

# **Hungarian Energy and Public Utility Regulatory Authority**



## **REPORT**

### **on the activities of the Hungarian Energy Office in 2012 and on the regulated energy and public utility sector**

**Budapest, December 2013**

## President's Welcome

The Authority's predecessor, the Hungarian Energy Office has become an acknowledged and unavoidable regulatory authority for the nearly two decades both on European and domestic energy markets, and now also on the field of public utility.

In the last few years, the role of national regulatory authorities – regulators – tended to grow all around Europe. The implementation of single energy markets tends to require a more intense international cooperation including both market couplings or European level harmonisation of network and commercial codes and the implementation of cross-border infrastructure projects. In addition, there are new European laws that delegate new competencies to national authorities. Regulators also face new challenges owing to the implementation of REMIT (Regulation on the integrity and transparency of wholesale energy markets) in addition to the implementation of climate policy targets formulated in the energy efficiency directive, since regulators are supposed to provide for the transparent operation of energy markets and establish an efficient market surveillance system similarly to financial markets.

With regard to cross-bordering projects, I deem it important to resume effectively representing national interests in order to prevent from any decisions that maybe disadvantageous to our country. The first milestone of this effort is the coupling of the Czech, Slovakian and Hungarian electricity day-ahead markets in September 2012 – due also to our preparatory works – in line with national interests.

Our regulatory competencies were increasing both on the field of price regulation and energy market surveillance. Since 2011, the Office has been charged of the complete regulatory tasks of district heating sector, which was successfully fulfilled in 2012, the first year of the complete surveillance. Since 2012, surveillance of water utility sector has been a responsibility of the Office in addition to the management of energy statistical data. Since 2013, the price regulation competence of the Office will extend not only to the whole fixed line public utility sector, but we are also supposed to prepare recommendation on utility charges for waste management to the competent Minister.

The extension of regulatory competencies resulted in the restructuring of the Office in Spring 2013, which can be regarded as the closure of the above described process. The Hungarian Energy and Public Utility Regulatory Authority established as the predecessor of the Hungarian Energy Office has been entitled to make decrees as an independent regulatory authority, by which the Office may comply with its tasks in a more efficient way and enforce customers' interests. The reinforced Office's main objective has remained to provide for sustainable energy and public utility supply at a reasonable price.

With these thoughts in mind, I kindly offer the annual report of the Office introducing the activity of the Office in 2012 to our Readers.

Budapest, December 2013

dr. Lajos Dorkota

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## Abbreviations

*ACER*: Agency for the Cooperation of Energy Regulators

*CAO*: Central Allocation Office GmbH

*CEE Region*: Central Eastern European region

*CEER*: Council of European Energy Regulators

*EÉT*: Council of Energy Interest Representation

*ERGEG*: European Regulators' Group for Electricity and Gas

*ERRA*: Energy Regulators Regional Association

*US decree*: Decree 29/2009. (VI. 25.) of the Minister of Transport, Communications and Energy (KHEM) on pricing mechanism related to universal service on natural gas market

*CE*: Consumer equivalent – an indicator that uniformly represents the number of consumers having resort to water utility supply (by water utility sectors taking into account also the capacity demand of consumers).

*Decree on offered price*: Decree 19/2010. (XII. 3.) of Minister of National Development (NFM) on natural gas sources offered for sale to universal service providers and the quality and price of domestic natural gas as well as the circle of those entitled to and obliged for the use of this natural gas

*Gas Act*: Act XL of 2008 on natural gas

*enforcement decree of Gas Act*: Government Decree 19/2009. (I. 30) on the enforcement of the provisions of Act XL of 2008 on natural gas

*GVH*: Gazdasági Versenyhivatal (Hungarian Competition Authority)

*Office*: Magyar Energetikai és Közmű-szabályozási Hivatal (Hungarian Energy and Public Utility Regulatory Authority)

*Waste Act*: Act CLXXXV of 2012 on waste

*LTA*: Long-term power purchase agreements for electricity generation and booking generation capacity in Hungary

*LTA decree*: Government Decree 149/2010. (IV. 29.) on the stranded cost compensation scheme of power plants

*LTA Act*: Act LXX of 2008 on given issues of electricity

*IEA*: International Energy Agency

*FIO*: Feed-in Obligation Scheme

*FIO-quote*: quantity of electricity subject to feed-in obligation

*Minister*: Minister of National Development

*NFM*: Nemzeti Fejlesztési Minisztérium (Ministry of National Development)

*OSAP*: Országos Statisztikai Adatgyűjtési Program (National Statistical Data Collection Program)

*District Heating Act*: Act XVIII of 2005 on district heating supply

*TVT*: Act LXVII of 2008 on boosting competitiveness of district heating supply

*Competition Act*: Act LVII of 1996 on the prohibition of unfair and restrictive market practices

*Electricity Act*: Act LXXXVI of 2007 on electricity

*enforcement decree of Electricity Act*: Governmental Decree 273/2007. (X. 19.) on the enforcement of certain provisions of Act LXXXVI of 2007 on electricity

*Water Utility Supply Act*: Act CCIX of 2011 on water utility supply

*enforcement decree of Water Utility Supply Act: Governmental Decree 58/2013. (II.) on the enforcement of certain provisions of Act CCIX of 2011 on water utility supply*

## Summary

This report introduces the activities of the Hungarian Energy Office as a government agency, which was operating as the predecessor of the Hungarian Energy and Public Utility Regulatory Authority in 2012, and gives an insight in the operation of the regulated sectors as well as in the most important events of the given year.

The Hungarian Energy Office was transformed and became an independent regulatory authority by the Act XXII of 2013 on the Hungarian Energy and Public Utility Regulatory Authority by 4 April 2013. This issue is, however, beyond the contents of this report.

## Legal Status and Responsibilities of the Authority

The Hungarian Energy Office (hereinafter Office) is one of the oldest European regulators since it was established in 1994. The scope of responsibilities and competences of the Office was significantly transformed, and its roles were extended in the last years. The scope of infrastructures that has to be overseen by the Authority now extends to electricity, natural gas, district heating and water utility supply as well as to the preparation of utility charges for waste management.

In addition, even the status of the Office operating earlier as a government agency with independent scope of responsibilities and competences has been changed. Since Spring 2013, it has been operating as an independent regulatory authority.

The responsibilities of the Office are determined by the following acts:

<i>Sector</i>	<i>Act</i>
<b>Electricity</b>	Act LXXXVI of 2007 on electricity (Electricity Act)
<b>Natural gas</b>	Act XL of 2008 on natural gas supply (Gas Act)
<b>District heating</b>	Act XVIII of 2005 on district heating supply (District Heating Act)
<b>Water utility supply</b>	Act CCIX of 2011 on water utility supply (Water Utility Supply Act)
<b>Waste management</b>	Act CLXXXV of 2012 on waste (Waste Act)

In addition to its traditional supervisory and regulatory tasks, the Office has other important responsibilities, as well. These include the operation of the national energy statistical data system, in the framework of which all energy data collection in the National Statistical Data Collection Program is made by the Office. The Office provides regular data supply both to Hungarian counterparts and international organisations.

The Office plays an active role in representing Hungarian interests in various international energy organisations (CEER, ACER, ERRA), and supports Government in shaping a uniform Hungarian position in the European energy policy. One of the success stories of its international activity is the coupling of Czech-Slovakian-Hungarian day-ahead markets on 11 September 2012.

The Office had regular connections also in 2012 with Hungarian counterparts (e.g.: Nemzeti Fogyasztóvédelmi Hatóság (Hungarian Authority for Consumer Protection, Gazdasági Versenyhivatal (Competition Authority of Hungary), Pénzügyi Szervezetek Állami Felügyelete (Hungarian Financial Supervisory Authority)), as well as civil consumer protection organisations.

Further information on the Office's activity is available at [www.mekh.hu](http://www.mekh.hu).

## Key events effecting regulated sectors in 2012

<p><b>1 January 2012</b> Water Utility Supply Act modified Act LXXXVII of 1990 on price setting by ceasing local governments of settlements and minister of water management to be a price authority.</p>	<p><b>1 January 2012</b> District Heating Act was amended so that it serves the protection of social, child welfare or public education institutions in charge of state or local government tasks with the prohibition of breaking their public utility agreement in the case of delayed payment in heating period.</p>	<p><b>1 January 2012</b> Prices in KHEM Decree 28/2009 (VI.25) on pricing mechanism of prices related to universal service on natural gas market (US price decree) were modified.</p>
<p><b>From 4 January 2012</b> Actors of district heating market started submitting their operational license for district heating generation and district heating supply to the Office.</p>	<p><b>8 February 2012</b> The Office initiated a workshop with actors of the sector on energy efficiency.</p>	<p><b>8 March 2012</b> The Office held an EU Market Integration Forum on the Draft Network Code for Requirements for Grid Connection applicable to all Generators.</p>
<p><b>26-30 March 2012</b> The Office hosted the experts of Ukrainian regulatory authority within Twinning project, and held presentations on given issues of regulation of natural gas market and consumer protection for a week, and organised study tours to Hungarian energy companies.</p>	<p><b>31 March 2012</b> The Office issued resolutions on the 2011 margin of universal service providers of electricity.</p>	<p><b>11 April 2012</b> The Office started asset and cost review of electricity distributors.</p>
<p><b>17 April 2012</b> The Office disclosed its recommendation 1/2012 on gas purchases for district heating suppliers and generators, which was welcome and basically successfully implemented by the district heating sector.</p>	<p><b>19 April 2012.</b> Cost review for universal service providers of electricity started.</p>	<p><b>25 April 2012</b> The resolution on measure of natural gas storage capacity contracting in order to provide for the safe supply of customers entitled to universal service of natural gas was issued.</p>
<p><b>4 May 2012</b> The Office hosted on a bilateral meeting the State Electricity Regulatory Commission of China.</p>	<p><b>5 June 2012</b> The Office submits its position to NFM based on a KIM request on the planned actions on entrepreneurs' insolvency included in the medium-term government programme aiming at administrative burdens of entrepreneurs.</p>	<p><b>1 June 2012</b> Resolutions on natural gas system use charges for the gas year of 2012/2013 were issued (13 pcs).</p>
<p><b>20 June 2012</b> AES Tisza Erőmű Kft. was granted a license for suspension of electricity generation activity.</p>	<p><b>27 June 2012</b> Amendment to Govt. Decree 212/2010. (VII. 1.) ordered the supervision of water utility supply to competence of the minister of national development. The Office started to establish a new unit responsible for water utility supply.</p>	<p><b>20 June 2012</b> Definition of household customer and given provisions on billing and settlement were modified in District Heating Act.</p>
<p><b>27 June 2012</b> The Office introduced on the EU Market Integration Forum and discussed with the representatives of the sector the Draft Network Code on Gas Balancing.</p>	<p><b>28 June 2012</b> Resolutions on balancing mechanisms of natural gas distribution in 2011 and on connection charges effective from 1 July 2012 were issued. An operational license for transmission system operation was issued for FGSZ Zrt.</p>	<p><b>4 July 2012</b> In accordance with inflation rules – with unchanged end user prices of natural gas – the margin of universal service providers included in KHEM Decree 29/2009 (VI.29) grew. There was a change in acknowledged exchange rates included in US decree.</p>

<p><b>5 July 2012</b> Outcomes of consumer satisfaction survey for 2011 were published.</p>	<p><b>16 July 2012</b> The Office closed the procedure on HUPX DAM prices, in the course which it did not declare illegal behaviour or market manipulation.</p>	<p><b>31 July 2012</b> Resolution on determining the volume of capacity contracted for the supply of customers entitled to universal service.</p>
<p><b>10 August 2012</b> Evaluation on security of supply provided by electricity distribution licensees and the transmission network licensee in 2011 and on Guaranteed Services provided in 2011 was published.</p>	<p><b>13 August 2012</b> MAVIR Zrt. was granted a license for transmission system operation.</p>	<p><b>30 August 2012</b> The Office submitted its proposal to the minister in charge of energy policy on prices of electricity sold for district heating suppliers, prices of district heating supplied to households and institutions under special treatment as well as district heating supply support.</p>
<p><b>1 September 2012</b> Amendment to natural gas US decree facilitating the simplification of discount for families with more than 3 children and the extension of the circle of applicants.</p>	<p><b>11 September 2012</b> Czech-Slovakian-Hungarian day-ahead electricity markets were coupled.</p>	<p><b>14 September 2012</b> The Office organised EU Market Integration Forum on the implementation of Regulation 1227/2011/EU on the transparency and integrity of wholesale energy markets (REMIT).</p>
<p><b>10 October 2012</b> The Office and NFM organised CEEE Forum in Budapest.</p>	<p><b>15 October 2012</b> Administrative proceedings for asset and cost review of distributors and MAVIR Zrt. were launched.</p>	<p><b>1 November 2012.</b> Decree 50/2011. (IX. 30.) NFM was completed by methodology of district heating price preparation.</p>
<p><b>16 November 2012</b> Minister of national development issued Instruction 31/2012. (XI. 16.) NFM on the Organisational and Operational Rules of the Hungarian Energy Office.</p>	<p><b>27 November 2012</b> Outcomes of voltage quality assessment of 2011 were published.</p>	<p><b>30 November 2012</b> The Office submitted its proposal to the minister of national development on draft decree on universal service prices of electricity for 2013.</p>
<p><b>5 December 2012</b> Majority shares of Tisza II. Power Plant of Tiszaújváros were acquired by Tisza Power Kft.</p>	<p><b>5 December 2012</b> The Office submitted a proposal to the minister on the regulation of application of profit cap, raising the possibility to break profit cap set in district heating price regulation in given exceptions in order to enhance investments and developments and preserve security of supply.</p>	<p><b>13 December 2012</b> For the interest of 10% overhead cost reduction, the Office submitted to the minister of national development its proposal on the amendment to Decree 51/2011 NFM (IX. 30.) on the support of district heating supply.</p>
<p><b>19 December 2012</b> The Office set electricity system use charges effective from 1 January 2013 by its resolution No. 1092/2012, and closed asset and cost review of distributors and MAVIR Zrt.</p>	<p><b>22 December 2012</b> Decree 78/2012 (XII. 22.) NFM declared electricity universal service prices effective from 1 January 2013.</p>	<p><b>28 December 2012</b> Resolutions including modified natural gas system use charges relating to overhead costs reduction coming into effect by 1 January 2013 (13 pcs).</p>



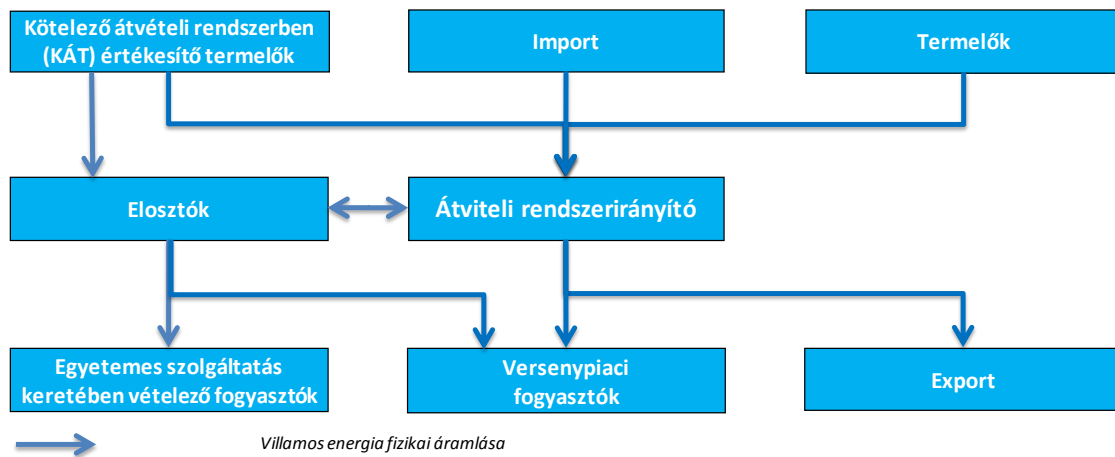
# I. Sectors Regulated by the Office

## Electricity

In the supply chain of electricity system, power generation companies sell the generated electricity to traders, who resell it on the wholesale market or supply it directly to customers. Electricity flows from generators to customers through transmission and distribution networks. Although the owners of this network infrastructure are in a monopol position, non-discriminatory access to this infrastructure has to be ensured by strict regulation in accordance with the legislation of the EU. The above activities are to be conducted by independent companies, which cannot be involved in production or trade.

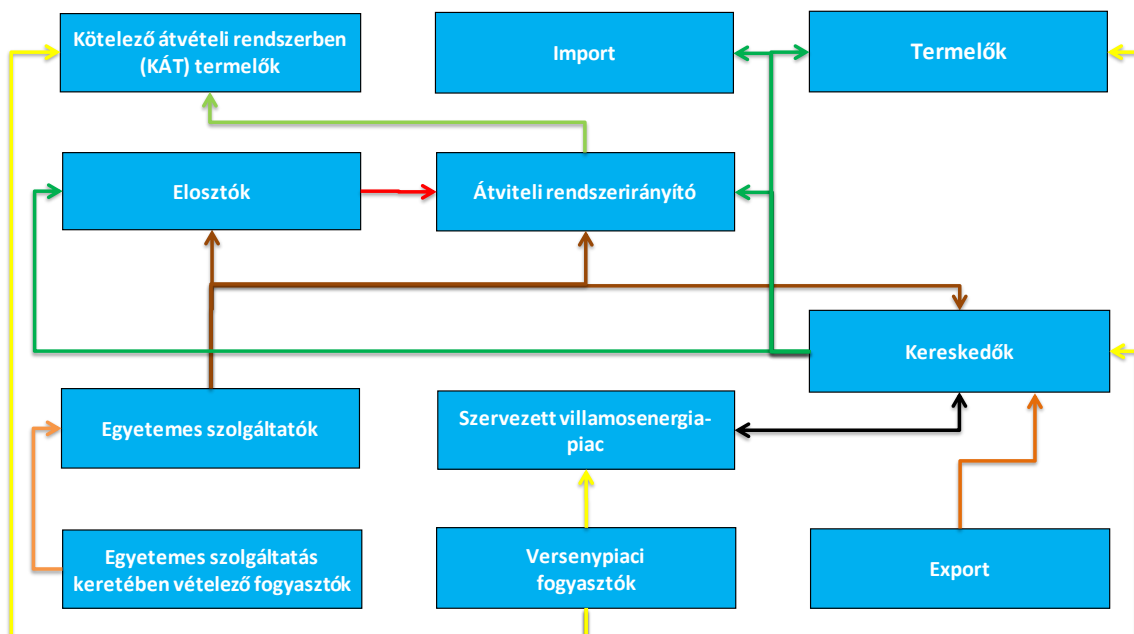
Essentially, the current structure of the Hungarian market took shape around 1995, when majority of large power plants, the then operating public utility suppliers as well as distribution companies were privatised.

**Figure 1 Structure of Hungarian electricity market in 2012 (physical flow) (FIO generators; Import; Generators; Distributors; Transmission System Operator; Customers entitled to Universal Service; Free market customers; Export)**



Source: MEKH

**Figure 1 Structure of Hungarian electricity market in 2012 (financial flow) (FIO generators; Import; Generators; Distributors; Transmission System Operator; Universal Service Providers; Organised Power Market; Traders; Customers entitled to Universal Service; Free market customers; Export)**



Source: MEKH

Currently, domestic power plants sell the majority of their production in the framework of medium-term power purchase agreements concluded with the former public utility wholesaler (MVM), while their renewable- and waste-based production is bought by the transmission system operator (MAVIR Zrt.) in the framework of feed-in obligation at a price set in the relevant decree. Approximately one fifth of power plant production is sold directly to free market in the framework of short-term (mostly yearly) contracts. Typically, MVM has agreements with power plants for 5 to 8 years. MVM sells half of the electricity purchased from domestic power plants through framework agreements, power purchase agreements to universal service providers supplying electricity for customers entitled to universal service (households and small customers, bodies governed by public law etc.). In 2012, more than one third of the domestic electricity consumption took place through this channel falling under authority price regulation.

MVM sells approximately half of the available power plant electricity through bilateral agreements or public capacity auctions to traders. Although traders in the first years of market opening primarily based their activity on import sources, in the course of a few years (after initial excess import capacities disappeared) power plant capacities contracted by MVM have become the most important source of purchase for free market traders in addition to import.

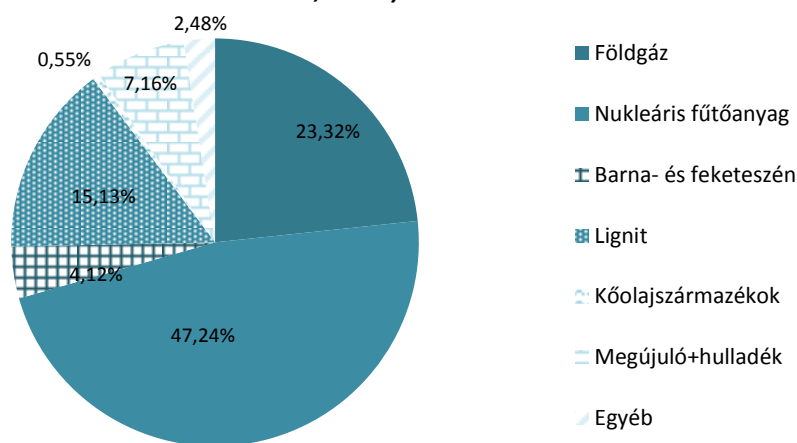
A significant part of primary purchases of traders goes through a secondary trade within the trading sector before reaching final customers or export markets. The trade of renewable- and waste based electricity falls in a special trading category. This electricity has to be purchased from generators by the system operator in the framework of feed-in obligation (FIO) scheme (at a price set by the relevant decree, in a volume and period determined in the license issued by the Office). Traders are obliged to buy electricity from MAVIR sold in the framework of FIO and the relating balancing power in the proportion of their sales to customers.

The operation of domestic electricity market tends to be determined by regional factors, since a significant part of the electricity trade toward the Balkans passes through Hungary. This electricity transit has a significant impact also on domestic production. Significant part of the domestic power plants cannot use their full capacity because of the more competitive Polish coal based electricity import, which is cheaper than domestic production.

## Generation and wholesale market

Accumulated installed capacity of domestic power plants amounted to 10 094 MW by the end of 2012, out of which four blocks of Paks Nuclear Power Plant accounted for 2000 MW. Further significant power plant capacities are the natural gas-fired Dunamente Power Plant (1928 MW), and the basically lignite-fired Mátra Power Plant (950 MW).

**Figure 2 Fuel mix of electricity generation in 2012 (Natural gas; Nuclear; Brown coal and hard coal; Lignite; Oil; Renewable sources and waste; Other)**



Source: MEKH

The annual average overall energy efficiency of domestic power plants in 2012 was 42.82%, while their average age was 22.1 years (power plants above 50 MW 23.9 years; ones below 50 MW 10.3 years).

**Table 1: Market shares of domestic power generation companies in terms of installed capacities and production in 2012**

	Installed capacities (MW)	Market shares (according to capacities) <sup>11</sup>	Gross production (TWh)	Market shares (according to production) <sup>12</sup>
MVM <sup>1</sup>	2 766	27.4%	16.8	39.7%
GDF SUEZ <sup>2</sup>	1 928	19.1%	2.1	4.9%
AES <sup>3</sup>	1 237	12.3%	0.1	0.3%
RWE <sup>4</sup>	950	9.4%	6.1	14.4%
E.ON <sup>5</sup>	528	5.2%	1.5	3.6%
Alpiq <sup>6</sup>	403	4.0%	1.6	3.8%
EDF <sup>7</sup>	396	3.9%	1.1	2.5%
Other domestic power plants <sup>8</sup>	1 886	18.7%	5.1	12.0%
<b>Total domestic power plants</b>	<b>10 094</b>	<b>100%</b>	<b>34.4</b>	<b>81.2%</b>
Net import			8.0	18.8%
<b>Total consumption</b>			<b>42.4</b>	<b>100%</b>
<b>4 biggest power generation companies<sup>9</sup></b>	<b>6 881</b>	<b>68.2%</b>	<b>25.1</b>	<b>59.2%</b>
HHI-index <sup>10</sup>		<b>1 354.5</b>		<b>1 805.2</b>

Source: MEKH

**Note:**

Power generation companies indicated in the Table are investor groups owning power plants with majority shares. Groupings according to companies exclusively include power plants with installed capacity of 50 MW and above.

1. MVM: Paksi Atomerőmű Zrt., Vértesi Erőmű Zrt., MVM GTER Zrt., BVMT Bakonyi Villamos Művek Termelő Zrt.
2. GDF SUEZ: Dunamenti Erőmű Zrt.
3. AES: AES Borsodi Energetikai Kft., AES-Tisza Erőmű Kft.1

<sup>1</sup> Owned by Tisza Power Kft. since 5 December 2012. Its new name is Tisza Power Plant Kft. It conducted generation exclusively in the ownership of AES, therefore was included in that company.

4. RWE: Mátrai Erőmű Zrt.
5. E.ON: E.ON Erőművek Kft., Debreceni Kombinált Ciklusú Erőmű Kft.
6. Alpiq: Csepeli Áramtermelő Kft.
7. EDF: Budapesti Erőmű Zrt.
8. Cumulated share of power plants of market share below 5%.
9. Based on installed capacities and production, the three biggest power generation companies are MVM, GDF SUEZ and RWE.
10. Concentration index is higher when calculating with available or effectively available capacities, and lower when the calculation includes import capacities.
11. Calculated on the basis of gross installed capacities.
12. Gross production of the given power generation company divided by total national consumption.

Measured by conventional tools, the Hungarian generation market was characterised by a moderate concentration also in 2012. In the course of the privatisation of the power plant sector between 1995 and 1997, a significant part of power plants belonging to the vertically integrated state company (Magyar Villamos Művek Tröszt, Hungarian Electric Works Trust) was bought by various international strategic investors (Electrabel, RWE, AES). Total share of the four biggest generators accounted for 68.2% in terms of installed capacities, while 59.2% in terms of generation. The Herfindahl-Hirschman Index (HHI) measuring the concentration of a market and ranging between 0 and 100 varies between 1 350 and 1810 – depending on the calculation method – which indicates a less concentrated and multiplayer market.

Contrary to the relatively low concentration of power plant capacities, wholesale is characterised by a higher concentration. It is due to the fact that the former public utility wholesaler (MVM Co.) contracted majority of capacities required for supplying end users in the years of privatisation of the power plant sector (1995–1997) by long-term power purchase agreements (LTAs<sup>2</sup>). However, the resolution of the European Commission dated on 4 June 2008 ordered the termination of all LTA as well as reimbursement of prohibited state aids by the given power plants. The relating agreements were repealed by the Act LXX of 2008 on certain issues related to electricity (hereinafter LTAs Act) by 31 December 2008.



The Office monitors the rate of return of the given power plants annually until the end of the support program<sup>3</sup>, and compiles an accumulated settlement on the given power plants at the end of the support program. In addition, the Office annually gives information to the NFM on the return rate of the given power plants (Budapest Power Plant, Dunamenti Power Plant).

In order to guarantee the domestic security of supply, the MVM has concluded new, 5 to 8-year agreements with majority of the given power plants. The new agreements allowed the MVM Partner (hereinafter MVM) to dispose over 60% of the total available capacities of domestic large power plants in 2012. Consequently, two thirds of net production of domestic power plants could be purchased practically through the MVM.

<sup>2</sup> More details on LTAs can be found in Sub-chapter '2.4 Support systems– Stranded cost support'.

<sup>3</sup> E.g. until the date of termination of the original LTAs.

**Table 2: Sales of national generation companies**

	Electricity Sales (TWh)			Shares
	2010	2011	2012	2012
<b>MVM</b>	21.1	22.6	22.0	<b>68.8%</b>
<b>Traders</b>	4.8	5.1	6.6	<b>20.6%</b>
<b>FIO</b>	7.3	4	1.9	<b>5.9%</b>
<b>Other</b>	<b>1.4</b>	<b>1.8</b>	1.5	<b>4.7%</b>

Source: MEKH

The structure of electricity wholesale market is different for sales to universal service providers and to traders. In 2012, universal service providers went on purchasing a crucial part of the electricity they needed through a single channel. In the universal service segment falling under authority price control (however, its size is merely a fraction of public utility), MVM remained a dominant player in 2012 with its unchanged – 88% – market share. Although there was a significant drop in 2011 in the volume of obligatory feed-in due to the withdrawal of co-generation from FIO scheme, the share of MVM and other sources did not show any significant increase in the power purchase pattern of universal service providers due to the moderate shrinking of universal service.

Purchases of traders acting on free market – contrary to universal service providers – are determined not only by customers' needs but also by wholesale activity. Primary purchases (e.g. purchases excluding trade among traders) of traders were essentially based on four sources in 2012.

**Table 3: Purchase patterns of universal service providers**

	Electricity purchases (TWh)			Shares
	2010	2011	2012	2012
<b>MVM</b>	10.1	10.8	10.8	<b>88.3%</b>
<b>FIO</b>	3.3	1.7	0.6	<b>5.1%</b>
<b>Other</b>	<b>0.7</b>	<b>0.8</b>	<b>0.8</b>	<b>6.6%</b>

Source: MEKH

These were import, electricity sales of power plant capacities contracted by MVM, domestic power plants' sales and since 2008 resale of electricity fed in by MAVIR in the framework of FIO as well as the electricity deriving from the balancing of FIO balance circle. The electricity purchased from primary sources (after a significant part also went through trader-to trader transactions) is sold on domestic wholesale and retail markets on the one hand, and abroad on the other hand.

**Table 4: Purchase pattern of traders<sup>1</sup>**

	Electricity purchases (TWh)			Shares
	2010	2011	2012	2012
Import	14.5	23.3	23.2	56.5%
MVM	10.3	10.6	9.9	24.3%
Domestic power plants	4.8	5.1	6.5	15.8%
Other <sup>2</sup>	4.3	2.8	1.4	3.4%

Source: MEKH

**Note:**

1. Primary purchase of traders is the electricity purchased directly from domestic power plants or import, and from MVM. The Table excludes (the otherwise significant) trader to trader and organised electricity market purchases.
2. Eg.: Balancing energy purchased from system operator, and the electricity purchased in the framework of FIO.

Although the organised electricity market (energy exchange) was established in Hungary, electricity trade was dominated by bilateral contracts in 2012. As a comparison, the trading volumes in 2012 were 6.3TWh both on the physical futures (PhF) and day-ahead (DAM) markets on the HUPX Hungarian Power Exchange Ltd., while trader to trader sales in 2012 accounted for approximately

160 TWh based on the traders' data report. In 2012, HUPX's DAM transactions exceeded 17% of gross domestic consumption, which is much higher than it was expected at the launch of organised market in 2010.

### ***Retail market***

Since market opening in 2003, retail market has been characterised by a dual structure: there is a segment falling under authority pricing and a segment of free market prices. The relative weight of the two segments, however, has shifted to a large extent since 2008. Public utility service falling under authority pricing – which was earlier available for each customer – has been replaced since 2008 by universal service, which is available now only for a much narrower circle of customers.

Customers entitled to universal service are dominantly supplied by their former public utility suppliers now in the possession of universal service license. Universal service providers are obliged to sell electricity and conclude contract with customers entitled to universal service.

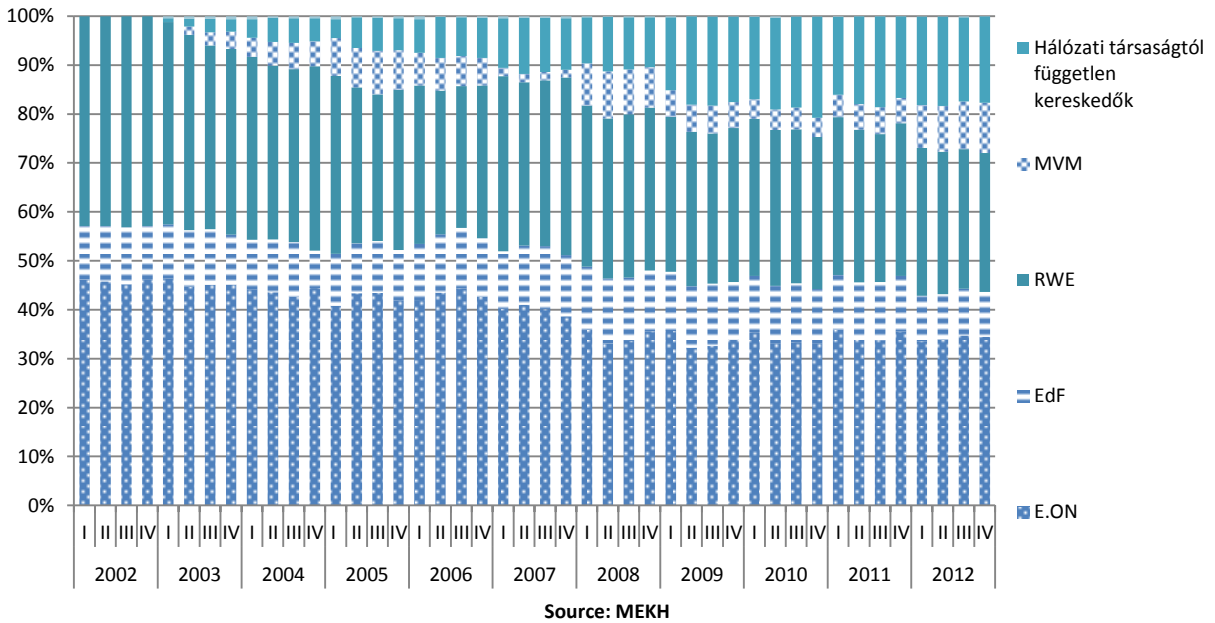
Customers not entitled to universal service had purchased energy from free market (primarily large customers), or entered free market only by the termination of public utility segment (primarily medium and small customers). When public utility sector ceased to exist in 2008, small customers, who entered free market generally remained at their former supplier, who went on supplying these customers in the possession of a trading license.

Companies having universal service and trading license – E.ON Energiaszolgáltató Kft. (E.ON Energy Supplier Inc.), Budapesti Elektromos Művek (ELMŰ) Zrt. (Budapest Electric Works), Észak-magyarországi Áramszolgáltató (ÉMÁSZ) Nyrt. (North Hungarian Power Supplier Co.) and EDF Dél-magyarországi Áramszolgáltató (EDF DÉMÁSZ) Zrt. (EDF South Hungarian Power Supplier Co.) – also operate distribution network through their subsidiaries or affiliates. Universal service providers are owned by three multinational companies – E.ON, RWE and EDF – which supply customers not only through the above mentioned companies but also via other trading companies. The overall share of these companies in the whole domestic retail market was very significant, 73% also in 2012, in other words, they lost merely one fourth of their market within 10 years of market opening.

High market concentration was decreased by the fact that such traders appeared on retail market at the time of market opening who undertook to supply customers in addition to their domestic wholesale activity. These traders include both multinational enterprises with several regional affiliates and small domestic traders. In 2012, there were as much as 30 traders active on the retail market who were not owned by any domestic distribution network companies. Their share of 18% was similar to 2011. However, MVM's share grew to a higher extent and approached 10%.

Compared to 2011, there was a fall in the three big companies' (E.ON, EDF, RWE) market share in 2012. Their market position remained outstandingly strong since a crucial proportion of household customers buy electricity in the framework of universal service. However, it is important to emphasise that traders of the three big companies supply hardly half of three-thousand customers buying power from free market (primarily small and medium customers not entitled to universal service).

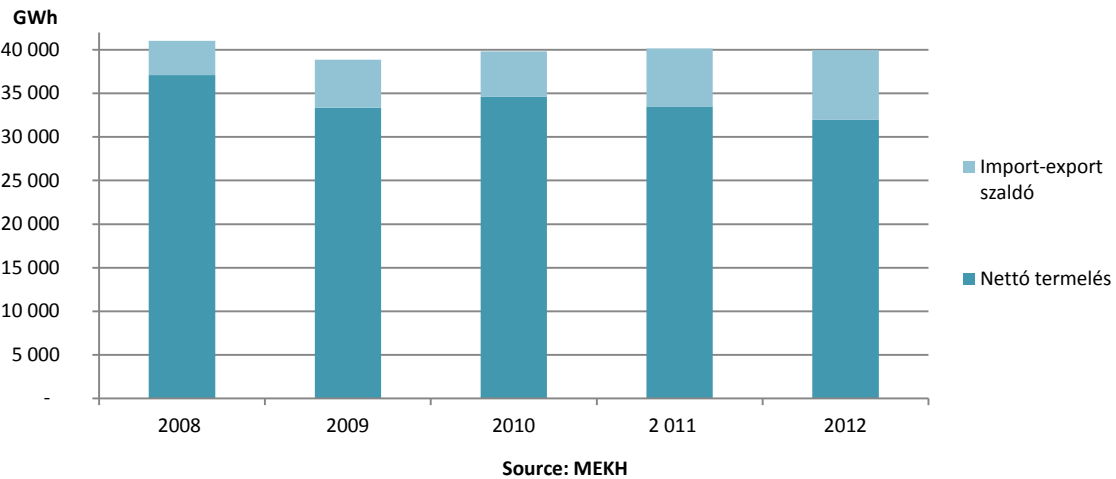
**Figure 3: Changes in retail market shares of respective investors (2002-2012) (Power plants; Independent traders; MVM, RWE, EdF, E.ON)**



**Market events and regulatory changes**

Currently, electricity market is shaped by the relations of regional demand and supply. Hungary’s natural gas-fired power plants cannot compete with the cheap Polish coal-based power production. Due to a fall in consumption, plunging CO<sub>2</sub> quota prices and growing renewable production, the share of gas-fired power plants has robustly shrunk even in our region.

**Figure 4: Electricity generation and net import (Net import; Net generation)**



There was a significant fall also in natural gas-based co-generation. Termination of obligatory feed-in support financed by customers resulted in the survival of power plants that are able to generate power in an economical and socially accepted way. Due to this fact, the capacity factor of domestic power plants were low in 2012, thus the falling out generation was replaced by import. This led to the fact that net import exceeded one fifth of domestic gross consumption.

It was an important step forward in the allocation of cross-border capacities that intra-day capacity allocation has been introduced on the Austrian-Hungarian intersection in addition to the formerly introduced Romanian-Hungarian, Slovakian-Hungarian and Serbian-Hungarian intra-day capacity allocations. Although the applied technical solutions are not final solutions, even in their current form, they still contribute to the more flexible operation of the Hungarian power market. Another

significant change was the replacement of the former explicit auction by a much more efficient implicit allocation on the Slovakian-Hungarian intersection by coupling Czech, Slovakian and Hungarian markets.

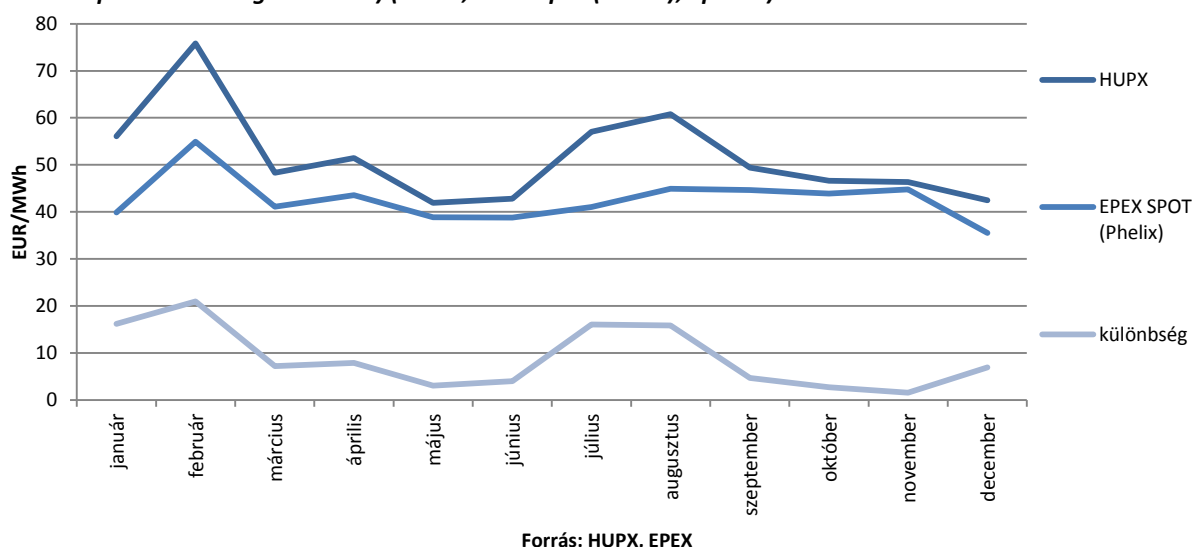
Yearly cross-border capacity prices for 2013 from the key import directions (Austria and Slovakia) exceeded those for 2012. Auctions resulted in a settlement price of 4.94 EUR/MWh (yearly cross-border capacity price for 2012 is 4.52 EUR/MWh) in the case of Austria and 4.55 EUR/MWh (yearly cross-border capacity in 2012 costs 4.15 EUR/MWh) in the case of Slovakia. As a contrary, yearly cross-border capacity prices of transmissions from Romania declined: the auction price was 0.5 EUR/MWh compared to the last year's 1.64 EUR/MWh.

Settlement prices of import capacity from Croatia and Serbia, while settlement prices of export capacity to each intersection were around and below 0.5EUR/MWh.

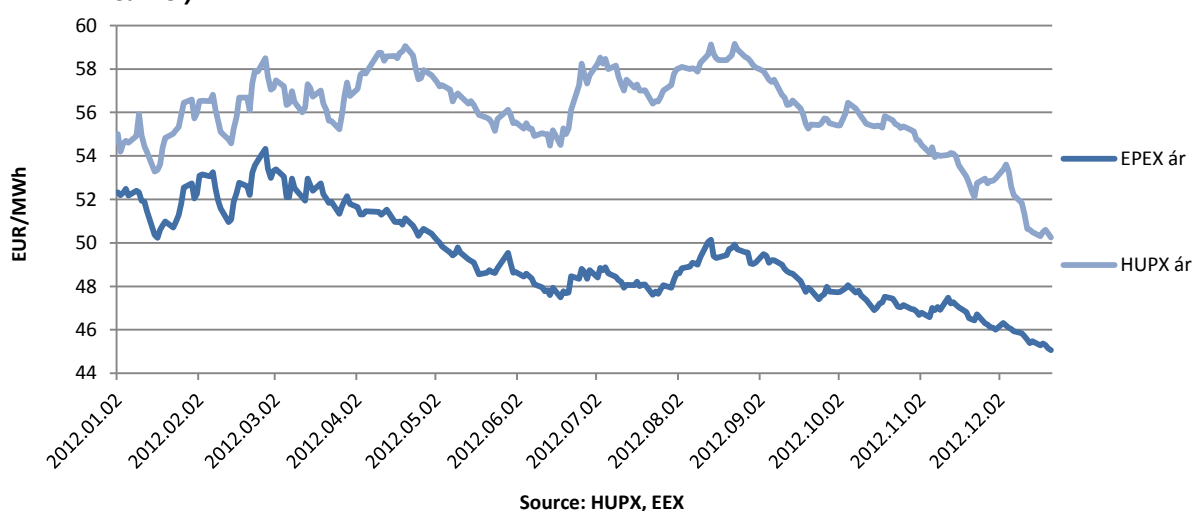
Wholesale prices were primarily influenced by regional impacts, since the electricity demand from the Balkans has lifted prices above West European EPEX prices since 2011. However, the coupling of the Czech-Slovakian-Hungarian day-ahead power markets launched on 11 September 2012 had a positive impact on Hungarian prices by moderating price differences by the end of the year.



**Figure 5: Monthly average of spot prices on Hungarian (HUPX) and German (EPEX SPOT Phelix) power exchanges in 2012 (HUPX; EPEX Spot (Phelix); Spread)**



**Figure 6: Daily settlement prices of year-ahead baseload products on Hungarian (HUPX) and German (EEX) power exchanges (HUPX: front year physical future – YR-13 base; EEX: Phelix Base Year Future – Cal 13)**



In 2012, approximately 300 thousand customers bought power from free market. The share of universal service within the total retail market was around 35%. Last years – including 2012 – witnessed a fall in the share of universal service within the total market. The number of customers on free market grew by approximately 100 thousand in the course of 2012 (primarily due to the activity of Magyar Telekom Távközlési Ltd. (Hungary’s leading ICT provider).

**Table 5: Regulated (Universal Service) and free market consumption ratios to overall consumption volumes**

	2009	2010	2011	2012
Free market	60.0	60.8	62.9	64.8
Universal Service	40.0	39.2	37.1	35.2

Source: MEKH

### **Licensing and supervision of organised electricity market**

In 2012, there was not any new license issued for organised power market, however, the license issued earlier for organised power market to the Hungarian Affiliate of the Power Exchange Central Europe a.s. residing in Prague was withdrawn on the request of the licensee.

Accordingly, in Hungary exclusively HUPX Hungarian Power Exchange Ltd. (HUPX) has such license. HUPX started its day-ahead electricity market (spot market) with 10 members on 10 July 2010. The number of members amounted to 48 by the end of 2012. The increasing trading volume witnessed by the years 2010 and 2011 carried on also in 2012, the average monthly trading volume on the day-ahead market was close to 527 GWh, while the average monthly increase in terms of volume accounted for 25 GWh. Trading in December 2012 exceeded 761 GWh, which counted for a record in the operation of the organised electricity market in Hungary.

In 2012, the volume of total trade exceeded 6 TWh, which accounts for nearly 15% of domestic gross electricity consumption. The highest daily peak so far was reached on 12 December 2012 with more than 34 GWh doubling the record in 2011.

HUPX Physical Futures was launched on 19 July 2011 with 10 members, which increased to 28 by the end of 2012. Besides, the organised power market ensures services supporting OTC trading. In 2012, the trading volume of physical futures exceeded 6 TWh. The monthly trading volume reached its peak in November with 2.1 TWh (contrary to 0.46 TWh in December 2011), while the daily peak was registered by HUPX on 5 November 2012 with 248 GWh. Volume of OTC trade exceeded 1 TWh in 2012.

One of the most important event on HUPX – and on the Hungarian electricity market – was the coupling of Czech, Slovakian and Hungarian power markets on 11 September 2012, which resulted in approaching prices on the given power exchanges, moderating price fluctuation on HUPX and significantly decreasing prices.

In order to be able to implement Regulation (EU) No 1227/2011/EU on wholesale energy market integrity and transparency (REMIT), the Office has to prepare legislation and monitor markets since 2012.

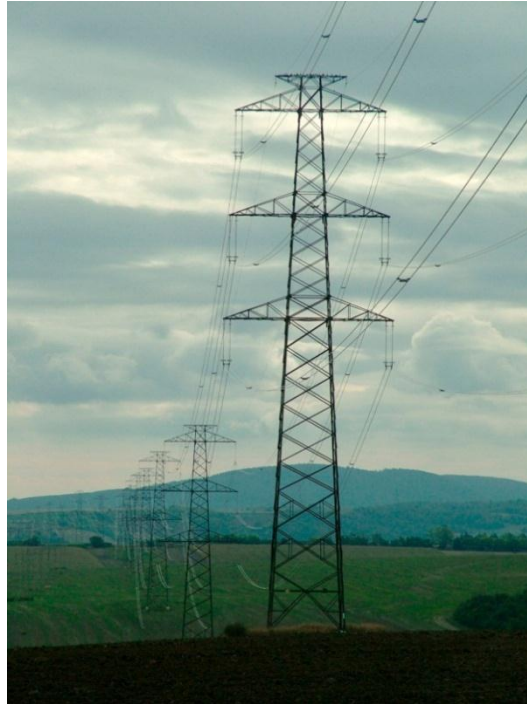
Power exchange prices are monitored and analysed accordingly, on the basis of which the Office inspected the development of HUPX spot prices. Based on that inspection, the Office found that HUPX DAM prices sensitively reacted to the analysed market changes (termination of FIO of co-generation and changes of regional demand and supply), which resulted in a significant premium in the Hungarian market compared to the region's and neighbouring countries' DAM prices. In addition, the Office obliged HUPX to inform the Office without delay as soon as it identifies any irregular phenomena on the market.

### ***Allocation of cross-border capacities and congestion management***

Cross-border capacity is the transmission capacity that allows cross-bordering electricity transmission. Congestion occurs when electricity transmission demand exceeds transmission capacity.

In the Central Eastern European region (hereinafter CEE Region), it is the CAO ([www.central-ao.com](http://www.central-ao.com)) that manages congestions on the basis of net transmission capacity (NTC) in the framework of coordinated auction among the following transmission system operators:

- APG Austrian Power Grid AG (earlier VERBUND APG AG);
- CEPS a.s.;
- Elektro-Slovenija, d.o.o.;
- MAVIR Zrt.;
- PSE-Operator S.A.;
- SEPS, a.s.;
- TenneT TSO GmbH (earlier E.on Netz GmbH);
- 50Hertz Transmission GmbH (earlier Vattenfall Europe Transmission GmbH).



An important decision effecting CAO and relating to auctions in 2013 was made at the end of 2012. Accordingly, yearly, monthly and daily capacity auctions on the Croatian-Hungarian intersection are made by CAO in 2013.

## Natural gas

### ***Natural gas market model***

In the present natural gas market model, import and domestic natural gas are sold to Hungarian customers by traders and universal service providers. Considering price regulation and security of supply, the trader having long-term agreement for Russian import sources (E.ON Natural Gas Trade Ltd.) has a special position.

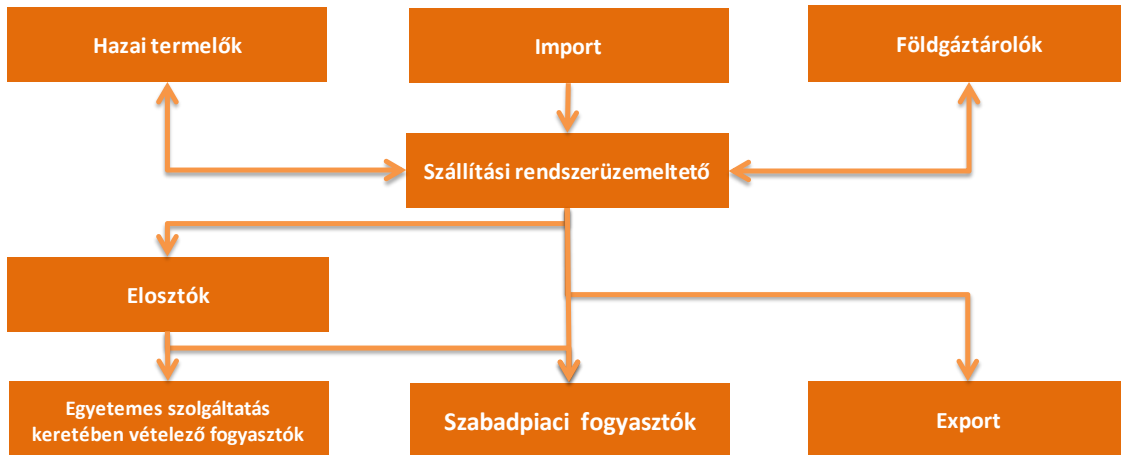
The long-term agreement is a guarantee for universal service providers to have sufficient import sources to supply household and small customers. Hungary has both a Western and an Eastern entry point for accessing the sources. In 2012, the demand for capacity at the entry point on the Austrian-Hungarian border from Baumgarten (HAG-pipeline) was higher than the available capacity – due to natural gas sources available on the West European spot markets and cheaper than the Russian gas contracted by long-term agreements.

The Serbian, Croatian and Romanian cross-border capacities operating in 2012 witnessed only exports/transits, although the Croatian and Romanian cross-border pipelines were constructed so that these may be suitable for bidirectional transport. The extension of existing cross-border capacities and the planned Slovakian-Hungarian natural gas cross-border pipeline as well as other parts of the North-South corridor may serve for improving security of supply and contribute to the diversification of routes.

Seasonality of households' natural gas consumption including the increasing natural gas demand in the winter heating period requires supply from natural gas storages injected in summer in addition to the existing import sources and domestic production. In order to provide for the balance of the interoperating natural gas system, the transmission system operator, system operators and system users as well as traders have a continuous cooperation. A strategic storage capacity has been

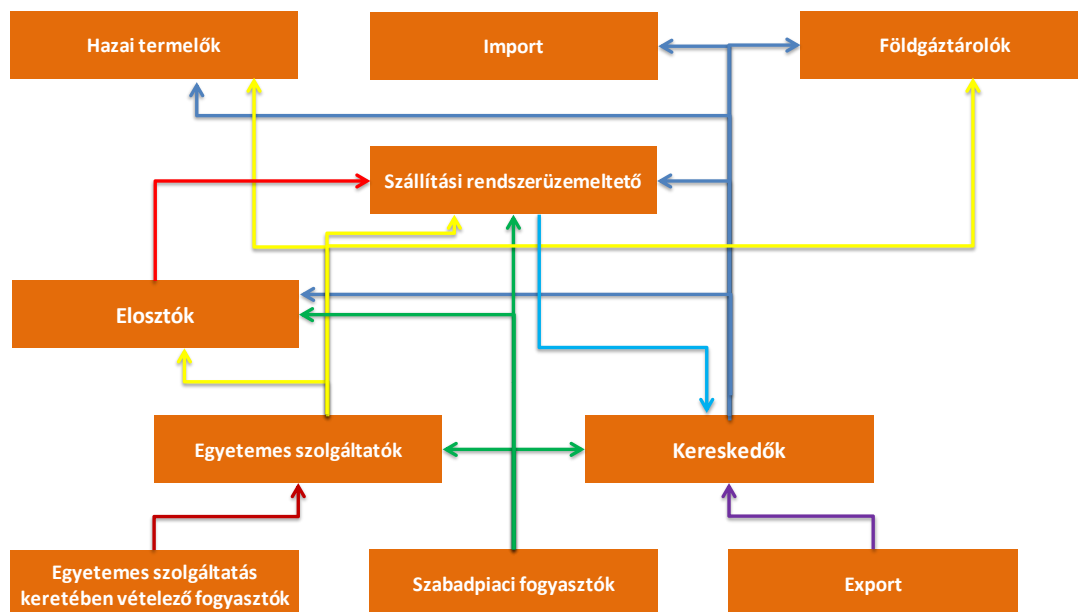
separated in designated natural gas storages primarily in order to supply household customers in the case of a possible cut of import sources.

**Figure 8: Structure of Hungarian natural gas market in 2012 (physical flow) (Domestic production; Import; Storage; Transmission System Operator; Distribution; Universal Service Customers; Free market customers; Export)**



Source: MEKH

**Figure 9: Structure of Hungarian natural gas market in 2012 (financial flow / contractual relations) (Domestic producers, Import, Natural gas storages, Transmission System Operator, Distributors, Universal service providers, Traders, Universal service customers, Free market customers, Export)**



Source: MEKH

Transport, distribution and storage are monopol activities, therefore strict rules have to be applied in accordance with the European norms. These rules are the non-discriminatory assess to infrastructure and the unbundling of these activities from production and trade.

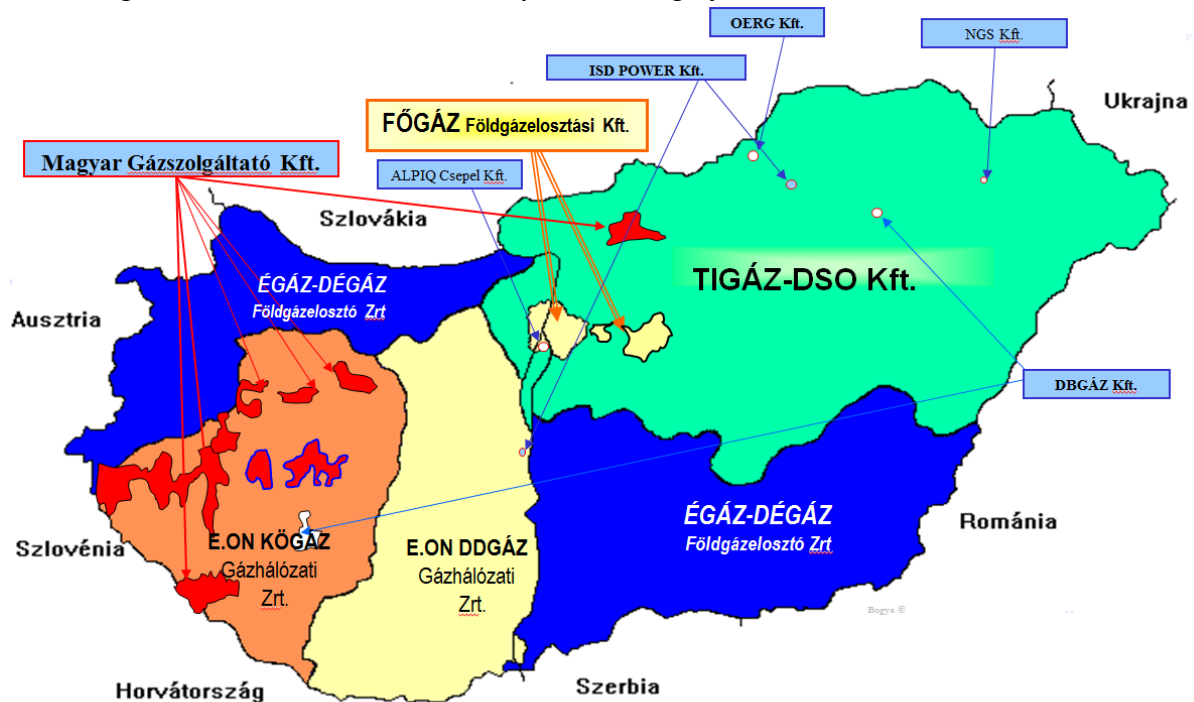
FGSZ Földgázz szállító Zrt. (FGSZ Natural Gas Transmission Ltd.) owned by MOL is responsible for the operation of natural gas system and transmission network, while also Magyar Gáz Tranzit Zrt.

(Hungarian Gas Transit Ltd.) owned by MVM in nearly 50%, has a license for natural gas transmission.

There are ten distribution companies in Hungary: ALPIQ Csepeli Erőmű Kft., ÉGÁZ-DÉGÁZ Földgázelosztó Zrt., E.ON Dél-dunántúli Gázhálózati Zrt., E.ON Közép-dunántúli Gázhálózati Zrt., FŐGÁZ Földgázelosztási Kft., ISD POWER Energiatermelő és Szolgáltató Kft., Magyar Gázszolgáltató Kft., NATURAL GAS SERVICE Ipari és Szolgáltató Kft., OERG Kft. and TIGÁZ-DSO Földgázelosztó Kft. In addition, DBGÁZ Kft. also has a license for natural gas distribution however, it did not conduct such activity in 2012.

MMBF Földgáztároló Zrt. and E.ON Földgáz Storage Zrt. have license for natural gas storage.

**Figure 8 Natural Gas Distribution Companies in Hungary**



Source: MEKH

### Wholesale

Imported natural gas sources derive overwhelmingly from Russia. Dominantly, also the natural gas coming from the Austrian Baumgarten through the HAG pipeline and the natural gas purchased from Gaz de France and E.ON Ruhrgas is of Russian origin. The ratio of domestic production and import has been the same around 20–80% for years. 2012 was the second time when the volume of import on HAG pipeline from Western direction exceeded import from the East due to the former mentioned large volume of LNG purchased and sold on West European spot markets at lower price than Russian gas.

In its resolution dated on 21 December 2005<sup>4</sup>, the DG Competition of the European Commission approved E.ON Ruhrgas International AG's 100% acquisition of shares in MOL Földgázellátó Rt. and MOL Földgáztároló Rt. subject to conditions.

One of these conditions is the implementation of Gas Release Program, which means that E.ON Ruhrgas AG shall offer a yearly amount of 1 billion m<sup>3</sup> natural gas for sale on natural gas market for 8

<sup>4</sup> Case No COMP/M.3696-E.ON/MOL

years from 2006 to 2013. This amount shall be sold on auctions in the given years, on which the yearly 1 billion m<sup>3</sup> shall be broken down to lots as follows:

- 5 lots of 100 million m<sup>3</sup>,
- 5 lots of 50 million m<sup>3</sup>,
- 10 lots 25 million m<sup>3</sup>.

E.ON stakeholders are excluded from these auctions.

In accordance with the governing provisions, a natural gas auction was announced in March 2012, which, however, failed because of lacking valid qualifications submitted by the potential buyers.

The composition of natural gas sources in 2012 is described in the table below:

**Table 6 Natural gas sources**

	<b>bcm</b>	<b>%</b>
<b>Yearly import and domestic production:</b>	10.40	100
<b>Domestic production:</b>	2.23	21.44
<b>Import:</b>	8.17	78.56
<b>– from Eastern direction:</b>	3.57	34.33
<b>– from Western direction:</b>	4.60	44.23

Source: MEKH

### **Retail Market**

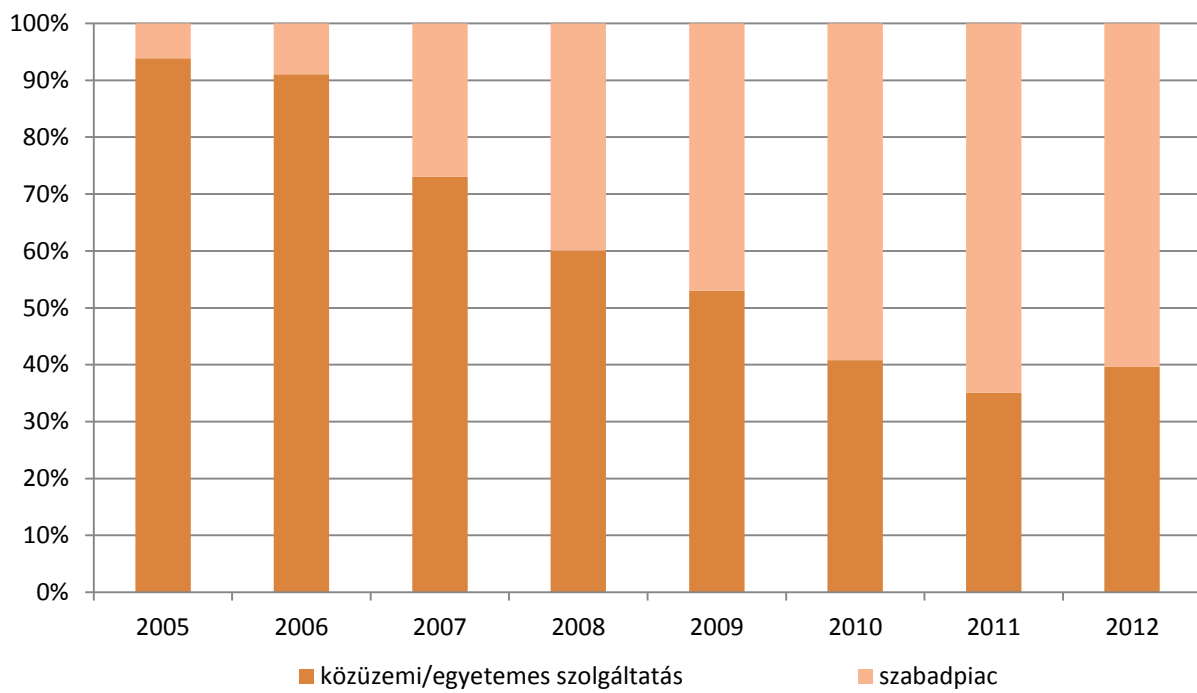
Retail market has been characterised by a dual system since market opening in 2014: there are a segment where prices are set administratively and another segment where prices are set on free market. The relative weight of the two segments gradually shifted to the benefit of free market parallel to market opening. Public utility segment with administratively set prices, where all customers were eligible, was replaced on 1 July 2009 by universal service, which relates to a much narrower circle of eligible customers.

Dominantly, customers entitled to universal service are supplied by their former public utility suppliers now in the possession of a license for universal service providers. Universal service providers are bound by a natural gas sales and contracting obligation toward customers eligible for universal service. A part of customers not entitled to universal service had purchased energy from free market even earlier (primarily large customers), while another part entered free market by the termination of public utility segment (small and medium customers). By the termination of public utility supply, small and medium customers entering free market on 1 July 2009 typically stayed with their former suppliers, who conducted this activity in the possession of a license for trade.

Companies having both universal service and trading licenses – Fővárosi Gázművek Zrt., E.ON Energiaszolgáltató Kft., GDF SUEZ Energia Magyarország Zrt. and TIGÁZ Zrt. – have interests through their affiliates or joint ventures in the operation of distribution networks. Universal service providers are owned by multinational companies like E.ON, RWE, Eni and GDF (in the case of Főgáz Zrt. it is the municipality of Budapest that has majority shares instead of RWE). The total share of these companies on the total domestic retail market is very significant, 80% even 8 years after market opening in 2004.

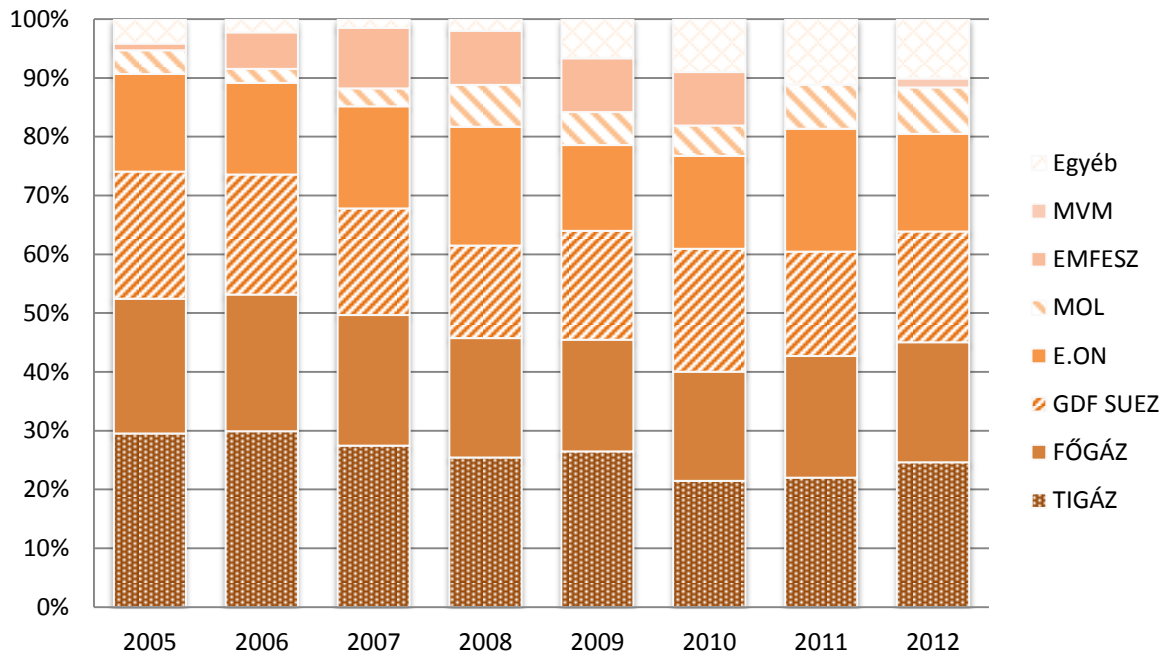


**Figure 8 Shares of regulated and free market segments in terms of quantity of natural gas sold on retail market per calendar years (2005–2012) (Public utility/Universal service; Free market)**



Source: MEKH

1. ábra: Shares of investment groups in terms of quantity of natural gas sold on retail market (2005–2012)



Source: MEKH

### Market events

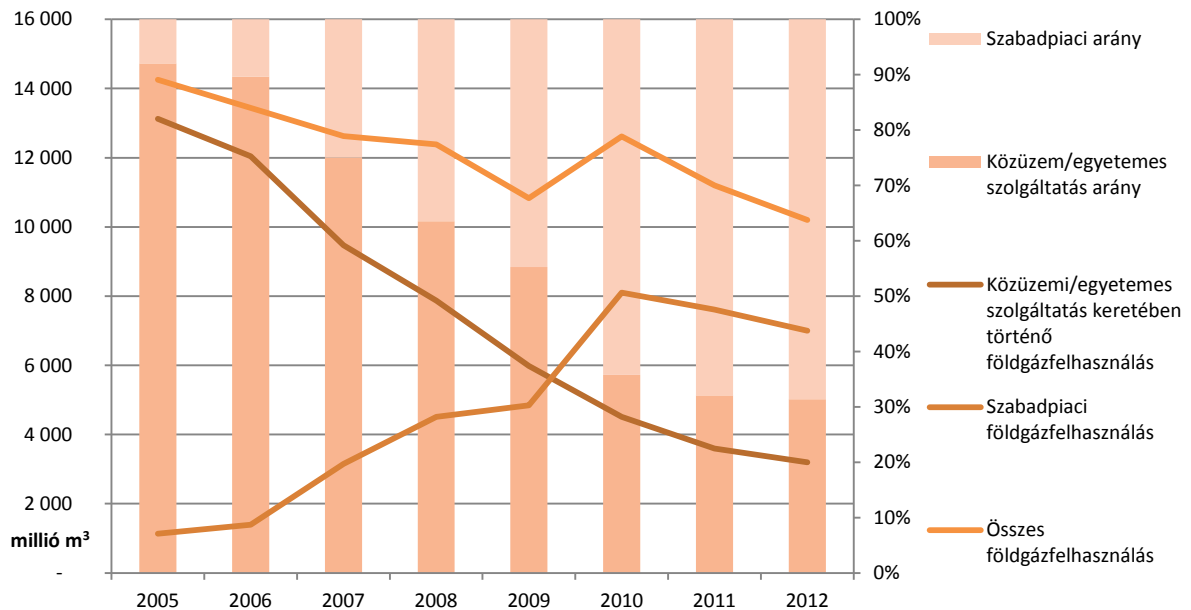
Changes in domestic natural gas consumption follow – among others – changes in GDP and weather conditions (e.g. cold winter). It can be declared that the termination of public utility segment and narrowed circle of universal service (households, small customers, public institutions) resulted in a decreased share of the regulated price segment, which has accounted for 40% of total natural gas consumption since 2008.

As data show, total domestic gas consumption has been descending for years. In 2012, gas consumption was 2.1 billion cubic meters (bcm) lower than in 2008 with total consumption of 10.8 bcm. Household customers supplied in universal service consumed 3.2 bcm gas in 2012, which is 7% less relative to 2011, while lagging behind the consumption data of 2007 by 20%.

The key reason behind this fall is the increasing gas price, which resulted in the conscious moderation of energy consumption by customers (improving energy efficiency) and decreasing industrial consumption.



**Figure 2 Changes in shares of regulated and free market segments on retail market per calendar year (2005–2012) (Free market share; regulated market share; natural gas consumption on regulated market; natural gas consumption on free market, total natural gas consumption)**



Source: MEKH

Contrary to previous years, when physical congestions were typical for the Eastern cross-border entry point, in 2012, congestion shifted to the Western entry point. This was resulted from the large volume of LNG has appeared in Western Europe since 2010 and the lowering consumption of Western European industrial sectors because of the long-running economic crisis, which led to lower natural gas spot prices compared to Russian gas. As a consequence, majority of traders intended to import natural gas on HAG pipeline. (In addition, the US became self-sufficient by 2011 due to the large volume of its non-conventional gas production, therefore exporters who intended to sell LNG to the US (Trinidad, Katar and Egypt) had to direct and sell that LNG to Western Europe, which also led to descending prices.)

FGSZ Zrt solved this problem by temporarily increasing the capacity on Western import entry point in 2011 from 12.0 mcm/day to 14.4 mcm/day in order to meet the seasonally increased natural gas demand (typically in winter) by extending the Mosonmagyaróvár compressor station. However, in summer, this capacity growth is available only in the form of interruptible capacity.

### **Cross-border capacity allocation and congestion management**

Cross-border pipeline is a transmission or distribution pipeline that crossing the border of Hungary and have natural gas metering station. Congestion (contractual and/or physical) occurs when demand for natural gas transmission exceeds technical capacity.

Capacities of cross-border entry-exit points are the following:

- Western entry point (from Austria)- Mosonmagyaróvár: 12.1 mcm/day (+2.3 mcm/day)
- Eastern entry point (from Ukraine)-Beregdaróc: 56.3 mcm/day
- Southern exit point (to Serbia)-Kiskundorozsma: 13.2 mcm/day (used only for transit)

- South Eastern bidirectional (entry-exit)<sup>5</sup> (Romania) cross-border point – Csanádpalota: 4.8 mcm/day
- South Western bidirectional<sup>6</sup> (Croatia) cross-border point – Drávaszerdahely: 19.1 mcm/day



Long-term natural gas import agreements and date of expiry:

- Panrusgas: 9000 mcm/year – until 2015
- E.ON Ruhrgas: 500 mcm/year – until 2015

The long-term transit contract concluded with Serbia expires in 2017, and contracts 12 mcm/day pipeline capacity constantly.

In order to manage physical congestion on the Western HAG pipeline, FGSZ Zrt. extended a compressor station at Western entry point, due to which it was able to satisfy a higher natural gas demand (14.4 mcm/day) in the winter period.

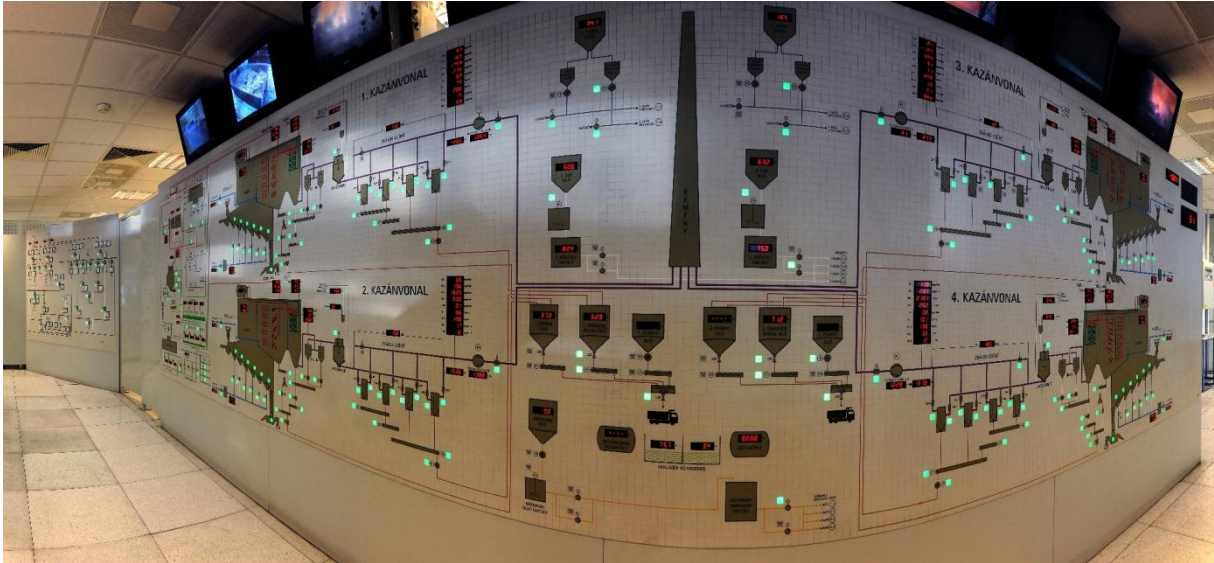
## District heating

### *Operation of district heating supply sector*

In 2012, 96 settlements were supplied with district heating by 88 district heat suppliers, which supplied customers in the possession of 102 district heating supply licenses. Apart from their own heat production, 98 outside producers participated in district heating supply. The number of flat supplied by district heating was 647 182 in 2012.

<sup>5</sup> Further development is required from Romanian side.

<sup>6</sup> Further developments are required from Croatian side.



In Hungary, the sixties witnessed mass spreading of district heating supply parallel to the construction of huge blocks of flats, when prices for the energy carrier was relatively low. Compared to individual heating solutions, district heating was an environmental-friendly solution what's more, it was even economical if industrial and household heating demands were jointly met.

However, after the change of regime, industries of large heat demand ceased to exist, the supplying district heating system became oversized, and the established infrastructure could hardly meet the requirements of the changing social-economic environment. As a consequence, the operation of the current district heating systems is not efficient in several cases. The average age of pipeline network is approximately 30 years, thus despite all the efficiency improving developments of previous years, only 86.3% of the heat fed in the district heating system effectively reaches customers (average network losses amount to 13.7%)

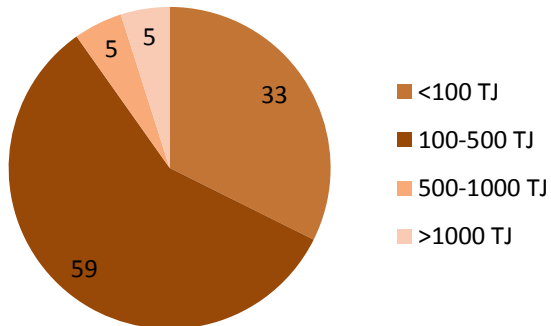
The volume of heat energy sold by district heating suppliers is 29 PJ, 73% of which is used by household customers. Households use this district heating primarily for heating (and to a smaller extent for hot water consumption).

District heating supply is a local utility service. Typically, one supplier operates on one supply area therefore suppliers cannot compete for customers. There are settlements that are supplied by several suppliers, and there are suppliers that supply on several settlements. There is a limited competition in district heating generation, which exists particularly among co-generators.

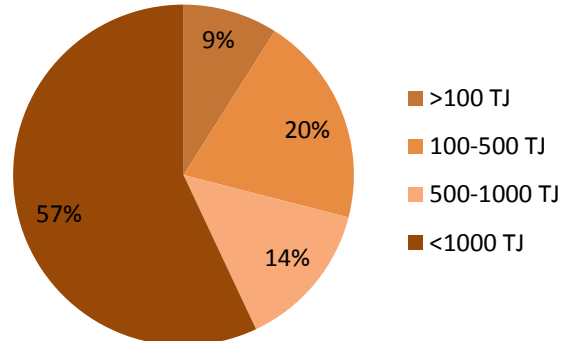
The number of district heating licences where majority shares (98%) were possessed by local governments was 58, the number of licensees in mixed ownership amounted to 11, while the number of licensees owned by other than local governments was 19.

**Figure Number of district heating suppliers and amount of heat sold in 2012**

Number of district heating supply licensees grouped according to size (pcs)



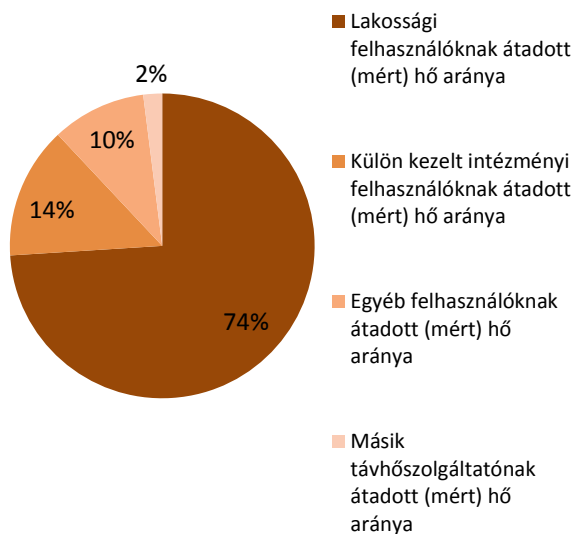
Quantity of heat sold annually based on size of district heating suppliers (%)



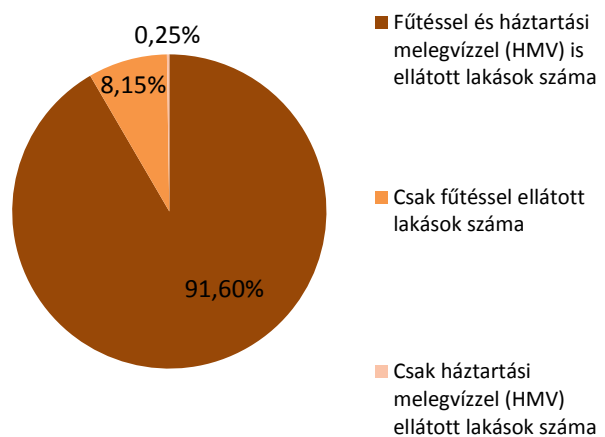
Source: MEKH

**Figure Heat volumes sold in the framework of district heating and flats according to district heating consumption in 2012**

Felhasználóknak átadott hő aránya (%)

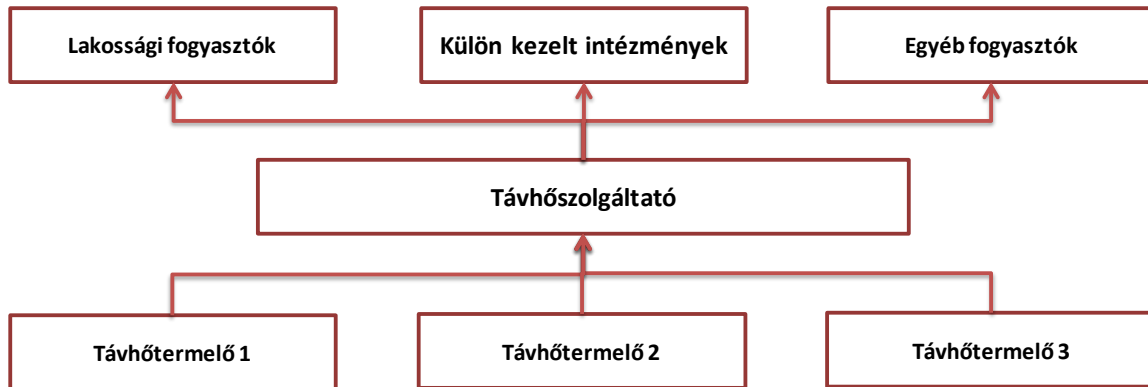


Magyar lakások távhővel való ellátottsága (%)



Actors of the sector are district heating suppliers, district heating generators (who are generally suppliers, in one) and district heating traders (who do not generate heat but buy that from generators and sell it to district heating suppliers). 22 out of all district heating suppliers do not have own heat generation (do not have license for district heating generation). They purchased 100% of district heating they sell from generators. There are 39 suppliers (possessing licenses for both district heating supply and generation), who supply exclusively their own district heating to customers without buying energy from outside sources.

**Figure 16 Structure of Hungarian district heat supply (Households; Institutes governed separately by a provision; Other customers; District heating supplier; District heating generator1; District heating generator2; District heating generator3)**



Source: MEKH

Majority of district heating suppliers are owned by local governments, however, at given settlements district heating generators (subject to electricity generation license) acquired shares in district heating suppliers. There are settlements where district heating suppliers are operated by concession agreement by private enterprises.

Suppliers purchase heat energy from district heating generators (power plants) and/or generate it by themselves in furnaces and to an increasing extent in co-generating equipment (e.g in gas engines), The supplied heat energy derived from partially co-generating power plants at more than 60 settlements. The fuel used in district heat is crucially (imported) natural gas.

## Water utility works

### **Operation of water utility supply**

In Hungary, there were 373 water utility suppliers in 2012. These conducted water utility supply activity in various forms of business associations, with various economic, financial and contractual backgrounds. This fragmented market is well described by the fact that the biggest 33 out of the total 373 suppliers supplied nearly 85% of customers. Differences in prices, pricing methodologies and price structures are resulted primarily from the fragmented market structure and the lack of uniform pricing principles.

In 2012, the number of suppliers was very high compared to the 3200 supplied settlements. In average, every supplier supplied not more than 8 to 9 settlements. In addition to this, the size of supplied territories and the number of supplied customers showed significant deviations. The consumer equivalent (CE) per water utility supplier varied between 66 and 2 176 229, so the average consumer equivalent accounted for approximately 40 000. (Excluding data of Budapest, this data accounts for 35 000 CE). The sector was characterised by mixed ownership structures in addition to state and local government owned water utility suppliers. Service charges were determined differently by water utility supplier, settlements and water utility service sectors and often taking into account various factors (one-factor/two-factor charge, diameter of connection water meter, user etc.).

Figure 17 Drinking water suppliers in Hungary \*



\*Different drinking water suppliers are indicated with different colours.

Source: MaVíz – [www.maviz.org](http://www.maviz.org)

Following the coming into force of Water Utility Supply Act on 31 December 2011, an integration process was started in 2012. Out of 370 water utility suppliers operating at the beginning of 2012 approximately 240 survived by the end of the year, and this integration process went on also in 2013.

The goal of integration is provide for a water utility supply in a determined form, based on an operational agreement defined by law, in nearly similar supply quality and with efficient and continuous operation. The integration will allow for enforcing the principle of regionality and solidarity, while it enforces the prohibition of cross-financing.

It is a fact that integration resulted in narrowing circle of water utility suppliers in 2012, and this process is expected to go further on. This reduction in number will result in positive changes in quality of supply to customers since surviving suppliers will operate along more transparent rules.

From the point of view of customers, the goal is to provide high-quality drinking water at reasonable price at high service quality standards so that obligations imposed on water utility suppliers are clearly defined. Examining the expected development of consumption prices, integration will help solidarity, which allows for the termination of the present price differences of suppliers.

Water utility suppliers are interested in owning utility assets based on an exact registry of utility assets and providing for a profitable maintenance on the long term. Those areas where the

operation efficiency is lower owing to territorial and social skills, a regionally organised supplier will be able to compensate disadvantages and bear fee and cost deviations at a corporate level.

**Table 13 Key figures of water utility sector in 2012**

Number of customers supplied by utility drinking water supply:	9.7	million persons
Number of customers supplied by utility waste water discharge supply:	7.3	million persons
Drinking water production	600	mcm
Drinking water sales	450	mcm
Billed waste water discharged	330	mcm
Length of water networks – excluding connections	70	thousand Km
Length of drainage – excluding connections	40	thousand Km
Electricity consumption for water production	350	GWh
Electricity consumption for drainage and purification	400	GWh
Income from water management activity	200	billion HUF
Full-employment in water utility sector	20	thousand persons

Source: MEKH

In accordance with Act of 2011 CXCVI on national assets (hereinafter Nvtv) national assets are assets in the exclusive ownership of state and local government. In relation with this, Water Utility Supply Act provides that the owner of water utility is exclusively the state and local government of a settlement. Water Utility Supply Act, in its transitional provisions governs the obligation of transfer of ownership right regarding water utilities owned by other than the state or local government. Having these provisions in mind, there still were water utilities and suppliers in mixed ownership on the market in 2012. The realisation of 100% state or local government ownership is completed as late as in 2013. The ownership structure of the sector in 2012 was the following:

**Table 14 Ownership structure of water utility sector in 2012**

Component of ownership	Content of component of ownership	Owner, share
Water utility	Water utility system	state, local government and private
Water utility supplier	Ownership rights of undertakings conducting water supply and waste water discharge	16% state, 74% local government, 10% private and mixed ownership
Independent water utility component	A part of water utility that can be separated from the water utility without harming its consistency (e.g. pump station, water meter, control engineering installation)	state, local government and private
Water utility investment	Establishment of new water utility and water utility constructed before commissioning	state, local government and private

Source: MEKH

In 2012, there were 5 regional (partially or completely) state-owned water utilities:

- Tiszamenti Regionális Vízművek Zrt. (Tiszamente Regional Water Works Ltd.) (100% state ownership)
- Észak-magyarországi Regionális Vízművek Zrt. (North Hungarian Regional Water Works Ltd.) (100% state ownership)
- Dunántúli Regionális Vízmű Zrt. (90% state ownership) (Transdanubian Regional Water Works Ltd.)
- Dunamenti Regionális Vízmű Zrt. (Dunamente Regional Water Works Ltd.) (90% state ownership) and

- Észak-dunántúli Vízmű Zrt. (North Transdanubian Water Works Ltd.) (92% state ownership)  
The market share of these companies in water supply accounts for around 16% (based on the data submitted by these companies)

## II. Licensing

In order to maintain and enhance security of supply, in accordance with statutory provisions, the Office issues licenses in which it determines the conditions of conducting activities subject to license and related activities, furthermore, supervises the observance of these conditions and apply sanctions if necessary.

*Table 7 License types issued by the Office*

<i>Electricity</i>	<i>Natural gas</i>	<i>District heat</i>	<i>Water utility</i>
Generation license	Storage license	License for district heat generation	License for water utility supply
Simplified license for small power plants	License for transport	License for district heat supply	
License for transmission system operation	License for transmission system operation		
Distribution license	Distribution licence		
Trading license	Trading licence		
License for universal service	License for universal service		
License for organised electricity market	License for piped LPG supply		
Private line license	License for organised natural gas market		
License for public lighting operation <sup>7</sup>			

### Electricity

In 2012, the Office issued 207 resolutions regarding electricity enterprises.

*Table 8 Licenses regarding electricity sector activities in 2012*

	Number of licensees with active license* at the beginning of the year	New licenses* issued in 2012	Number of licenses withdrawn and cancelled in 2012	Licenses for suspension	Number of licensees with active license* at the end of the year
<b>Small power plants</b>	<b>447</b>	<b>23</b>	<b>10</b>	-	<b>460</b>
natural gas	243	3	7	-	239
wind	52	1	2	-	51
biomass	19	-	1	-	18
biogas**	81	16	-	-	97
waste	10	1	-	-	11
hydro	41	-	-	-	41
solar	1	2	-	-	3
power plants beyond 50 MW (power generation companies)	15	-	-	1	15
Transmission system operator***	1	1	-	-	1
Distribution licensee	6	-	-	-	6
Universal service provider	4	-	-	-	4
Electricity trader	90	2	5	-	87
Restricted electricity trade	42	11	1	-	52
Simplified electricity trade	3	-	-	-	3
Private line licensee	3	-	-	-	3

<sup>7</sup> Such license may be issued exclusively from 2013.



<b>Organised electricity market</b>	<b>2</b>	<b>-</b>	<b>1</b>	<b>-</b>	<b>1</b>
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\*For small power plants, licenses mean also quota decisions permitting sales in FIO scheme.  
 \*\*Power plants utilizing biogas include power plants utilizing biogas of plant or animal origin, wastewater gas and gas from waste dumps.  
 \*\*\*The undertaking conducting transmission system operation (MAVIR Zrt.) was granted a new license for transmission system operation, thus there is only one single licensee for this activity in Hungary.

**Licensing of generators**

8 licenses were issued for power plants of nominal capacity of 50 MW or above. One of these was a license on continued operation following a mothball (AES Tisza Erőmű Kft.), one was on approval of acquisition (Tisza Power Kft.) and the remaining ones were on the modification of operational licenses. In 2012, 15 new simplified licenses were issued for small power plants and 8 resolutions on setting FIO quotes. No tender was called for on establishment of new wind power plant capacities but one new license was issued for a wind power plant.

**Licensing of transmission system operator**

In 2012, Mavir Zrt. was granted an operational license for transmission system operation.

In accordance with the third energy package, the transmission system operator shall prove its compliance with unbundling rules with a relevant certificate. MAVIR Zrt. submitted its request on this certificate to the Office, who after asking for the opinion of the European Commission, evaluated the request. The Office certified in a resolution that the activities of MAVIR Zrt. comply with the sectoral rules and regulations as well as with the rules of unbundling.



In addition to its former procedure, the Office approved MAVIR Zrt.’s Compliance Program, Business Conduct Rules and Internal Recruitment Rules. In 2012, the Office modified MAVIR Zrt.’s Commercial Code upon its request five times, which was required among others by the Czech-Slovakian-Hungarian market coupling and modifications in allocation procedures applied at intersections.

**Licensing of distributors**

In 2012, there were six distribution system operators (DSO) in Hungary. In 2012, there was not any new license for electricity distribution issued by the Office. The license of E.ON Dél-dunántúli Áramszolgáltató Zrt. was modified. The reason behind was that the DSO intended to use network assets owned by a third party for conducting its distribution activity. In the course of its procedure, the Office conducted a site-inspection on the licensee's residence in Pécs.

### ***Licenses for private lines***

In 2012, there were three private line licensees in Hungary; no further license for private lines was issued.

### ***Licensing of traders***

At the beginning of 2012, there were 90 complete, 42 restricted and 3 simplified license holders in electricity trading. In the course of the year, the Office issued 2 licenses for supplying final customers and 11 restricted electricity trading licenses, and withdrew five out of the former license type and one from the latter one. The assumable reason behind the requests for withdrawal was that foreign owners might have acquired restricted electricity trading license in the meantime, which was sufficient to pursue their previous, exclusively wholesale activity.

### ***Licensing of universal service providers***

In 2012, there were four universal service providers in Hungary, and no further application for universal service license was received by the Office during the year.

### ***Licensing of organised electricity market***

Upon the licensee's request, the Office withdrew operational license for organised electricity market issued earlier to the Power Exchange Central Europe a.s Hungarian Subsidiary residing in Prague in 2012.

## **Natural gas**

With regard to natural gas market players, the Office issued 158 resolutions and 28 decisions in 2012. In the course of the year, one license was issued for transmission system operation and 4 for natural gas trade. The Office – upon the requests of licensed companies – withdrew 2 natural gas trading licenses and issued 30 resolutions on financial warranty.

***Table 9 Natural gas licenses in 2012***

	Number of licensees with active license at the beginning of the year	New licenses issued in 2012	Number of licenses withdrawn and cancelled in 2012	Licenses for suspension	Number of licensees with active license at the end of the year
Natural gas storage	2	-	-	-	2
Transporter*	2	-	-	-	1
TSO / ITO*	1	1	-	-	1
Distributor	11	-	-	-	11
Trader	42	4	2	-	44
Universal service provider	7	-	-	-	7
Piped LPG supplier	2	-	-	-	2
Organied natural gas market	1	-	-	-	1

\* Earlier, FGSZ Zrt. had licenses for both system operation and transport. In 2012, it was granted a license that relates to both transport and system operation.

### ***Licensing of transporters and transmission system operator***

FGSZ Zrt. holds a license for transmission system operation issued by the Office. Considering the fact that FGSZ Zrt is the only transmission system operator, it is also responsible for the operation of the interoperating natural gas system. In 2012, FGSZ Zrt. submitted two requests on the amendment to the Network and Trading Code (hereinafter NTC). In approving the NTC, the Office took into account the requirements of security of supply, quality, fair competition and free access to interoperating natural gas system as well as the principle of effective competition and principles and rules included in price regulation in addition to the compliance with statutory provisions.

Beside FGSZ Zrt., Magyar Gáz Tranzit Zrt. (Hungarian Gas Transit Ltd., hereinafter MGT Zrt.) holds a license for gas transport. The key task of the enterprise will be to construct, then operate the new Slovakian-Hungarian interconnection pipeline. In 2012, MGT Zrt. did not conduct any natural gas transporting activities.

### ***Licensing of distributors***

Natural gas systems are operated by 10 regional distribution network companies. Five big ones out of these 10 conduct the overwhelming part of regional distribution activity. In 2012, no new license was issued for natural gas distribution.

### ***Licensing of traders***

At the beginning of 2012, there were 42 natural gas licensees in Hungary. In the course of the year, 4 new licenses were issued for natural gas trade and 2 ones were withdrawn.

### ***Licensing of universal service providers***

In 2012, there were 7 universal service providers in Hungary. No new license was issued for universal service.

### ***Licensing of piped LPG suppliers***

In 2012, two piped LPG suppliers had operational license in Hungary, and there was no new applicant for license.

### ***Licensing of organised natural gas market***

In Hungary, the CEEGEX Central Eastern European Organised Natural Gas Market holds an operational license for organised natural gas market. The Office approved the joint code (Business and Organised Natural Gas Market Code) of CEEGEX Zrt in 2012 in order to provide for the compliance with the conditions included in the license, which allowed organised natural gas market to be launched on 1 January 2013.

## **District heating**

The Office issued 211 resolutions in 2012 to the actors of district heating sector including 173 new licenses.

**Table 9 District heat licenses in 2012**

	Number of licensees with active license at the beginning of the year	New licenses issued in 2012	Number of licenses withdrawn and cancelled in 2012	Licenses for suspension	Number of licensees with active license at the end of the year
District heat supplier	4	99	4	-	99
Operational license for district heat generation	68	72	6	-	134
Establishment license for district heat generation (heat generation in furnace)	-	2	-	-	2

### ***Licensing of district heating generators and suppliers***

In 2012, 72 licenses were issued for district heat generation (essentially heat generation in furnaces) and 99 for district heating supply. The difference between the two figures is resulted on the one hand from the fact that given heat and power generators had holden license for heat and power generation, and on the other hand, there are suppliers who do not have furnaces and thus they do not generate heat, just sell exclusively heat purchased from other generators. In 2012, 4 licenses for supply and 4 ones for generation were withdrawn, 6 generation licenses were modified and 2 establishment licenses for furnaces were issued.

### **Water utility works**

In accordance with the provisions of Water Utility Supply Act, a new organisational unit responsible for the supervision and regulation of water utility sector was established at the Office, which started its authority activity in accordance with the new regulations.

Water Utility Supply Act places licensing activity regarding licenses for water utility supply into the competence of the Office, thus in the future, water utility supply will be subject to operational license issued by the Office. This means that all the suppliers will have to apply to the Office for a license, who, in the licensing procedure, controls the compliance with conditions included in Water Utility Supply Act, among others technical capability of suppliers and financial and environmental sustainability of the operation thereof.

The primary task of the Office until 31 May 2013 – which was the deadline for submitting applications for operational licenses – was to establish the practice of licensing procedure and along this practice to issue operational licenses to applicants who complied with all the legal conditions. After issuing licenses, the Office has to provide for the control of compliance with license and motivate suppliers to continuously increase efficiency.



## III. Supervision and Regulation

### Supervision

#### Electricity

##### *Security of supply*

In our modern world, electricity supply is taken for a basic need available for everybody. Electricity – due to its special nature – cannot be stored in large volume in a conventional way, and requires the constant balance of production and consumption. The maintenance of this balance requires careful planning, monitoring and intervention if necessary, which are determined by production and transmission equipment and devices, system operation and the human factor responsible for operation on the one hand, and by the supervisory activity provided by the state, on the other hand.

The Office evaluates preparation for winter being a crucial period from the aspect of security of supply, taking into account the annual scheduled maintenances, developments, fuel stocks required for winter months as specified in rules and regulations, electric capacity, electricity balance, reserve capacities as well as the availability of cross-border capacities.



In its evaluation, the Office found that power plants completed the winter preparation program for 2012, completed their annual maintenance program until 15 October 2012, and contracted their required fuel demand.

Power plants subject to fuel stockpiling complied with the relevant requirements in 2012. It is a reassuring fact from the point of view of security of supply that in dominant part of 2012, the capacity reserve of the Hungarian power system was higher than required by ENTSO-E (1350 MW). Based on the preliminary maintenance plans of power plants, the same applies to the winter period from the beginning of October 2012 to the end of April 2013.

When scheduling maintenance, power plants had to take it into account that peak capacity demands in the summer period approach winter peaks – due to the extended use of air conditioners (the capacity demand in July 2012 was 6288 MW, while the annual peak in December 2012 amounted to 6463 MW).

The winter of 2012–2013 did not witness any restriction in the consumption of gas-fired power plants. Although there were measures taken in order to avoid coal freezing, it may still occur if there is a significant drop in temperature, which may reduce the production of Mátra Power Plant. Such cases would require the involvement of other reserves, however there was no coal freezing in the winter of 2012–2013.

The most important factors influencing the security of winter energy supply seem to be the responsible behaviour of market players, the continuous availability of natural gas supply and to a smaller extent the availability of alternative fuels (biomass). That is why the flexible and harmonised collaboration of natural gas and electricity markets is of outmost importance.

In its scope of supervisory competence, the Office regularly prepared evaluations on the operational security of electricity transmission for more than a decade until May-June each year.

**The evaluation of the year 2011 also including comparative data dating back to 2007 showed a very favourable improving tendency.**

The following developments and changes were in process or planned in 2012:

<b>AES Borsodi Energetikai Kft. (AES Borsod Energy Ltd.)</b>	Borsodi Hőerőmű (Borsod Heat Power Plant) and Tiszapalkonyai Hőerőmű (Tiszapalkonya Heat Power Plant) had a license for suspension of electricity production in 2012. The company is under liquidation procedure.
<b>AES Tisza Erőmű Kft. (AES Tisza Power Plant Ltd.)</b>	The Office approved the acquisition of interests of AES-Tisza Erőmű Kft. by Tisza Power Kft.
<b>Dunamenti Erőmű Zrt. (Dunamente Power Plant Ltd.)</b>	In the generation license of the power plant, the lifetime of F blocks (5 pcs) ended by 31 December 2012. The power plant applied for the extension of the lifetime of one F block (215 MW). The procedure continued in 2013.
<b>Budapesti Erőmű Zrt. – Kelenföldi Erőmű (Budapest Power Plant Ltd. – Kelenföld Power Plant)</b>	Furnace of GT-2 gas engine unit of the power plant was replaced and the control system was renewed, which resulted in growing availability of the machinery unit, and decreasing nitrogen-oxide and carbon-monoxide emission. The complete district heating assembly of the heat recovery steam generators was replaced, which resulted in improving security of operation.
<b>Budapesti Erőmű Zrt. – Újpesti Erőmű (Budapest Power Plant Ltd – Újpest Power Plant)</b>	The preparation of hot water circulating pump system for back-up power supply was completed in order to provide for the safe supply of the united Újpest–Révész heat district.
<b>MVM BVMT Zrt. (MVM BVMT Ltd.)</b>	The company intends to enter tertiary market in 2012 therefore it accomplished all the required modifications and transformations. In the course of this, it automated its fuel oil system required for the secure start in cold winters and the control system of the engine was modified accordingly.
<b>MVM Paksi Atomerőmű Zrt. (MVM Paks Nuclear Power Plant Ltd.)</b>	Upon the request of the European Commission, the Stress Test was completed. The final report found that the power plant has sufficient protection against earthquakes and neither floods from the nearby Danube River nor the low water level jeopardizes the site and operation of the power plant. The facility withstands extreme weather conditions under inspection, and there are sufficient reserves available in the case of outage of electricity supply or cooling water supply for cooling reactors. The Országos Atomenergia Hivatal (Hungarian Atomic Energy Authority) issued a license to the first block of Paks Nuclear Power Plant – which started its operation on 14 December 1982 – on the extension of lifespan.
<b>Pannon Hőerőmű Zrt.</b>	The power plant installed new speed driver frequency converter due to the

**(Pannon Heat Power Plant Ltd.)**

frequent failures of the frequency converter of 2-4 FK 2 circulating pump in order to provide for smooth district heat supply.

### **Network development**

With regard to network development, it is the responsibility of the transmission system operator and distribution licensees to provide for the long-term, and secure availability of transmission and distribution networks by developing, renovating, maintaining and operating the transmission and distribution networks constituting a part of the Hungarian electricity system in accordance with domestic and international requirements, and so to ensure the maintenance of a European level security of domestic electricity supply.

In 2012, the following investments were made in order to develop transmission network:

- Transmission lines of 220 kV of Oroszlány–Dunamenti Erőmű and Oroszlány–Győr between Győr and Martonvásár was transformed into a dual system 400 kV power line, one system of which is operating on at 220 kV;
- Disconnection of Gönyű 400 kV connection station from Győr–Litér 400 kV power line and connection into the split-up of Győr–Bicske-Dél 400 kV power line.

Distributors realised the following investments in 2012:

#### **E.ON Észak-dunántúli Áramhálózati Zrt. (E.ON North-Transdanubian Power Network Ltd.):**

- Power line sorting in Inota district,
- Reconstruction of Győr Vagongyár station and establishment of Győr Kelet T2–Győr Vagongyár power line,
- Reconstruction of line of 120kV of Kímle–Mosonmagyaróvár, and increasing the transmission capacity thereof.

#### **E.ON Dél-dunántúli Áramhálózati Zrt. (E.ON South-Transdanubian Power Network Ltd.):**

- Establishment of Dunaföldvár 120/20 kV substation,
- Splitting of Paks–Dunaújváros Oxigéngyár II. power line and connection to Dunaföldvár substation,
- Termination of Pécs Újmecekalja T-point (Establishment of new 120 kV line between Pécs Újmecekalja T-point–Pécs Újmecekalja substations).

#### **E.ON Tiszántúli Áramhálózati Zrt. (E.ON Tiszántúl Power Network Ltd.):**

- Establishment of Tiszalök–Ibrány 120 kV power line,
- Establishment of Nyírbogdány 120/20 kV substation,
- **Splitting of Kisvárdá MAVIR–Nyíregyháza Kelet 120 kV power line and connection to Nyírbogdány.**

#### **EDF DÉMÁSZ Hálózati Elosztó Kft.(EDF DÉMÁSZ Network Distributor Ltd):**

- Splitting of Kiskunhalas MÁV–Kiskundorozsma 120 kV power line and connection to Zsana 120 kV substation,
- Establishment of Mórahalom 120/20 kV line,
- Splitting of Zsana–Kiskundorozsma 120 kV line and connection to Mórahalom substation,
- New 120 kV substation of Kecskeméti Autógyár (Mercedes), splitting of a system of Kecskemét (Városföld)–Lajosmizse and connection to Kecskeméti Autógyár (Mercedes) substation.

#### **ELMŰ Hálózati Kft. (ELMŰ Network Ltd.):**

- Establishment of Csarnok tér–Laczkovich utca 120 kV cable.

#### **ÉMÁSZ Hálózati Kft.(ÉMÁSZ Network Ltd.):**

- Standardization of Lőrinci–Nagykátá line,
- line sorting due to BorsodChem GA2,
- Standardization of BorsodChem S2 (BVK)–Felsőzsolca line.

### **Unbundling of activities**

In the supply chain of electricity, distribution and transmission network activities are natural monopolies, since the operation of one single distribution network company in a region or one single transmission network operator in a country is the most economical way of operation.



### *Unbundling rules of electricity industrial activities in Hungary*

In order to provide for the non-discriminatory access to network and avoid cross-financing among activities conducted under regulated and free market conditions, the Office controls the compliance with the unbundling rules included in statutory provisions. In Hungary, obligatory provisions on unbundling of natural monopol activities (transmission system operation, distribution) from other, competing activities of the electricity sector (production, trade, universal service) are included in Electricity Act and enforcement decree to Electricity Act.

In 2006, the system operator was integrated into MVM Zrt., which was owned by the state and conducted also production and trading activities via its subsidiaries, thus Hungary switched from the previous Independent System Operator (ISO) model to a vertically an Independent Transmission Operator (ITO) model, where ITO operates as an independent subsidiary within a vertically integrated company. In the course of the transaction, transmission network was transferred to the system operator. MVM Zrt. established a corporate structure where the holding company coordinating subsidiaries does not conduct any activities subject to license regarding electricity sector.

In 2012, MAVIR Zrt. conducted its licensed activity as a single transmission operator in Hungary under the egis of MVM Zrt. but as an independent subsidiary.

In order to implement the provisions included in the Third Energy Package, contracts on outsourced activities ceased by the beginning of 2012. Since 1 January 2012, financial, accounting and tax services conducted earlier by MVM Kontó Zrt. has been transferred to MAVIR Zrt. Again since the beginning of 2012, IT services conducted earlier by MVM Informatikai Kft. has been made by Synergon Rendszerintegrátor Kft. who is independent from MVM Group. MAVIR Zrt. contracts an auditor different from the auditor contracted by MVM Group. The Office has paid and will pay an enhanced attention to the provision of services within the group.

### ***Practical experience of compliance with unbundling rules***

#### *Independent Transmission Operator*

The Independent Transmission Operator completed the steps required to comply with the new unbundling rules included in the Third Energy Package in 2012. In the course of the year, the verification process was successfully closed. As a result, the operational license for ITO was issued and the Compliance Program, the Business Conduct Rules and the Internal Recruitment Code were approved.

#### *Distribution network operators*

The six distribution licensees have been operating since 1 January 2008 – in accordance with the legal unbundling provisions of the EU Directive 2003/54/EK – as a part of vertically integrated electricity companies according to the rules of full legal unbundling. The Hungarian electricity regulation does not use the exemption rules regarding 100 thousand customers, since each distributor has more than 100 thousand connected customers for the time being. Network assets are owned by network companies.

## **Natural gas**

### ***Security of supply***

Natural gas is one of the key components of the Hungarian energy supply. Security of natural gas supply means the supply of natural gas at a reasonable price according to needs. The Office is responsible for monitoring the security of natural gas supply, controlling sufficiency of natural gas sources and taking measures if any of these are insufficient.

In order to provide for the security of natural gas supply, the Office continuously controls the Hungarian natural gas market, the activity of the given market players and makes a weekly forecast in heating periods on the non-scheduled outages of natural gas transports from the Ukrainian border and also on the events of extraordinary weather conditions. This forecast enables the government to apply the most appropriate intervention in time if needed in order to provide for the smooth operation of domestic natural gas supply.

**Table 11 Maximum technical capacity of domestic natural gas system (mcm/day)**

<b>Domestic production</b>	<b>10.5</b>
<b>Import HAG (Western direction)</b>	<b>14.4</b>
<b>Import Beregszász (Eastern direction)</b>	<b>56.3</b>
<b>Import Csanádpalota (South-Eastern direction)</b>	<b>4.8</b>
<b>Import Drávaszerdahely (South-Western direction)</b>	<b>19.1</b>
<b>Commercial gas storages</b>	<b>60.1</b>
<b>Strategical gas storage</b>	<b>20.0</b>
<b>TOTAL</b>	<b>185.2</b>

Source: MEKH

The national record in natural gas consumption amounted to 89.5 mcm/day (on 9 February 2005). **The data above show that recently the capacity of the domestic natural gas system is more than double of that, consequently, the technical background of security of supply is guaranteed.**



Article 4 of Directive 994/2010/EU obliges Member States to identify factors jeopardizing security of supply and to elaborate a Risk Assessment, then on the basis of that a Prevention Action Plan in order to decrease supply security risks, and an Emergency Plan in order to handle possible crisis situations.

Involving an outside expert, the Office prepared and submitted the Prevention Action Plan and Emergency Plan in agreement with neighbouring countries until the given deadline – 3 December 2012.

### **Strategic natural gas storage**

The NFM Decree 13/2011. (IV. 7.) and the amendment thereof in 2012 – in order to provide for the smooth operation of security of supply and universal service for households – temporarily decreased the working gas stockpile of the strategic natural gas storage from 1 200 mcm to 815 million m<sup>3</sup>. In accordance with the decree, MSZKSZ sold the so released 385 mcm natural gas to two universal service providers improving the security of household natural gas supply. As the decree provides, released inventories have to be reinjected up to 30 June 2014. **In 2012, there was no need to consume from the strategic storage.**

### **Commercial natural gas storage**

In 2012, four out of the total five Hungarian commercial gas storage were operated by E.ON Földgáz Storage Zrt. MMBF Zrt. applied for and received a license for commercial natural gas storage, in accordance with which it may store further 700 mcm working gas in Szőreg-I storage in addition to above mentioned strategic storage of 20 mcm/day withdrawal capacity. In line with the license, it has 5 mcm/day withdrawal capacity for commercial purposes. Accordingly, the fifth commercial gas storage operates in Szőreg-I site.

**Table 11 Storage capacities of Hungarian commercial gas storages**

<b>Name of underground gas storage</b>	<b>Storable working gas inventory (mcm)</b>	<b>Withdrawal capacity (mcm/day)</b>
Hajdúszoboszló	1440	<b>20.8</b>
Kardoskút	280	<b>3.2</b>
Pusztadrics	340	<b>3.1</b>
Zsana	2170	<b>28.0</b>
Szőreg	700	<b>5.0</b>
<b>Total</b>	<b>4930</b>	<b>60.1</b>

Source: MEKH

From the viewpoint of security of supply, it is an important and reassuring fact that the system is able to meet two thirds of daily peak demands from commercial storages.

### **Gas restriction order**

In September each year, the Office determines the restriction order for the case of supply disturbances, which allows for continuous supply for given circles of customers when lacking sources by restricting other customers. The Office puts to the primarily restrictable category all natural gas fired power plants with alternative fuelling options subject to the legal obligation requiring stockpiling of liquid fuel ensuring 16 day continuous operation. Should the restriction of this category be insufficient, further customers may be restricted according to the restriction order.

**In 2012, there were not any gas restrictions.**

### **Natural gas transport**

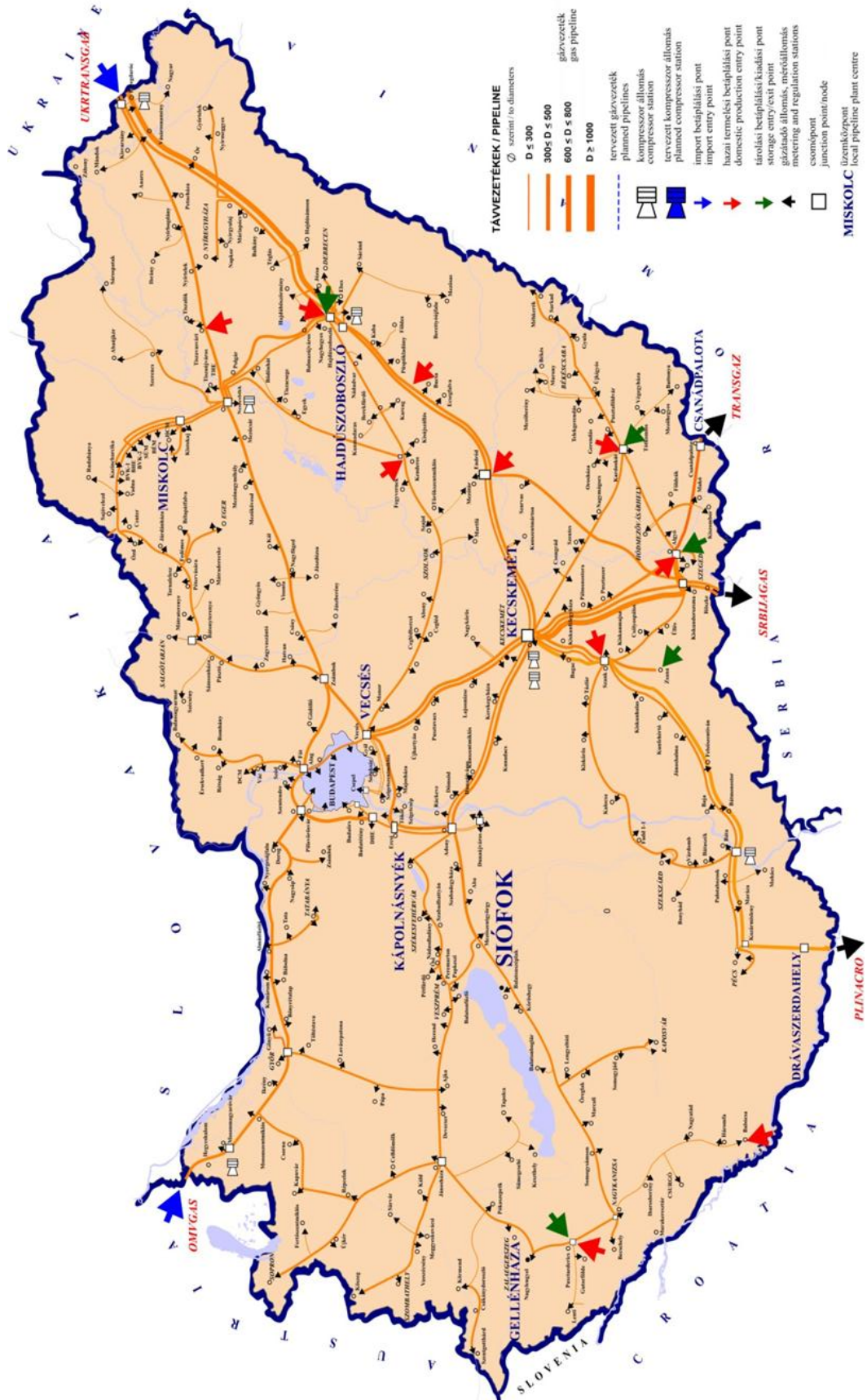
The Office approved the ten-year system development plan submitted and reviewed several times by the system operation licensee in its resolution issued on 9 May 2012.

As the result of transmission pipeline developments in 2010 of FGSZ Földgázszállító Zrt. the diversification possibilities of import grew, which also results in improving security of supply. Pipelines toward Romania and Croatia not only enables gas trade to the neighbouring countries but also are a part of North South Gas Corridor handled by the European Commission as a high priority project since 2011. The new North Slovakian-Hungarian interconnection pipeline will be a part of the same gas corridor, the construction works of which has begun. The capacity on the Slovakian-Hungarian interconnection pipeline will be 14.4 mcm/day.

The Austrian-Hungarian HAG-pipeline was constructed so that it is suitable for bidirectional transport similarly to the Croatian-Hungarian interconnection pipeline. The development that is required to make the Romanian-Hungarian interconnector capable for bidirectional transport (construction of compressor station) is made by the Romanian transport system operator Transgas in 2013.

The Slovakian-Hungarian interconnection pipeline currently under construction will be capable for bidirectional transport.

Figure 18 Hungarian natural gas transport system



Source: FGSZ Ltd.

### ***Unbundling activities***

In accordance with Gas Act, accounting unbundling is obligatory for all natural gas undertaking, no exemption may be granted. If natural gas transport, distribution and storage are conducted by a vertically integrated natural gas undertaking, the activities subject to license have to be conducted in an organisation that is legally unbundled from other, directly not related activities, and independent from the point of view of organisation and decision making, except:

- a) natural gas traders supplying less than 100 000 customers,
- b) piped LPG suppliers.

In the virtue of Article 6 of GET Vhr, transport activity is to be conducted in a separated organisational unit and by ensuring an independent decision making process. The senior management of system operation is not allowed to participate in other natural gas activities (subject to license) either directly or indirectly. With regard to information flow, the system operator has to similarly conduct their natural gas activities in relation with the circle of owners to other actors of the market.

FGSZ Földgázszállító Zrt. is a legally unbundled company of MOL Nyrt. FGSZ Zrt. has been physically unbundled (residence, office building) from all the other business associations conducting natural gas activity. The verification procedure on FGSZ Ltd. has been completed in compliance with the unbundling rules of the EU.

MGT Zrt. is a legally unbundled company of MVM Zrt. MGT Zrt. has to go through a verification procedure in accordance with the unbundling rules of the EU in order to be allowed to start its operation.

There are five large regional undertakings supplying more than 100 000 customers out of the ten natural gas distribution licensees operating in Hungary. The five large undertakings completed legal unbundling as early as 2007, and conduct natural gas distribution and trade activities in separate companies. Nine out of the former public utility supply licensees applied to the Office for and received license for universal service, in addition to this, the most of them have a license for free market trade of natural gas, which are operated according to the rules of accounting unbundling.

The vertically integrated enterprise of E.ON Ruhrgas International GmbH, the former public utility wholesale licensee, E.ON Földgáz Trade Zrt. is legally unbundled from the gas storage licensee, E.ON Földgáz Storage Zrt. Natural gas distributors, E.ON KÖGÁZ Zrt. and E.ON DDGÁZ Zrt. are legally unbundled, as well.

## **District heating**

### ***Security of supply***

The territorially competent local government and the municipality in Budapest are responsible for providing for the district heating supply of facilities supplied by district heating through the licensee or licensees.

In those cases where the supplier buys a proportion of heat energy from a heat power plant and the power plant is in private hands or indirectly in state ownership, the debates between the supplier and the generator may jeopardize supply. In these debates, the Office may have a mediating role. Last years saw local governments making steps towards an outcome when district heat is supplied by the local government's own business association or supplier.

## Water utility

### ***Security of supply***

In the interest of secure water utility supply, the Office keep track on the position of the Hungarian water utility, with special focus on the activity of given water utility suppliers and local governments. Should security of supply be threatened from any reasons, the Office, in the interest of public interest for supply, will take the necessary measures without delay, in ultimate case, it designates an operator of last resort for the given water utility system.



In 2012, the Office received 5 requests by local governments for designating an operator of last resort. In most of cases, however, the two joint conditions included in Water Utility Supply Act that would allow for designating an operator of last resort failed to co-exist.

In the previous years, the security of water supply was not jeopardized.

## Regulation

### ***Preparation for introduction of smart metering***

The Electricity Act and the Gas Act provide that the government has to issue a decree on the rules of the implementation of pilot projects on the introduction of smart metering, and delegate the tasks of supervision of these pilot projects to the Office.

Upon the request of NFM, in 2012, the Office drafted a decree on smart metering in electricity pilot projects – involving the smart metering working group coordinated by the Office – the final drafting of which is recently made by NFM. Parallel to this procedure, smaller or bigger smart metering pilot projects are in the pipeline or under preparation even for the time being. For instance, the

transmission system operator, MAVIR Zrt. intends to launch a pilot project affecting several sectors in 2013.

Besides, the Office upon the request of NFM had a preliminary study prepared in July 2012 on an economic evaluation, which shows that the introduction of smart metering on a given metering place will be economical only if the electricity or natural gas consumption exceeds a given volume.

The work in progress in the CEE Region since years aimed at the adoption of a coordinated flow based allocation system (FBA) was continued in 2012.

### ***Regulation of obligatory feed-in scheme***

In order to moderate the costs for customers, the Office made a proposal in 2012 to NFM on the amendment to Article 13 of Electricity Act and GKM Decree 109/2007 (XII.23) on the allocation of FIO costs<sup>8</sup>. The point of the proposal was to make it possible that the electricity sold by generators in the framework of feed-in obligation could be partially sold further on the organised power market (HUPX). As a result, a constant part of the volume of electricity under FIO is allocated to those who take over FIO power (balance circle managers) a month ahead in the proportion of their consumption, while the varying part is sold on the spot market of HUPX. Consequently, the volume sold further by MAVIR Zrt. may much closer approach the volume effectively generated by FIO producers, which is expected to result in a significant reduction of yearly more billion HUF in the cost of balancing energy of FIO balance circle. MAVIR Zrt. would allocate the financial gap of the income from exchange sales and the costs of feed-in obligation to those who take over FIO power. The proposal will finally come into force – with some modification – from 1 January 2014 (See Article 13 of Electricity Act and Decree 63/2013. (X. 29) NFM).

### ***Establishment of legislative environment regarding social utility services***

The Office had negotiations with NFM and KIM on the proposal No. NFM/17191/2012 on the review of legislative environment regarding social utility services, then hold discussions on the draft Act T/10094 on the amendment of given acts on energy in the interest of establishment of social utility service. Discussions and proposals affected the following, in particular: consumer protection, contents of bill, network issues, replacement of air cables with earth cables, amendment of law on disconnection of condominium.

### ***Enhancing consumption of renewable energy for transportation purposes***

The VTFO made a review on the proposal of the amendment of Act LXXXVI of 2007 on electricity and Act CXVII of 2010 on enhancing consumption of renewable energy for transportation purposes and reduction of greenhouse gas emission used in transportation. The Office gave opinion on the proposal made by NGM to the government on the amendment of given governmental decrees of technical subject, the goal of which was to introduce more efficient procedural rules in licensing procedures, and harmonise the regulation of licensing procedures of electricity facilities with the provisions of Electricity Act effective from 1 October 2011 and the amendments of Act CXL of 2004 on the general rules of the authority procedure and service of public administration that came into effect on 1 February 2012.

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<sup>8</sup> „On the allocation of electricity falling under FIO by transmission system operator and the method of pricing applied in the course of allocation.”



### ***Protection of social, child welfare, health care or public education institutes in heating period***

On the proposal of the Office, the district heating act has been amended, which serves the protection of social, child welfare, health care or public education institutes in charge of state or local government responsibilities by the prohibition of termination of their public utility contracts in heating period if they have delay in payment.

### ***Amendment of Gas Act for the protection of district heating suppliers***

The Office initiated the amendment of Gas Act for the protection of district heating suppliers, which resulted in the provision that a natural gas trader may initiate the disconnection of district heating suppliers due to delayed payment only in the case of delay exceeding 90 days and under other conditions.

### ***Fairer cost settlement for condominium***

The Office participated in the preparation of the amendment of the enforcement decree of district heating act in order to promote the possible fastest introduction of rules on fairer settlement if cost sharing is applied at condominiums.

### ***Assistance in the preparation of District Heating Development Action Plan***

The Office has a regular cooperation with NFM also in the preparation of District Heating Development Action Plan founding the development of the district heating sector and of responses to give to pilot requests from the European Union.

### ***Methodology of electricity supply risk and vulnerability assessment***

Last years witnessed a significant growth in the number of power failures due to extraordinary weather conditions. In order to reduce these, the Office using international – particularly Swedish – experience and collaborating with electricity distribution licensees and consumer protection organisations and MAVIR Zrt. since June 2011 elaborated several versions of the recommendation 'Methodology of risk and vulnerability assessment of electricity supply'. As a result of professional discussions, the final version of the recommendation was prepared and disclosed on the homepage of the Office in February 2012.

### ***Supplement to programming remote consumption meters***

Remote meters are capable of metering several parameters featuring quality of electricity supply in addition to metering energy consumption. In order to use these functions, the Office elaborated a recommendation 'Supplement of programming remote consumption meters', which was finalised in May 2012 following several meetings and discussions with electricity distribution licensees, consumer protection organisations and MAVIR Zrt.

### ***Supplement to programming of remote consumption meters***

The Office assisted NFM in elaborating sectoral and codification issues of enforcement decrees of Water Utility Supply Act. In the course of this, the Office collaborated in shaping Government Decree 58/2013 (II. 27) on the enforcement of certain provisions of Water Utility Supply Act, the preparatory tasks of which started in as early as 2012 – considering the significant influence of the decree on the sector.

## IV. Support Schemes

### Stranded costs

On 9 November 2005, the European Commission (hereinafter Commission) started an investigation based on Section (2) of Article 88 of EC Treaty in relation to the Hungarian long term electric power generation and capacity booking agreements (hereinafter LTA) to determine whether these constitute prohibited state aid. On 4 June 2008, the Commission adopted a decision, ordering the cancellation of all LTAs and ordering the repayment of prohibited state aid by the power plants concerned.

In 2008, the Parliament adopted Act LXX of 2008 on certain issues related to electricity (hereinafter LTA Act), which provided the termination of all long term PPAs until 31 December 2008 in terms of the methods of determination and reimbursement of the state aids.

In line with the LTA Act, Government Decree 149/2010. (IV.29.) (hereinafter LTA Decree) defined the methodology for calculating the actual amounts of prohibited state aids that needed to be reimbursed, and the stranded costs compensation scheme due to the termination of the LTAs.

The methodology for calculating compensation amounts for stranded costs in accordance with the provisions of the LTA Decree and the relevant figures were approved by the European Commission in its decision 'State Aid N 691/2009 – Hungarian stranded costs compensation scheme', dated 27 April 2010. On 7 May 2010, the Office issued a decision regarding the affected power plants with the subject 'Establishment of the recoverable amounts of state aid provided under the Agreement'.

Until the conclusion of the subsidy programme, the Office will monitor the rate of return of the relevant power plants and will prepare a consolidated account for each of the generators at the end of the programme. If investments related to the long term power purchase agreements yield profit or stranded costs incur that was offset without eligibility based on the LTA Act, the Office will oblige the power generator to reimburse the government subsidy.

In line with the Long Term Agreement Regulation, the Office will inform annually, by 30 April of the relevant financial year, the Ministry of National Development on the rate of return of the affected generators (Budapest Power Plant, Dunamente Power Plant, Pannon Thermal Power Plant).

The Office forwarded the 2011 report to the Ministry of National Development by the given deadline.

### Subsidising combined generation restructuring

The fund indicated on electricity bills is a 'combined generation restructuring support' (hereinafter district heating penny) that contributes to the district heating budget established for supporting district heating suppliers. The district heating penny was 1.2 HUF/kWh in 2012, which was charged to each consumer.

The individual district heating suppliers are eligible for the support unless their legitimate income covers their legitimate expenditure. In this case, this support compensates for the annual difference between income and legitimate expenditure. District heating suppliers may claim this support for

heat provided to the household sector. EU legislation does not permit support for non-household district heating.

The amendment to ministerial decree effective from 1 November 2012 resulted in a significant change in the support scheme. The amendment repealed a rule that had been applied since 1 October 2011, where the district heating suppliers had been eligible for support due to procuring heat from a heat and electricity generation licence holder. This essentially meant a guaranteed and automatic benefit. However, since 1 November 2012, support can only be claimed on specific grounds.

In order to avoid over-supporting, the lawmakers introduced a profit cap (the maximum allowed profit can be no more than 2% of the gross asset value calculated during price preparation), therefore if a supplier obtains support and at the same time realizes profit above the cap, they are obliged to repay any excess support to the MAVIR Zrt. based on the resolution of the Office on declaring profit cap excess.

### **Feed-in obligation scheme**

In order to prioritise environmental protection, consumer supplies, savings in primary energy resources, and expanding the available energy resources, Hungary supports renewable energy production and the use of waste as an energy source. The feed-in tariff scheme (hereinafter FIO scheme) is one of the key tools to enhance renewable and waste based electricity production where electricity can be retailed above market prices and sold on sale prices as defined by the legislation.

The operation of the national feed-in obligation scheme is defined by the following statutory provisions:

- Act LXXXVI of 2007 on electricity (hereinafter Electricity Act);
- Government Decree 389/2007 (XII.23.) (hereinafter FIO Decree) on the feed-in obligation and feed-in price of the electricity produced from renewable energy or waste, and on the electricity co-generated with heat; as well as
- Decree 109/2007 (XII.23.) of the GKM (hereinafter Allocation Decree) on the allocation of electricity subject to feed-in obligation to the transmission system operator and on the method of determining prices applied in allocation.

In line with the Electricity Act and upon the producer's request, the Office determines the deliverable amount and delivery period of generated renewable or waste based electricity for the FIO scheme. The right of selling within FIO scheme expires at the end of the determined period or when the licence holder used up the determined quota amount.

By defining the eligible feed-in electricity amounts and the feed-in period, it is guaranteed that the producer only receives support until the investment costs are recovered.

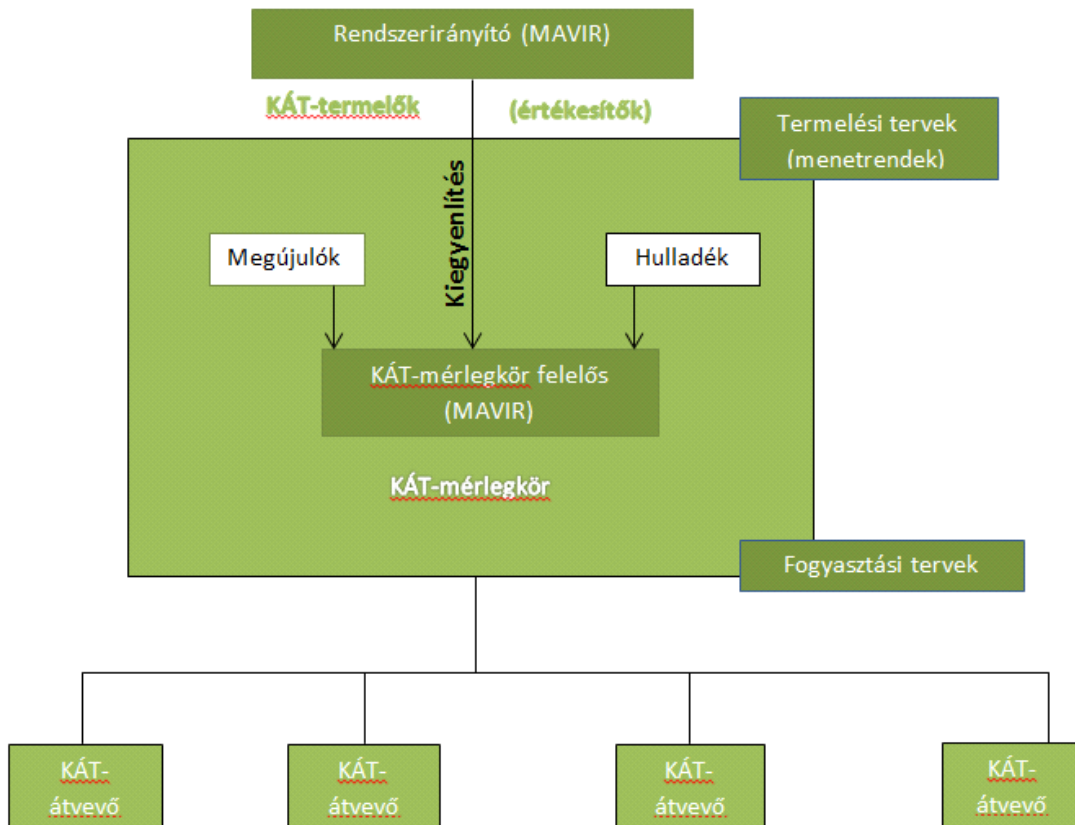
The supported feed-in tariff is different in the case of renewable and waste based electricity generation, and the feed-in tariffs are differentiated based on the amount (nominal capacity), the date of eligibility (before or after 1 January 2008), the time zone (peak, off-peak, and night time), and partially also based on technology (photovoltaic, wind power).

The basis of the operation of the FIO scheme is the FIO balancing circle, which has been in place in its current form since 2008. The operation of the FIO balancing circle is defined not only by the Electricity

Act, but also by the FIO Decree and the Allocation Decree. The Electricity Act stipulates that power plants selling into the FIO scheme constitute a separate balancing circuit, which is operated by MAVIR Zrt.

The task of transmission system operator (receiver) is the operation of the FIO balance circle, including balancing any deviation from the operational plan, as well as the allocation and accounting of the feed-in electricity within the FIO scheme.

• **Figure: Operation of the FIO balancing circle**



Source: MEKH

- System operator (MAVIR)
- FIO producers (sellers)
- Production plans (schedule)
  - Balancing
  - Renewables Waste
- In charge of FIO balance circuit (MAVIR)
  - FIO balance circle
  - Consumption plans

- FIO receiver FIO receiver FIO receiver FIO receiver

The electricity producer (seller) subject to obligatory feed-in – provided that it fulfils other requirements as defined by legislation – has the right to join the FIO balance circle. MAVIR Zrt, as the FIO balancing circle manager, signs a balancing circle membership contract with the sellers. MAVIR Zrt., as the receiver, pays the feed-in tariff for the electricity supplied to the balancing circle by the sellers, and then allocates the electricity and its costs proportionally based on individual consumption (in the case of electricity imports, proportionally to their imports) among the FIO receivers.

FIO receivers (just like all universal service providers, until 1 January 2013) and the producers directly selling to consumers, as well as the electricity-importing consumers are all electricity traders. The reallocated costs of green electricity are built into the FIO receiver's portfolio; therefore, the FIO support costs are eventually shouldered by the consumers.

From 1 January 2011, co-generated electricity production was excluded from the FIO scheme and since October 2011 its heat generation receives support. As a result, only renewable and waste based electricity producers received FIO support in 2012. In the following, we disregard co-generation in our comparisons to 2011.

In 2012 the eligible electricity producers within the feed-in obligation (FIO) scheme sold 1866.86 GWh electricity (renewable: 1861.53 GWh, waste-based: 5.23 GWh), which is a slight increase in comparison to the previous year (disregarding co-generation).

Renewable electricity sales within the FIO scheme slightly increased from 1840.3 GWh in 2011 to 1861.53 GWh in 2012. With the exception of hydro and mixed fuel (coal-biomass) generation PPs, all renewable technology based production showed an increase in sales. Furthermore, photovoltaic power production also appeared within the FIO scheme.

Waste-based electricity sold within the FIO decreased by more than 50% to 5.23 GWh. The significant decrease in mixed fuel generation can be explained by the closure of the Borsodi Thermal PP and the exhaustion of the Vértesi PP's FIO quotas. The main reason behind the increase in pure biomass based power production sales is the re-opening of the DBM Ltd (Szakolyi PP).

• **Table: Electricity sold within the FIO scheme (GWh)**

	2011	2012	Change
Wind power	600.96	742.49	23.55%
Hydro	212.20	203.14	-4.27%
Biomass (pure)	510.33	600.48	17.66%
Coal-biomass mix	401.48	151.31	-62.31%
Biogas	79.10	118.29	49.55%
Landfill gas	35.24	44.26	25.60%
Waste water gas	1.00	1.23	23.49%
Photovoltaic	0.00	0.33	-
Total renewable	1,840.30	1,861.53	1.15%
Waste	13.01	5.23	-59.80%
Combined	2,150.23		
Different fuel	4.22	0.19	-95.50%
Total renewable, waste and mixed fuel	1,857.52	1,866.96	0.51%

Source: MEKH

By the end of 2012, the total installed capacity of the power plants – renewable, waste and mixed fuel – within the FIO scheme reached 555.38 MW (with the renewable generation capacity within the FIO 546.5 MW). The capacity of mixed fuel generators within the FIO scheme decreased due to the closure of the AES Borsodi Thermal PP in June 2011 and the biomass capacity dropping at the Vértesi PP.

Feed-in tariffs in line with regulatory provisions increased in 2012 (by 3.9% - the level of inflation in 2011 corrected downwards with one percentage point) in the case of renewable and waste-based electricity production.

- **Table: Installed capacities of power plants within the FIO at the end of the current year**

	2011	2012	Change
Wind power	326.00	325.25	-0.23%
Hydro	53.99	49.10	-9.06%
Biomass (pure)	99.70	99.70	0.00%
Coal-biomass mix	121.96	32.52	-73.34%
Biogas	28.46	30.08	5.69%
Landfill gas	7.41	9.12	23.08%
Waste water gas	0.33	0.33	0.00%
Photovoltaic	0.00	0.40	-
Total renewable	637.85	546.50	-14.32%
Waste	8.86	8.86	0.00%
Combined	1,322.03		
Different fuel	0.03	0.02	-33.33%
Total renewable, waste and mixed fuel	646.74	555.38	-14.13%

Source: MEKH

The below tables demonstrate the amounts paid to the producers within the FIO scheme in 2011 and 2012. The amounts paid to renewable, waste and mixed fuel producers slightly rose due to the increase in the electricity sold and inflation adjusted tariffs.

- **Table: Sums paid out within the FIO (Billion HUF)**

	2011	2012	Change
Wind power	18.45	23.69	28.38%
Hydro	4.19	3.99	-4.78%
Biomass (pure)	15.64	18.97	21.28%
Coal-biomass mix	12.74	4.85	-61.88%
Biogas	2.40	3.72	55.12%
Landfill gas	1.02	1.32	29.19%
Waste water gas	0.03	0.04	33.33%
Photovoltaic	0.00	0.01	-
Total renewable	54.47	56.60	3.90%
Waste	0.32	0.14	-56.25%
Combined	56.13		
Different fuel	0.07	0.003	-95.31%
Total renewable, waste and mixed fuel	54.87	56.74	3.40%

Source: MEKH

The level of 'support' provided to the producers within the feed-in obligation scheme is calculated as the difference between the obligatory feed-in tariff and the market price minus the feed-in support. The source of 'support' is provided by feed-in obligation receivers, to whom MAVIR Zrt. – in line with rules and regulations – reallocates the electricity and the related costs. (It is important to note that since 1 January 2013 universal service providers – and their universal service consumers – are exempted from feed-in tariff contributions.)

In line with the FIO Act and in order to check the eligibility of feed-in claim issues, the Office provides a guarantee of origin certificate to renewable or waste-based generation producers and co-generation producers within the given calendar year, if the requestor fulfils the requirements of this decree, and, in the case of co-generation, the high efficiency co-generation production of electricity and the useful heat volume calculation methodology fulfils the requirements of the additional rules and regulations. During the issuing procedure, the Office may request data reconciliation and may conduct local inspections.



The Office first issued universal guarantees of origin applicable to all feed-in obligation power plants in 2012. As these guarantees referred to production in 2011, these were also issued to co-generators who realized their production within the feed-in obligation scheme that year. In 2012, 273 electricity production guarantee applications were received (157 co-generation and 116 renewable or waste-based generation), 232 of these were approved (127 co-generation, 105 renewable or waste-based generation), 25 were cancelled (20 co-generation, 5 renewable or waste-based generation), 13 were rejected (9 co-generation, 4 renewable or waste-based generation), and administrative process for applications from three co-generation license holders were postponed to 2013.

### **Allowance for large families**

The allowance for large families targeting household consumers with a <20 m<sup>3</sup>/h gas-meter who are not community consumers and have at least three children have an annual allowance of 6,840 MJ (200 m<sup>3</sup>) per child and an additional 10,250 MJ (300 m<sup>3</sup>) natural gas allowance at price category I. rates (above the 41,040 MJ/1200 m<sup>3</sup>). For community consumers, the allowance is calculated on a HUF/year/child basis that can be accessed through the residential community representative.

The application procedure for the large family allowance discount was simplified within the Magyar Programme in 2012. The Office was represented in the working group that provided the new legislative framework, primarily working on price regulation and consumer protection by providing consistency between the Hungarian State Treasury and natural gas universal service providers.

The simplification of the application procedure now makes it possible for a household to receive the benefit, even if the meter is registered to a person other than the family allowance receiver.

As of 1 January 2013, it is no longer necessary to apply annually for the allowance, the eligibility for the allowance is obtained with the family allowance, with the restriction that if there are any changes

in the eligibility for this allowance, the person entitled to the benefits is required to report the changes to the Hungarian State Treasury within 15 days.

### **Subsidising the restructuring process of the coal industry**

Subsidising the restructuring process of the coal industry (coal penny) covers the costs of closing down Hungary's last underground coal mine in Márkushegy (exceptional support), which provides necessary supplies for the Ororszlányi Power Plant owned by the Vértesi Erőmű Ltd, and this fee also finances the losses (operational losses) of the coal mine until the end of 2014.

All electricity consumers were charged this fee at the rate of 0.19 HUF/kWh in 2012.

According to Section (1) of Article 3 of the Govt Decree on the detailed calculation and handling of the support for the restructuring process of the coal industry, two types of subsidies can be provided within the coal industry restructuring process:

- The exceptional support that is based on Article 4 of the 2010/787/EU Council Decision (hereinafter CD), and calculated based on the difference between income and the costs incurred by closing the coal producing units, not relating to the ongoing production, as well as
- calculated based on the current production losses legitimately incurred at the coal producing units, closure aid defined by Article 3 of the CD.

The exceptional support provides coverage for the costs of closing the mine (including severance payment costs). According to Section (2) of Article 3 of the Government Decree 278/2007. (X.20.) on exceptional support, it is necessary to monitor whether the incomes and the expenditures of the shutdown are reasonable. The monitoring is conducted by the Office, who provides a disbursement recommendation to the minister.

### **Supporting discounted electricity price for employees or former employees of the electricity sector, based on the relevant legislation (also called C-tariff)**

From 2008, the discount in the purchase price of electricity for employees of the electricity sector has to be covered by universal contribution from all consumers (hereinafter pensioner penny). The pensioner penny was 0.09 HUF/kWh in 2010, which declined to 0.07 HUF/kWh from 1 January 2011, and remained unchanged in 2012. The incomes from pensioner penny payments are accounted in a separate account; this income is redistributed by MAVIR Zrt to universal service providers.



## V. Consumer Protection

Since its establishment, the Office has been giving high priority on consumer protection. Due to this fact, the Hungarian regulation on quality of supply served as a sample for several European countries in developing their energy market regulation.

### Quality of supply

Regulation of quality of supply developed by the Office lays on the following pillars:

- continuous supply,
- consumer relations,
- Guaranteed Services and
- voltage quality with regard to electricity.

In addition to objective results achieved by regulation of supply quality, the Office prepared its sixteenth survey in 2012 on the satisfaction of the customers of distribution licensees and universal service licensees in order to learn the subjective opinion of customers. The sample used in the survey contains 7600 household and 2600 industrial customers nationwide. The methodology of the survey was the same as applied in 2011, thus the results can be directly compared also numerically.

Aggregated results of *electricity supply* show that 2012 did not witness any essential changes compared to last years. Aggregate data of indices show a constant, however moderate improvement in the last three years. Similarly to last years, customers indicated voltage fluctuation, breakdowns – especially those of long duration – and handling and resolving of complaints as the most problematic activities of distribution licensees. In the competence of universal service licensee, complaint management and call center got low satisfactory scores. The latter is remarkable since customers at the same time indicated call centers among possible client service availabilities at the first place as the most preferred way of contacting suppliers. Satisfaction with contents of bill has improved to a small extent compared to last years. While 71% of customers in 2010 and 75% in 2011, as much as 76% had a positive opinion on electricity bills in 2012.

Considering activities of *natural gas distribution* licensees, reliability of consumption metering showed significant improvement based on households data. Based on the opinion of the surveyed non-household customers, there was an effective improvement in reliability of consumption metering, information on maintenance obligation and the overall quality of gas supply. There was only one significantly decreasing score given by non-household customers that is information on gas supply interruptions. In the competence of universal service licensee, satisfaction with the possibility to change partial bill based on the opinion of household customers improved however, satisfaction with timing of billing lowered. There was no considerable change in the satisfaction scores of non-household customers. Satisfaction with the content of bill improved to a small extent relative to last years. While only 66% in 2010, as much as 72% in 2011 and 73% of customers in 2012 had a positive opinion on universal service bills.

#### ***Continuous supply, reliability and interruptions***

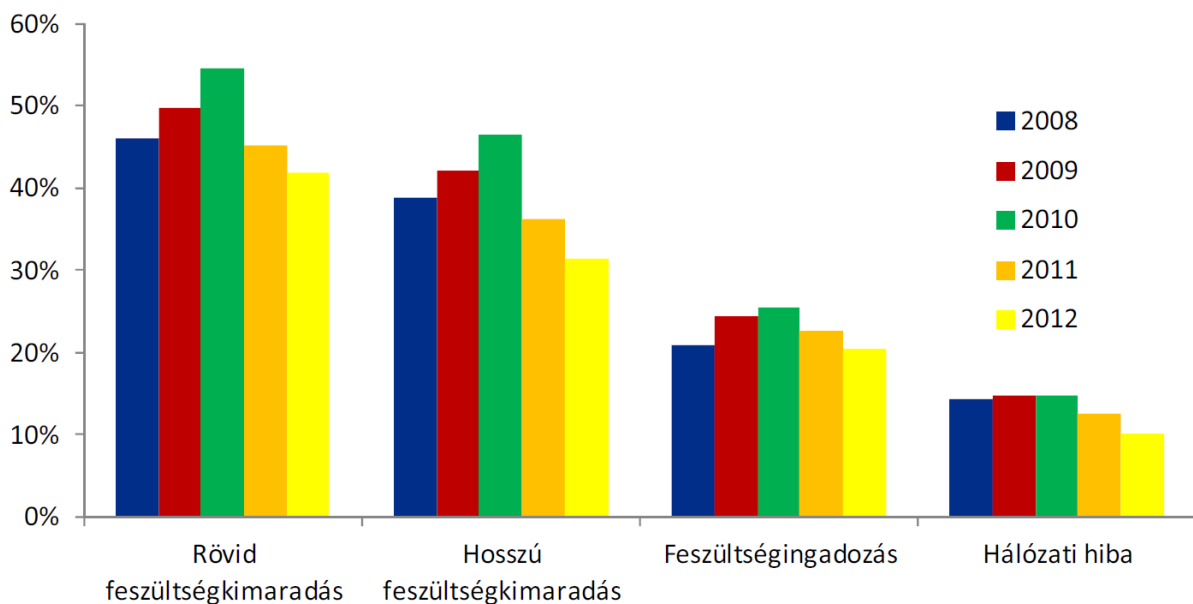
Financial incentives aiming at the continuous improvement of quality of supply provided by electricity distribution licensees are based on minimum quality standards to frequency and duration of non-planned interruptions as well as to the non-supplied electricity outage index.

The Electricity Act gives powers to the Office to set minimum standards and the expected level of supply in a decree. These standards were calculated on the basis of three-year averages – in order to compensate the effect of extraordinary weather conditions – allowing for individual assessment of vis major events. In its decree, the Office requires an annual improvement expressed in percentage

of three expected supply quality indices in addition to the internationally accepted minimum quality standards and indices, which also serve as a base for financial incentives to quality of supply provided by electricity distribution licensees.

The Office evaluated the 2011 level of reliability of *electricity supply* in June 2012. The Office, as disclosed also on its homepage, stated that the constantly improving tendency of all the three indices measuring interruptions stopped in 2010, which was followed by a significant improvement in 2011. The annual number of interruptions per customer accounted for 1.21, and the average duration of interruptions per customers was 76 minutes. The outage index characterising the non-supplied electricity is calculated as the division of non-supplied and supplied electricity, and is one of the oldest index that has been monitored by the electricity industry. The outage index in 2011 improved by 20% relative to the constant values of 2008 to 2010.

**Figure Failures disturbing uninterrupted household power supply between 2008 and 2012 (Short electromagnetic disturbances Long electromagnetic disturbances; Voltage fluctuation; Network failure)**



Source: MEKH

Among distribution licensees, E.ON Tiszántúli Áramhálózati Zrt. exceeded the minimum quality standard of average interruption duration in 2011 by 4% (112,1 minute/customer), but it is still within the 5% tolerance range, therefore it avoided the penalty of decreased distribution fees. All the other licensees fulfilled both the minimum standards and the expected standards of all indices.

With regard to *natural gas*, following conciliations between the Office and the representatives of licensees, the Office determined for 2012 the expected level of operational security indices taking into account the past data of operational security indices, contents of data on operational security submitted by licensees, individual factors influencing the natural gas distribution activity of licensees and the expectations of the Office.

### **Customer Relations Service Quality**

The system of indices established for the regulation of customer relations service quality is based on back-to-back requirements and is structured like a pyramid. The bottom layer of this pyramid consists of the monitoring-type indices, to which there are nor minimum quality standards neither expected level of supply have been set. These indices are calculated in order to monitor and compare the activity of licensees and may serve as a base for a future regulation.

The medium layer of the regulation pyramid consists of the indices, on which the Office have set expected level of supply – partially on the basis of statutory provisions. Should a licensee fail in

meeting these requirements, the Office may apply sanctions following a posterior authority controll. The top layer of the regulation system consists of indices relating to which the Office set both an expected level of supply and a minimum quality standard. Should a licensee fail in meeting the latter ones, the Office may impose a penalty up to 100 million HUF/index in two steps depending on the measure of the default.

With regard to electricity, the assessment of the 2011 customer relations service quality has been prepared and disclosed by the Office on its homepage. The Office had discussions with licensees on the fine-tuning and interpretation of the contents of the issued resolutions if it was required. With regard to natural gas, the Office issued its resolutions on expected level and minimum quality standards of customer relations service in 2009. In 2012, there were no changes in legislation that would have required new resolutions to be issued.

### **Guaranteed Services**

With regard to *electricity*, the Office evaluated the 2011 activities of licensees based on the annual data supply in connection with minimum quality standards effecting individual customers e.g. the system of Guaranteed Services (hereinafter GS) in 2012, which has been disclosed on the Office's homepage. The GS resolutions of the Office issued in 2003 were updated and issued again in 2008 for electricity distribution, universal service and trading licensees in accordance with the new statutory provisions.

Due to increased number of breakdowns occurring due to extraordinary weather conditions, in November 2009, the Office worked out the detailed regulation of GS II. 'Termination of outages in electricity supply affecting several consumption places' determined for distribution licensees as a result of several month long conciliations. In this regulation, durations has been determined for which customers get financial compensation for long interruptions occurring due to extraordinary weather conditions.

Taking into account the preparation time required for the development of the IT systems of distribution licensees, the requirement of automated payments – replacing payments launched on the request of customers had been gradually introduced from 2009. As a last step, penalties have been paid automatically since 1 January 2011 by electricity distribution, universal service and trading licensees concerning all standards. In virtue of GS resolution, distribution licensees will pay compensation to all affected customers if they fail meeting any of 13 minimum standards, universal service providers will pay if they fail meeting any of 5, while trading licensees will pay if they fail meeting any of 4 minimum standards.

**Table 16 Accumulated figures of Guaranteed Services of 2011**

Licencees	Number of cases under GS (pcs)	Number of cases non-completed (pcs)	Number of penalties paid automatically (pcs)	Penalties paid, total (pcs)	Penalties paid, total (HUF)
ELMŰ Hálózati Kft.	2 667 869	15 579	15 579	15 579	87 765 000
ÉMÁSZ Hálózati Kft.	1 766 865	3 957	3 957	3 957	22 957 000
EDF DÉMÁSZ Hálózati Elosztó Kft.	1 450 315	2 480	2 976	2 976	19 663 640
E.ON Dél-dunántúli Áramhálózati Zrt.	1 233 074	5 378	5 378	5 378	31 669 000
E.ON Észak-dunántúli Áramhálózati Zrt.	2 512 130	8 619	8 616	8 631	50 286 000
E.ON Tiszántúli Áramhálózati Zrt.	2 064 380	6 355	6 355	6 366	35 760 000
<i>Distributors, total</i>	<b>11 694 633</b>	<b>42 368</b>	<b>42 861</b>	<b>42 887</b>	<b>248 100 640</b>
EDF DÉMÁSZ Zrt.	99 071	605	605	605	3 905 000
ELMŰ Nyrt.	92 900	51 886	51 965	51 965	293 085 000
ÉMÁSZ Nyrt.	36 552	16 213	16 229	16 229	87 660 000

<b>E.ON Energiaszolgáltató Kft.</b>	487 312	657	657	657	3 745 000
<b><i>Universal Service Providers, total</i></b>	<b>715 835</b>	<b>69 361</b>	<b>69 456</b>	<b>69 456</b>	<b>388 395 000</b>
<b><i>Traders, total</i></b>	<b>50 877</b>	<b>3 551</b>	<b>3 539</b>	<b>3 539</b>	<b>35 620 000</b>
<b><i>Total</i></b>	<b>12 461 345</b>	<b>115 280</b>	<b>115 856</b>	<b>115 882</b>	<b>672 115 640</b>

Source: MEKH

For failing fulfilling the standards, GS, ELMŰ Nyrt. and ÉMÁSZ Nyrt. of universal service licensees had to pay significant penalties to its customers, which was resulted from the delay in resolving customers' complaints on the problems caused by the development process of billing and IT systems of licensees.

In *natural gas*, GS was introduced in 2010. Considering the novelty of regulation, the Office paid special attention to the establishment of regulatory orientations and conciliations with licensees and consumer protection organisations. As a result, resolutions were issued after conciliations in three circles. As the last step of the regulatory process, 16 GS resolutions were issued for natural gas licensees. 2011 was the first time when licensees had to supply data on the fulfillment of GS requirements. This evaluation was prepared by the end of 2012. In virtue of resolutions, compensations are paid automatically also in this sector since 1 January 2012 except one index, which will be automatic from 1 January 2013.

### ***Voltage quality***

Meterings initiated earlier at distribution licensees by the Office, conducted with 400 meters simultaneously in rotation launched a uniform voltage metering culture in Hungary. The goal of '*Professional recommendations on the establishment of a uniform voltage quality monitoring system*' issued by the Office on 7 April 2008 based on its former experience was the propagation and further development of the already launched voltage quality metering culture. The reporting obligation and the annual assessment are aimed to track and develop meterings.

Another form of voltage quality control is the reporting obligation on the number of customers per 10,000 customers supplied permanently, i.e. for more than 12 months, with non-standardised voltage as included in the resolution issued by the Office in 2005 on expected level and minimum quality standard of reliability of electricity supply.



In voltage quality monitoring system, 1092 meters were involved in meterings at low voltage in 2011. The utilization of meters was average 1.19 months annually. The increase in number of utilization of meters is in process. In low voltage meterings, 6% of Hungary's total 4201 metering points was supplied permanently with non-standardized voltage. Considering the fact that several distributors made meterings on the points it considered troubled, therefore this value reflects not only the quality of distribution network but also the efficiency of allocation of meters. In 0.49% of meterings, voltage exceeded the standardized tolerance limit of  $\pm 10\%$ , which accounted for a 0.1% improvement compared to 2010.

The annual utilization of meter network consisting of 248 meters at medium voltage was average 11.16 months, which is an outstanding result. Meterings at medium voltage account for nearly 68% of the total national duration of meterings. The results of meterings exceeding 1.99 million hours show that the duration of deviation from the standardized tolerance limit of  $\pm 10\%$  was 63 hours (0.0031%), which is significant improvement relative to 2010 (124.7 hours, 0.009%).

The assessment of voltage quality meterings and further detailed data are disclosed on the Office's homepage.

### **Customers' complaints**

A part of household customers' complaints were taken over by Nemzeti Fogyasztóvédelmi Hatóság (NFH, Hungarian Authority for Consumer Protection) due to reallocation of competences. There has been a radical shift since 2007 in the contents of complaints toward cases of breach of contract, the investigation of which is the competence of the Office instead of NFH. In addition, even after the reallocation of competences, the ratio of public (not private) customers' complaints falling within the scope of the Office's competence has grown. These latter ones typically have more sites, resulted from by individual problems and the settlement is made on the basis of a more complex algorithm, and so their investigation require more time compared to the more simple and repetitive complaints of household customers.

The ratio of complaints on failed or delayed switches, delay in billing after switching supplier and/or settlement disputes with the former supplier. In addition to the given customer, these cases generally affect three licensees, thus the inspection is more complex, takes for longer and requires deeper knowledge of the system. Currently, new types of complaints have occurred, which relate to disconnection of consumption places consuming electricity without contract or billing of electricity consumed without contract.

Following a drastical jump in 2007, the annual number of customers' complaints falling under the scope of the Office's competence temporarily fell in the last 5 years – as a result of sharing competence with NFH however, since then the tendency is constantly increasing.

**Table 16 Consumer's complaints**

	2007	2008	2009	2010	2011	2012
<b>Complaints, total</b>	2 197	865	894	1 320	2 657	3 390
<b>Other cases</b>	942	647	655	493	185	22
<b>Managed by Office</b>	3 139	1 512	1 549	1 813	2 842	3 412
<b>Transferred to NFH</b>	-	329	328	420	307	245
<b>Total</b>	3 139	1 841	1 877	2 233	3 149	3 657

Source: MEKH

In addition to complaints submitted in writing, the number of e-complaints, electronically submitted requests for information/position are going up. In addition to written complaints and requests, the number of phone calls and personal contacts in the Office' groundfloor reception room were also significant. To sum it up, the Office receives approximately 150 personal requests and as much as 4000 phone calls annually.

2129 out of the total 3390 complaints mentioned above related to natural gas, while 1261 to electricity licensees. These amounts are 29% and 25% higher than the ones in 2011. The Office launched a public authority procedure in each case.

## Approval of codes

At the beginning of 2012, electricity and natural gas licensees had to submit their reviewed Business Conduct Rules for approval because of changes in statutory provisions with the goal to harmonise Business Conduct Rules with the actually effective statutory provisions. The modification of Business Conduct Rules of universal service providers were approved exclusively after requesting the opinion of NFH.

## Investigations

Despite the growing number of complaints on electricity licensees, the Office conducted several investigations at various areas. In 2012, the Office tested the correctness of data supplied to the Office on reliability of supply and GS. The handling of compensations to be paid automatically according to GS was investigated, as well. In the course of these investigations, the Office stated that the data supply of licensees meets the requirements included in the relevant resolutions and the licensees' data register is suitable for fulfilling GS.

## VI. Price Regulation

As a result of the liberalisation of electricity and gas markets (2008 and 2009 respectively) each consumer is entitled to choose its electricity and gas supplier. The market determines energy prices on the competitive segment of the market, whereas consumers eligible for universal service are entitled to purchase power and gas at a regulated price.

Similarly, district heating can be purchased by households and public institutions at regulated price, meanwhile, district heating prices depend on bilateral agreements for the rest of consumers.

The Office is a price regulatory body in the supervised industries. Within the electricity and natural gas sectors, the Office prepares the Universal Service prices for the Minister. The Office also prepares heat generation and supply prices, as well as utility charges for water and waste management. Electricity and natural gas network use (transmission and distribution) charges were set in regulatory resolutions in 2012.

In addition, the Office supervises charges and carries out cost review. As for charge supervision, the Office controls whether licensees apply the charges set by the Ministry or the Office. Cost review is held every four years in electricity and natural gas distribution and transmission sectors, whilst in district heating cost review is continuous. During the cost review process, the Office determines the eligible income of the licensees, which forms the basis of regulated price setting.

In line with Governmental decision on prices, the Office prepared the first price cut at the end of 2012, meaning 10% cut in natural gas, electricity and district heating prices effective from 1 January 2013.

### Price preparation

#### Electricity

The Minister of National Development sets electricity universal service prices in ministerial decree 4/2011. (I. 31.) NFM from 1 February 2011, based on the proposal of the Office.

Small low voltage consumers (and public institutions from 2009) – if they have not opted for the free market – were provided electricity under universal service, i.e. under regulated price.

Universal service customers are the household consumers, low voltage consumers with maximum of 3\*63A connection capacity adding up all their points of delivery (mainly small enterprises), and public institutions (in terms of universal service price).

Since the introduction of the concept of universal service in 2008, universal service prices are clearly split up to electricity (product) price, distribution and transmission charges, taxes and other items (so called funds) for the eligible residential and non-residential consumers.

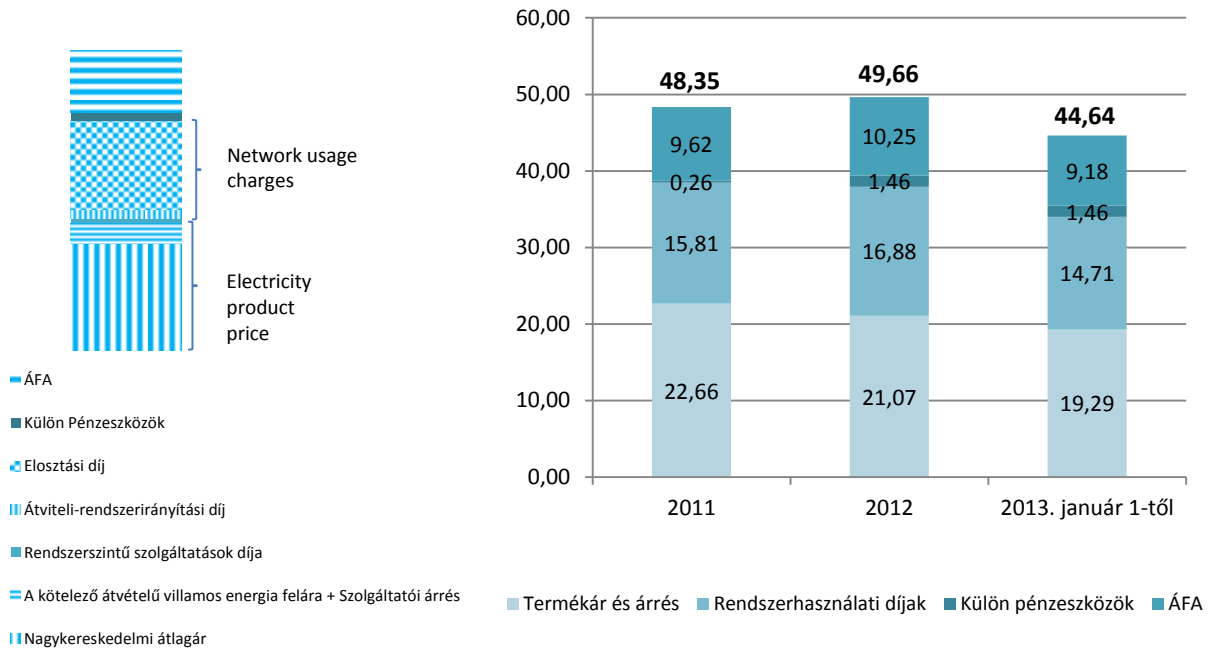
Since July 2009, universal service prices are set regionally, whereas the other price components (distribution, transmission, funds, energy tax of non-residential consumers) are set uniformly.

In contrast to natural gas, the concept of universal service price in electricity refers only to the product (with the acknowledged costs of the supplier), but it does not contain network use charges.

Transmission system operation charge is set to cover the acknowledged costs of high voltage network operation, maintenance, physical network loss, as well as the cost of management of the national electricity system. The charge of ancillary services covers the cost of reserve capacities to ensure the balance of electricity production and consumption. The above charges cover the acknowledged costs of the transmission operator.

Electricity generated in power plants gets to the distribution networks – operated, maintained and developed by distribution system operators (licensees) – via transmission network. Distribution charges (namely: distribution base charge, distribution energy charge, capacity charge for certain consumer categories, reactive power charge, distribution network loss charge, distribution balancing charge) and the public lighting charge are set to cover costs of operation and maintenance of distribution networks, their costs related to customer service, as well as eligible costs of network loss.

**Figure 1: The components of residential (A1) end-user electricity price (with 2400 kWh yearly consumption) in HUF/kWh**



Source: HEO

VAT – Special funds – Distribution charge – Transmission charge – System balancing charge – Obligatory feed-in + Supplier margin – Average wholesale price

Energy price component and margin - Network use charges - Special funds - VAT

Under universal service the purchase price of electricity means the national average market based electricity purchase price acknowledged (including the purchase of FIO electricity till 2013), whilst margin covers the eligible level of costs on top of the acknowledged electricity purchase price.

Among the so called funds, the fund for supporting coal industry restructuring covers those costs of the coal mine at Márkushegy owned by Vértés Power Plant Plc. till its shutdown, which have not been paid back from the electricity (generated from coal at the power plant) sold. Another fund allows for the discount electricity price to be paid by the pensioners of the power industry. The cogeneration restructuring fund serves to support district heating supply.

The Office prepared its proposal for the amendment to the universal service price decree effective from January 2012. The proposal was based on its estimated price and quantity of electricity purchased by universal service providers under FIO in 2012, the eligible purchase price of electricity (besides FIO) of universal service providers in 2012, and assumed that universal service providers realise their margin (differing for each provider) on yearly average set in the price decree.

The margins of universal service providers (ranging from 1.711 to 1.928 HUF/kWh, different for each provider) for 2012 were based on the partially adjusted (by inflation) costs acknowledged in the 2010 asset and cost review.



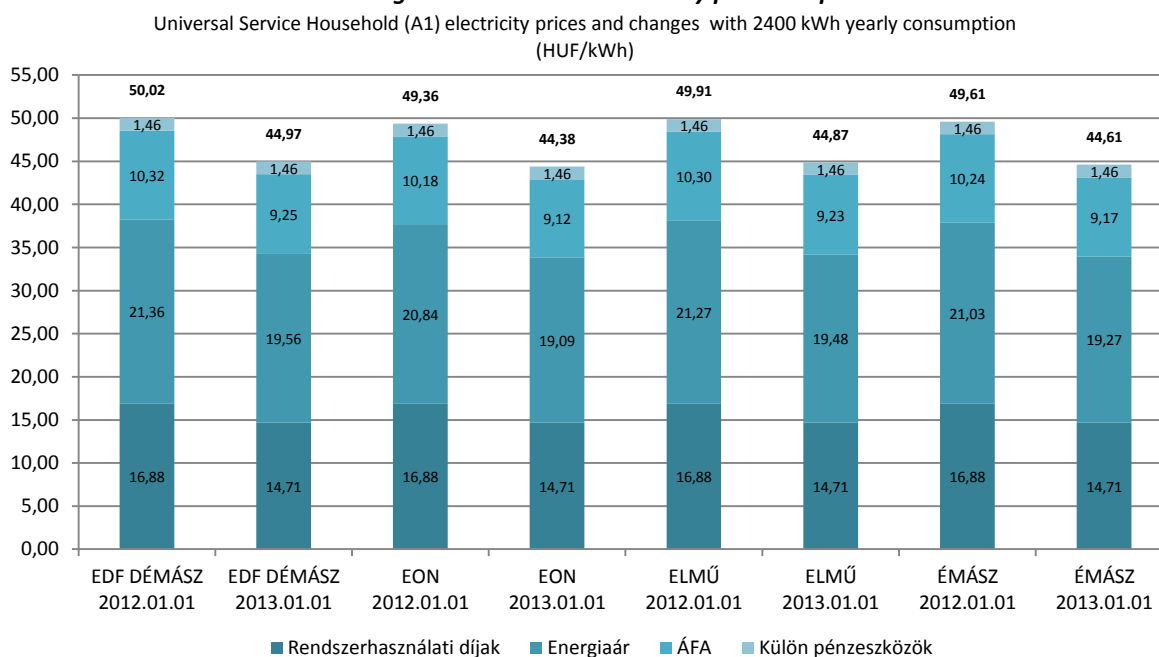
The Office carried out a full asset and cost review among universal service providers. The revision was based on 2011 costs and quantities. The eligibility of costs also included the revision of costs of services from affiliated companies of universal service providers (transfer price analysis), and the costs of activities of universal service providers were subject to benchmark analysis. As a result of several analyses mentioned above, eligible costs were defined.

Based on governmental decision on 10% price cut in residential end-user prices effective from 1 January 2013, the 2013 margin of universal service providers was set to 1.316 HUF/kWh in a ministerial decree. Upon the amendment to the Electricity Act, from 1 January 2013 universal service providers are exempt from obligatory takeover of electricity generated from renewables or waste.

Universal services prices were changed twice recently, at the beginning of 2012 and 2013. Prices decreased by different rates from 0.4% to 6.6% for the different providers.

The Office prepared its proposal on 2013 universal service prices based on its asset and cost review carried out in 2012, taking into account the governmental decision. Upon these, universal service prices effective from 1 January 2013 were 7.1% lower on average (ranging from 6.8 to 7.8% decrease for the different suppliers) compared to 2012. Universal service prices for households reduced even more. These were 8.8% lower on average compared to 2012 levels. The 10% price cut from 1 January 2013 in household end-user prices adds up from the reduction of both universal service prices and network charges.

**Figure 2: Household electricity price components**



Source: HEO

Network use charges - Energy product price – VAT – Special funds

## Natural gas

Consumers are free to choose their natural gas supplier since 2009. Consumers eligible for universal service purchase natural gas on a regulated price. Universal service customers are the household and other consumers with a maximum capacity of 20 m<sup>3</sup>/h.

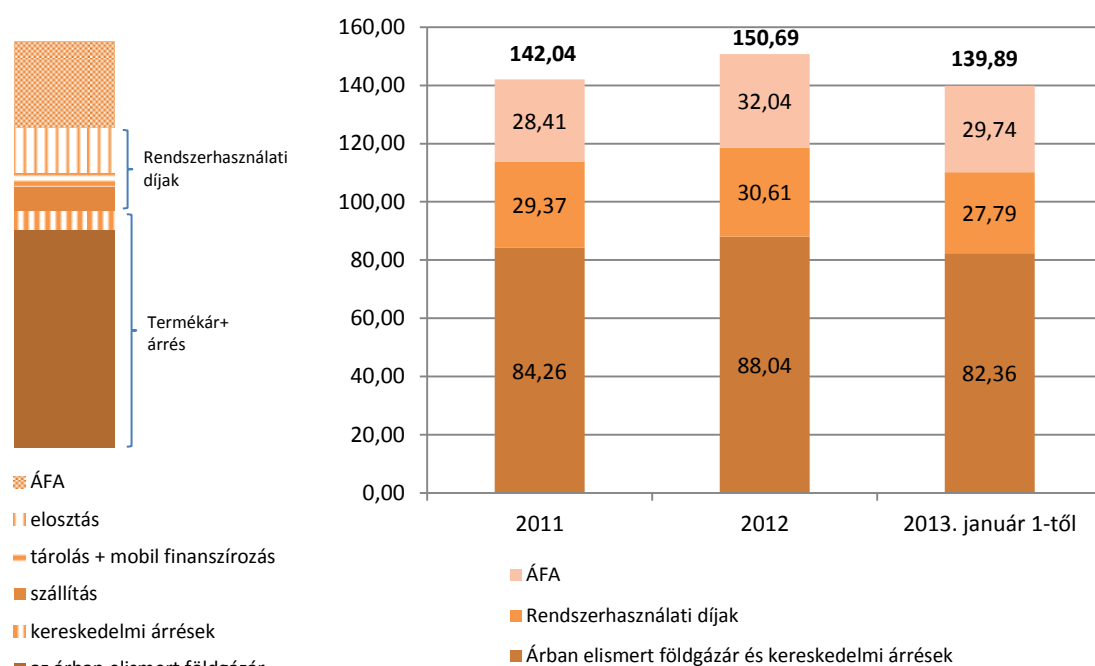
The universal service end-user prices (fix and variable charge) contain the product price of natural gas, costs of network usage and working gas financing, and margins. Universal service price is subject

to VAT, however, in the Ministerial decree (No 28/2009. (VI. 25.) KHEM) determining the tariff rates related to universal service on the natural gas market, tariffs do not contain VAT.

The contribution fee of members of the Hungarian Hydrocarbon Stockpiling Association (strategic stockpiling fee) passed through to consumers appears separately on the bills of universal service providers, which accounts for 0.0605 HUF/MJ since 2012. From January, 2013 universal service providers do not need to pay this fee after household consumers, thus suppliers cannot charge this fee on households.

Natural gas universal price composes of the natural gas product price, the network use charges (in contrast to universal service in the electricity sector), the wholesale margin and the universal service margin, as well as the costs of financing working gas.

**Figure 3: Natural gas end-user price components (HUF/m<sup>3</sup>)**



Source: HEO

VAT – Distribution – Storage + Working gas financing – Transmission – Wholesale and supplier margin – Acknowledged gas price

VAT - Network use charges - Acknowledged gas price + Wholesale and supplier margin

### **Natural gas prices, offered gas prices**

The acknowledged natural gas price for universal service providers is based on the formula set in Decree (No. 29/2009. (VI.29.) KHEM) on pricing mechanism related to universal service on natural gas market. This formula takes several factors into account. Apart from stored gas, market (commodity exchange spot and forward) price weight remained at 70%, whilst long term gas purchase price weight at 30%. Market prices (at commodity exchanges) are generally lower, than prices set in the long term gas purchase agreement with Gazprom, therefore taking into account market prices with a higher weight makes acknowledged gas price lower.

Keeping overhead costs low in 2012 required universal service providers to receive cheaper gas than the formula in ministerial decree no. 29/2009. (VI.25.) would suggest. This could be achieved by keeping the regulated price of domestic natural gas production low. This way, universal service providers were ensured that their purchase portfolio has a certain average level, which they could collect via the regulated end-user price level. Except for the regulated price of domestic production, purchase price of the different sources in the portfolio of universal service providers should be taken

into account according to the formula set in ministerial decree no. 29/2009. (VI.25.) KHEM regardless of the real purchase price.

The Office prepared and submitted its proposal to the Ministry on the offer price in the second, third and fourth quarters. Offer price is a regulated price for to be paid by universal service providers for non-market based natural gas sources for supplying their customers.

Foreign exchange rates acknowledged in price regulation are set in ministerial decree. Accordingly, in the first half of 2012 the exchange rates acknowledged in price regulation were 210 HUF/USD and 279.1 HUF/EUR. From 4, July 2012, acknowledged exchange rates increased to 220 HUF/USD and 280.3 HUF/EUR. Ministerial decree no. 29/2009. (VI.25.) KHEM was amended effective from of 1 January 2013, the previously fixed coefficient used for taking into account stored gas price was changed that it should be taken into account proportionately with the winter preparation plans of universal service providers. Furthermore, the period used to calculate spot prices, fuel oil/gas oil prices in the gas price formulae has changed, enabling the Office to submit its proposal to the Ministry on the price offered to universal service providers 40 days before the actual quarter, keeping the deadline set in the Natural Gas Act.

### ***Changes in end-user prices***

Based on the changes listed above, the following changes occurred to the end-user natural gas price over the last period:

- End-user prices including VAT increased by 4.2% on 1 January 2012, however, in real terms end-user prices declined taking into account inflation.
- Household end-user natural gas prices were reduced by 10%, whereas natural gas prices to be paid by non-household customers remained unchanged on 1 January 2013.

Governmental decree No. 1586/2012. published on 15 December 2012 contained the end-user price cut in electricity, natural gas and district heat. This was followed by Ministerial Decree No. 78/2012. (XII. 22.) NFM on the modification of certain energy price regulation related ministerial decrees published on 26 December 2012, containing the new universal service prices.

### **District heating**

From 15 April 2011 onwards, prices of district heating sold to district heating suppliers, household customers and institutions under special treatment is regulated.

The district heating price regulation, which is in force since 1 October 2011, is based on two decrees: Ministerial decree No. 50/2011. (IX. 30.) NFM on fixing heat prices sold to district heating suppliers, household consumers and institutions under special treatment; and Ministerial decree No. 51/2011. (IX. 30.) NFM on district heating supply subsidy. The latter decree contains the charges and and subsidy per unit for the 2012/13 heating period.

The Office is responsible for the preparation of proposals to the Minister of energy policy till 31 August each year on the price of district heating sold to district heating suppliers, the district heating tariff for households and institutions under special treatment, as well as the district heating supply subsidies. During the preparatory process, the Office carried out cost revision including site visits to several licensees with significant generation capacities.

The FIO and the associating feed-in tariff of electricity produced by cogenerators were ceased on 1 July 2011. The Government decided on the introduction of a heat-side support scheme, which was launched on 1 October 2011. In the case of cogeneration, the electricity is sold at market price, whilst heat is sold at a reasonable regulated price containing justified, effectively high costs.

However, due to higher regulated district heating generation price, district heating suppliers may require subsidy. The level of subsidy is set by the Minister of energy policy in the above mentioned decree - based on the proposal of the Office.

The Office is responsible for the monthly – practically continuous – revision of the subsidy claims and payments to the district heating suppliers, and if it finds any infringement, the Office takes the necessary steps and makes decision. The Office initiated 32 administrative proceedings and issued resolutions on its decisions of repayment or the continuation of payments.

The Office organised a consultation on the applicability of the obligatory accounting unbundling regulation of district heating suppliers and district heating generators effective from 1 January 2012 – which aims that the costs of district heating supply must be kept on separate account - for the accounting experts in the district heating industry. Based on the success of the recommendation on gas purchase, a new recommendation is in progress on the application of accounting unbundling regulations in practice. During 2012, the Office carried out 15 audits of licensees in order to investigate how licensees comply with accounting unbundling rules set in law in reality.

Through the consultations with the district heating industry, the Office received information on whether the detailed regulation on the application of earnings cap should be laid down in ministerial decree. Therefore, the Office made a proposal to the Minister on the application of the profit cap regulation, proposing that in order to encourage investments, developments and to maintain security of supply, it would be necessary to define some exceptions from the profit cap rule set in price regulation.

The Office prepared the 10% price cut in district heating prices in December 2012. As a result, the ministerial decrees mentioned above were modified with new tariffs effective from 1 January 2013. The Office also prepared the proposal on the modification of Ministerial Decree No. 51/2011. (IX. 30.) NFM on district heat supply support on time.

The Office participated in the preparation of district heating price methodology, which resulted in a transparent methodology of price setting governed by legislation. In order to promote the dissemination of the use of renewable sources in district heating and encourage cogeneration investments, the Office proposed to use differentiated rate of return indicators, which came into force on 1 November 2012 set in ministerial decree.

The Office elaborated its No. 1/2012 recommendation on gas purchase to district heating suppliers and generators, which was successfully applied by the district heating industry. This recommendation is a significant achievement, as it increases the comparability and transparency of gas prices, it promotes that price regulation is based on uniform parameters, as well as it encourages the district heating sector to reduce its high energy purchase costs.

## Water utilities

Effective from January 2012, Water Utility Supply Act has modified Act LXXXVII of 1990 on the setting of prices, and terminated the administrative price setting right of local governments and of the minister of water management. Due to the change of competences, it was necessary to also modify Government Decree 212/2010. (VII. 1.), therefore the supervision of water utility service was defined on policy level as the responsibility and competence of the minister of national development, effective from 27 June 2012.

Water Utility Act has fixed the prices by practically conserving the prices applied by the individual water utility suppliers on 31 December 2011 until 31 December 2013, which therefore could not be increased by the candidates for taking over the service.

The Office has to send the proposal on the charges to be applied to the minister of national development for the first time until 15 September 2013 and then until 15 October each year. That

means the regulation of the charges applied by the water utility service provider starts in 2013, but the defined charges are effective from 2014. However, the Office has already started elaborating the methodology and concept of price regulation in order to execute the task.

In addition to that, price regulation activity of the Office in 2012 mainly consisted of the consideration of the requests on applying for the alternative charges submitted by the individual water utility suppliers.

With regard to the water utility suppliers, in 2012 there were 16 requests on alternative charges received by the Office. One of these cases was closed with a legally binding resolution (with the approval of the Office), in 10 cases the Office called for the completion of documents or the clarification of the state of affairs, and 5 were shifted to 2013. In 9 of the 16 requests, the suppliers requested the application of alternative prices because of investments realized from EU support, in one case because of the introduction of a new water utility supply not provided before in the settlement, in 6 cases with reference to inflation and increased costs (financial transaction duty, public utility tax, etc.). The number of settlements concerned by the requests was close to 200.

The Office also started its price supervision activity using the data supply of the water utility suppliers. The subject of the first investigation was the compliance of the water utility suppliers with the obligatory provisions defined by Water Utility Supply Act.

After the price supervision – if a water utility supplier has breached the legal provisions – the Office issues a resolution prohibiting the application of illegal supply charge, and orders the refunding of the additional revenues to the customers.

In accordance with the provisions of Water Utility Act, in 2012 the Office established a department – in line with the organizational structure of the Office – responsible for the supervision and regulation of the water utility sector, which started its administrative activities according to the new regulation.

## Waste

The tasks of the Office are further extended by Waste Act coming into force in January 2013. The preparation for the task was already started in 2012. In relation to the administrative price regulation of utility charges for waste management, the Office participated in the preparation of several decrees concerning the enforcement of Waste Act.

Some waste management utility suppliers had already contacted the Office before the Act came into force. In 2012, there were 7 requests received by Office on the approval of public service charges higher than the level set in Waste Act coming into force on 1 January 2013 – for a transitional period.

## Price setting

### Electricity

#### ***System use charges***

The charges for using the electricity system shall be determined by the Office in resolution, according to Section (2) of Article 140 of Electricity Act (effective from 1 July 2011).

The sum of the transmission system operation charge and the charge for ancillary services increased by 16.3%, from 1.909 HUF/kWh in 2011 to 2.221 HUF/kWh in 2012. This increase was the result of four factors:

- the inflation index forecasted by Hungarian National Bank for 2012 (almost 3% total price increase impact);

- the exclusion of price decreasing elements present in the 2011 prices (reimbursement of the provision of MVM Trade Zrt. and remainder of the stranded costs) with a total sum of 5.5 bn HUF (with a 13.8% price increase impact);
- the cost increase from 2011 to 2012 due to the transmission network loss and increased cost of ancillary services (slight price increase effect);
- incorporation of the correction on the basis of the difference between the planned and actual figures used in the 2010 prices (slight price decreasing effect, more or less offsetting the price increase effect indicated in the previous section).

The transmission charges increased in average by 6.5% from 2011 to 2012, with a possible distribution from 4.8% to 7% at the different voltage levels. The increase of charge was partially justified by the indexation applied for fixed type costs – related to inflation – and to a larger extent by the recognized purchase cost increase of the transmission network electricity loss.

The effect of the increase of transmission system operation, ancillary service, and distribution charges was insignificant on end user prices, however, the increase of charges was absolutely necessary for the maintenance of the level of supply.

In 2012, the fourth price regulation cycle of electricity system use (2009-2012) ended, and a new price regulation cycle started (2013-2016). Accordingly, by the end of May 2012 the Office made its proposal for the framework rules of the new cycle.<sup>9</sup>

In preparation of the starting prices of the 2013-2016 price regulation period, the Office performed a comprehensive cost review at the distribution system operator and also at the distributors in 2012. The basis of the review was the cost and quantity data from 2011. The justification review of the actual costs included the control of the price and cost levels of the services purchased from the affiliated firms of the mentioned licensees (settlement prices), and also covered the comparative analysis of the activities of the distributors.

The Office issued its resolution on setting the electricity system use charges for 2013 in accordance with the framework defined by the relevant decree<sup>10</sup>, starting from the results of the cost review, and also taking into account of the government decision on a 10% decrease of the end user prices from January<sup>11</sup>.

In accordance with the resolution, the sum of the transmission system operation charge and the charge for ancillary services decreased by 12.4% on 1 January 2013 (from 2.221 HUF/kWh in 2012 to 1.945 HUF/kWh). This decrease was a result of the following factors:

- significantly higher expected amount of the revenue components (and among these, primarily the cross-border capacity auction revenues) included in the 2013 prices compared to the previous year (instead of 6 billion HUF, 19 billion HUF: 15.3%: price decrease impact);
- compared to the level acknowledged in the 2012 prices, a decreased sum of the operational costs, depreciation, and capital cost approved as justified costs during the cost-review (4.3% price decrease impact);
- almost 1.2 billion HUF additional costs taken into account for the compensation of the 2013 transmission network loss (1.4% price increase impact);
- costs acknowledged in the 2013 price as purchase cost of ancillary services, which is by 1.7 billion HUF higher than the previous year amount (2% price increase impact);

<sup>9</sup> Decree 60/2012. (XI. 8.) NKM on the framework of the electricity system use charges came into force on 9 November 2012.

<sup>10</sup> Decree 60/2012. (XI. 8.) NFM

<sup>11</sup> 1092/2012. HEO Decree

- decreased price reduction effect of the corrections from previous years (2% price increase impact);
- price increase effect of the decrease of the total amount of electricity used for the calculation of the price (almost 2%).

No significant variation could be observed during the year, which has three reasons that cannot be influenced, or can only partially influenced by the system operator. First, the biggest component decreasing the transmission – system operation charge, namely the annual revenue from cross-border capacity auctions is to a great extent variable; second, the cost of the contracted reserve capacities reflects the changing market circumstances; third, the positive net amount of the component decreasing the charge of the ancillary services, the balancing electricity can only be planned with great (equal to several billions of HUF) uncertainty. (The latter component basically depends on the precise scheduling of the market actors, i.e. of the balancing circles – provided that the pricing rules of the balancing electricity.)

Using the results of the cost review, the distribution charges decreased from 2012 to 2013 on average by 1.8%. The average of the system use charges by voltage levels varies from -13.3% to +14.1%.

## Natural gas

### *System use charges*

The Office made a resolution on 25 April 2012 and 31 July 2012 on the allocation of contracted capacities of natural gas transport according to the required supply of customers eligible for universal service and not eligible for universal service. Under regular price setting, resolutions on setting system use charges were issued with effect from 1 July 2012. Contracted capacity reductions were taken into account in transport charges, the effect of which was partly compensated by the profit cap, and the withdrawal of surcharges and premium deriving from auction fees. Although capacity charges and volume fee increased in given cases, the average price for transport projected to transported quantity did not changed significantly.

With regard to storage fees – similarly to previous years' practices – the costs of cushion gas were taken into account in storage fee from among 'costs calculated on the basis of separate methodology'. In addition, the costs of cushion gas not paid last year, the costs of excess mining fee associating with the more flexible operation of the storage based on the request on individual tariff increase and the costs of permanent stage-three watch service ordered by ORFK (the Police) were acknowledged in charges. As an effect of the above costs and profit reimbursement, there was an increase in volume fees and a decline in capacity charges – in the case of capacities contracted for the supply of both customers eligible for universal service and those not eligible for universal service.

In determining distribution charges, changes in allocated volumes and cost adjustment by inflation were taken into account. By the withdrawal of surcharge and (in the case of given companies) of profit cap, changes in prices could be minimized for sales categories affecting customers eligible for universal service, thus their prices remain the same or changed to a small extent relative to the previous year. Non-eligible customers experienced a more significant increase in charges due to the reduction of the allocated volume.

Connection charges were set effective from 1 July 2012, in the framework of which 11 resolutions were issued (one to the transport system operator and 10 to distribution licensee). Decree 79/2011. /XII.22/ NFM modified in 2012 remained unchanged in relation to transmission system operation licensee, however, in relation to distribution licensees the fix connection charge for connecting to distribution network constructed prior to 30 November 2006 has been excluded. The fix charge was

replaced by the connection charge to be applied in other cases based on calculations. In addition to this, the Office made a proposal on the significant restructuring of connection tariffs expected to result in the more efficient use of the existing infrastructureA.

As an extraordinary case, the Office set prices in December 2012 because of statutory provisions amended due to the 10% natural gas price cut. Dual system use ceased in relation to transport, charges effective from 1 January 2013 were determined similarly to charges applied earlier to customers non-eligible for universal service. Parallel to this, a reimbursement system has been introduced, which provides for lower charges through the universal service price to customers eligible for universal service. The average decrease resulted from the above measurements is 14%.

For storage and distribution, the rate of return in connection with the supply of customers eligible for universal service declined from 4.5% to 2.28%, since the rate of return and also charges remained unchanged with regard to customers non-eligible for universal service. With regard to universal service customers, average price for storage fell by 8.5 %, while average price for distribution decreased by 6.74 %.

## Price control

### Electricity

#### *Price margin control*

The Office is obliged to examine the commercial price margin of electricity universal service providers as governed by decree up to 31 March of the year following the actual year.

Based on the examination performed in March 2013, the Office revealed that the annual average price margin calculated according to the provisions on price regulation based on fact data of 2012 exceeded the value specified in the decree in the case of all the four universal service providers. Key figures on the 2012 price margin of the given suppliers are shown in the table below.

Excess price margins derive primarily from the deviations from quantity and price estimations regarding FIO scheme. The resolutions issued by the Office on the excess price margin of given suppliers, on the reimbursable amounts and the way of reimbursement<sup>12</sup> provide the inclusion of the above items in the following year's universal service prices.

**Table 16 Results of examination of margins of universal service providers for 2012**

Universal service provider	USP's excess margin (excl. VAT), HUF/kWh	USP's excess margin to be paid to customers (excl. VAT), million HUF	Average sum per customer of average consumption (excl. VAT), HUF/month
ÉMÁSZ Nyrt.	0.12	177	appr. 25
E.ON Energiaszolgáltató Kft.	0.17	897	appr. 35
ELMŰ Nyrt.	0.32	1 128	appr. 65
EDF DÉMÁSZ Zrt.	0.47	775	appr. 95

Source: MEKH

The Office took into account margin differences (surpluses) expected for 2012 based on estimated data available in Fall 2012 as a reducing item in its proposal on universal service prices for 2013.

<sup>12</sup> Resolutions 114-117/2013.



### ***Price regulatory incentive for quality of service in distribution***

Service quality control of distributors is conducted by the Office. As the Decree 64/2011. (XI. 30.) NFM on the determination and application of electricity system use charges declares, the distributor if any of the supply quality indices determined in the resolution issued by the Office shows a significant fall, the distributor failing to achieve the required standard is obliged to grant a discount from its distribution charges in the second half of the following year. This provision serves as a 'price side element' of incentives for service quality.

The Office evaluated the 2011 quality of supply indices by May 2012 after collecting and processing data. (Detailed information on the tracking of quality of supply is available in Chapter Consumer Protection.)



In the course of cost review for distributors, took into account, how distributors fulfilled the expected level of supply quality indices, furthermore relative values of supply quality achieved by the given distributors. Based on this, when determining the acknowledged justified costs (in the course of comparative analysis of partial activities of technical nature), the Office reduced the measure of the reduction of costs to be acknowledged in the case of EDF DÉMÁSZ, ELMŰ and ÉMÁSZ.

Since the supply quality indices in 2011 did not justify this measure, similar price discount was not made in the second half of 2012.

### **Natural gas**

The Office has to prepare its proposal quarterly on the amendment to the Decree 19/2010. (XII. 3.) NFM on the volume and price of the natural gas source and domestically produced natural gas offered for sale to universal service providers and the circle of those eligible for buying and those obliged to sell natural gas at offered price (hereinafter: Offer price decree). The Offer price decree includes the price of natural gas source offered for sale to universal service providers, the volume sold in the framework of the offer with regard to contracts provided in Article 141/A of Act XL of 2008 on natural gas supply, the volume of domesticall produced natural gas required for the supply

of customers purchasing gas under universal service and the price of the domestically produced natural gas up to the measure of the volume required for the supply of universal service customers.

As included in the Offer price decree, if fact data show that a universal service provider has losses or profit in the given quarter from the natural gas sources used for universal service based on the difference of charges included in the decree and universal service prices, the justified measure of this loss or profit will be taken into account in price regulation until the end of the quarter following the actual quarter.

These tasks were fully completed by the Office also in 2012.

### **District heating**

As included in Section (3) of Article 5 of Decree 50/2011 (IX. 30) NFM on setting prices of district heating sold to district heating suppliers, prices of district heating supply to household customers and institutions under special treatment, profit cap of district heating suppliers are supervised by the Office. The first inspection has to be made for 2012, the results of which expected to be published in 2013.



## **VII. Operation of the Office, institutional relations and information**

### **Institutional and international relations**

Acting in its sphere of responsibilities and competence, the Office cooperates with its counterparts in the interest of successful and efficient regulatory work.

On the field of consumer protection, the Office shares its competence with NFH. The two authorities concluded a partnership agreement, in the framework of which they will have monthly meetings on professional issues. Similarly to the practise of previous years, the Office maintains a regular contact with other bodies of public administration including the Office of the Ombudsmen, Hungarian National Authority for Data Protection and Freedom of Information, Hungarian Trade Licensing Office and Hungarian Competition Authority, in particular. In 2012, the Office conducted negotiations with the Ministry supervising the Office and the various parliamentary committees in consumer protection issues several times.

In addition to consumer protection issues, the Office signed partnership agreements both with the Hungarian Competition Authority and Hungarian Financial Supervisory Authority (PSZÁF) in order to cooperate in market analyses regarding competition issues, as well as to investigate energy market activities of financial market players and detect market abuses, respectively. In the framework of its supervisory activity, the Office signed a partnership agreement also with Nemzeti Adó- és Vámhivatal (National Tax and Customers Administration of Hungary).

Beside public administration bodies, the Office was having active relations with non-governmental consumer protection organisations, as well (including Magyar Energiafogyasztók Szövetsége (Association of Energy Customers), Országos Fogyasztóvédelmi Egyesület (National Association for Consumer Protection in Hungary) and Ipari Energiafogyasztók Fóruma (Forum for Industrial Energy Customers)). In the framework of this cooperation, NGOs made proposals on rules and regulations, modifications of Business Conduct Rules and regulatory concepts of supply quality, and participated in assessments of data supplies submitted in accordance with given resolutions on quality regulation.

The Office has close ties with international regulatory and other energy organisations. The goal of collaboration is to represent Hungarian interests in international institutions – in order to promote Hungarian efforts consonant with European legislation process and so help the process of European legislation – on the one hand, and to utilize the acquired international experience within the Office, on the other hand.

The Office played an active role both in international organisations and through bilateral cooperations even in 2012.

National energy regulators of Member States in the European Union operate two cooperation organisations:

The Agency for the Cooperation of Energy Regulators – ACER is an official body of the EU (established by Regulation (EC) No 713/2009), with the function to develop – among others – Framework Guidelines assisting the establishment of the single internal European energy market envisaged for 2014.

The Council of European Energy Regulators – CEER is organised on a voluntary basis with the aim to exchange regulatory experiences and to develop common European regulatory positions in energy issues.

The Office participates actively in the work of both organisations, taking part in drawing up of legal provisions, position papers, publications in the pipeline, or assisting the common work by comments. In addition to the above organisations, the Office is an active member of another voluntary organisation, the Energy Regulators Regional Association - ERRA. This organisation encompasses the regulators of several Member States of the European Union and of some third countries (primarily in Eastern Europe and Asia), with an objective to exchange experiences and provide coordinated preparations for new regulatory challenges, including the training of the expert staff.

In addition to the direct participation of the Office in international organisation, it also helped Nemzeti Fejlesztési Minisztérium (NFM, Ministry of National Development) by its professional support in European legislation, and by preparing discussions and presentations founding the issues of CEE Forum chaired by NFM from the second half of 2012 and by its active participation in the Forum in October. The Office backed the Hungarian position represented in the course of the Council debate on the new draft regulation on infrastructure with professional remarks and proposals. The Office participated also in the work of regional groups (NSI-East Gas, NSI-East Electricity) brought into being by the European Commission and in charge to select projects of common interest (PCI).

Colleagues of the Office played an active role in the harmonisation of rules and regulations in order to facilitate collaboration of member states of European electricity and natural gas regions. In the framework of this, the Office gave an emphasised support to the coupling of Czech, Slovakian and Hungarian day-ahead electricity markets so enhancing security of supply, price stability and liquidity of the coupled national markets. As a result of successful preparatory works, the trade on the the coupled Czech, Slovakian and Hungarian electricity day-ahead markets started on 11 September 2012 with the first deliveries on 12 September 2012. With market coupling, the traders who are registered to any of the three coupled markets may pair their day-ahead– up to the measure of the available cross-border transmission capacity – in the coupled trading system. The succesful start of Czech, Slovakian and Hungarian market coupling opens the door to extend cooperation. This market integration is a remarkable step towards the single European electricity market and a milestone towards the coupling of our region with Central West European electricity markets.

In 2012, the Office carried on preparation and discussions with the affected actors of the Hungarian market about the European energy market integration. The goal of fora organised by the Office is to introduce to actors of the Hungarian market and public sector as well as industry experts the scheme and process of the new European obligatory legislation (Framework Guidelines, Network Codes) by highlighting the points where Hungarian interests may be enforced, and to discuss the expected operation of single European target modells largely established for given partial markets and procedures as well as the required (administrative and market) steps. There were three market integration fora in 2012 with the following topics:

- Draft NetworkCode for Requirements for Grid Connection applicable to all Generators
- Draft Gas Balancing Network Code
- implementation of REMIT

The Office resumed its work in the European integration platform on the Concerted Action on the Renewable Energy Sources Directive (hereinafter CA-RES). Within this project, the Office played an active role in the workshop in charge of the elaboration of uniform energy statistical methodology and guarantees of origin, and in the one established for monitoring renewable energy targets.

In 2012, the Office had several bilateral meetings with international energy regulators, among others from China, the United States, Japan and Turkey, in order to discuss the most relevant regulatory issues and share experience.

The Office participated in a Twinning program on the reinforcement of natural gas regulatory and legal capacities for the National Energy Regulatory Commission of Ukraine (NERC), the second phase of which closed in 2012. The 3rd component of the program was led and coordinated by the accredited experts of the Office in the topic of 'Methodology of connection charge calculations'. Furthermore, the Office played an active role also in the 4th component led by the Italian regulator in the issue of 'Pricing'.

## **Information and statistics**

Authetical, correct, understandable and quick information supply is a priority task for the Office. The Office regularly discloses statistical data in order to provide for the transparent operation of the sectors falling under its competence, and provides information to the Government and various international organisations. In 2012, the Office launched an energy awareness campaign under the name 'Save the Earth's energy'. The activities, resolutions of public interests, information of the Office and the most important events of the fixed line energy sector could be tracked on the Office's homepage at [www.eh.gov.hu](http://www.eh.gov.hu), which was renewed in February 2012.

### **Statistical activity**

Within its sphere of competence, the Office is charged with given statistical tasks. Since 1 January 2012, the Office has been responsible for operating the complete national energy statistical system (following the amendment of Government Decree 288/2009 (XII.15) on data collection and data transmission of the Országos Statisztikai Adatgyűjtési Program (OSAP, National Statistical Data Collection Program)). The energy statistical system that had been operated by the Energia Központ Nonprofit Kft. (Energy Center Nonprofit Ltd.) was transferred to the Office, including nearly 5700 data supplier and more than 150 new – weekly, monthly, quarterly and yearly – data supply obligations. Following the transfer, data supplies and data sheets of OSAP – primarily in order to comply with the tracking obligation of the European regulation on renewable energy consumption – has been significantly extended. In addition, natural gas producers, biofuel producers and traders have been involved in the OSAP data collection.

In order to comply with its responsibilities governed by Water Utility Supply Act, the Office mapped the circle of domestic water utility suppliers and their fields of activity, and started collecting data on their activities in 2012. In 2012, the Office called the víziközmű suppliers for data supply, and registered the received data in a uniform database.

The Office prepared regular or individual data supplies for both Hungarian counterparts and international organisations. Similarly to the practice of previous years, the Office provided data to the Ministry of National Development, Ministry of Rural Development, Ministry of Public Administration and Justice, the Office of the Hungarian National Assembly, National Tax and Customers Administration of Hungary, Hungarian Central Statistical Office, Hungarian Meteorological Service (OMSZ) and VÁTI Hungarian Regional Development and Urbanistical Nonprofit Ltd.

Regarding its international obligations, the Office provided regular or ad hoc data supply to the various bodies of the European Union, the CEER, the European Commission and EUROSTAT and several international organisations like IEA, ACER, ERRA, International Regulation Network (IERN) and OECD.

The Office collected and processed the data supplies required to complete its tasks, consisting of technical-economic information submitted by nearly 750 licensees in compliance with resolutions also in 2012. This all meant the reception, verification and registration of more than 35000 data sheets submitted in electronic format on the data reception interface named Energy Information Data Store found on the website of the Office. Since both data and the suppliers of data fluctuate constantly, the unit issued 425 new or modified resolutions (including 153 on ad hoc data supply) in 2012 in order to accommodate official price preparation activities, to comply with obligations to provide information and supply data. Furthermore, the Office issued 10 resolutions to impose penalty and to require data supplement to missing data supply.

Following the practice of previous years, the Office published several general and specific energy statistical publications:

- Monthly reports on the operation of energy sector regulated by the Office
- Reviewed monthly and quarterly fast reports
- the Government Memorandum and Activity Report of 2012 on the activities of the Office,
- Statistical Yearbook of Fixed Line Energy Carriers (VEZESTÉK) concerning the electricity, natural gas and district heating industry
- “Statistical Data of the Hungarian Electricity System for the year 2010” prepared in cooperation with the Hungarian Electricity Industry Transmission System Operator Zrt.

## Annex

### Statutory provisions related to the activity of Hungarian Energy and Public Utility Regulatory Authority:

Act LXXXVII of 1990	on setting prices
Act III of 1993	on social administration and social benefits
Act XLVI of 1993	on statistics
Act XLVIII of 1993	on mining
Act CLV of 1997	on consumer protection
Act LXXXVIII of 2003	on energy tax
Act CXXVII of 2003	on excise tax and laying down special rules on marketing excise products
Act CXL of 2004	on general rules of administrative proceedings and services
Act XV of 1995	on trade of emission allowance units of greenhouse gases
Act XVIII of 2005	on district heating supply
Act XXVI of 2006	on strategic stockpiling of natural gas
Act LXXXVI of 2007	on electricity
Act XL of 2008	on natural gas supply
Act XLVII of 2008	prohibiting unfair commercial practices against customers
Act LXVII of 2008	on boosting the competitiveness of district heating supply
Act LXX of 2008	on certain issues related to electric power
Act XLIII of 2010	on the central state administration bodies and the legal status of members of Government and Secretaries of State
Act CXII of 2011	on the right of informational self-determination and the freedom of information
Act CXCV of 2011	on state finance
Act CXCIX of 2011	on public officials
Act CCIX of 2011	on water utility supply
Act I of 2012	on the Labor Code
Act CLXVIII of 2012	on the tax of public utility lines
Act CLXXXV of 2012	on waste
Govt Decree 170/1993. (XII. 3.)	on the enforcement of Act XLVI of 1993 on statistics
Govt Decree 157/2005. (VIII. 15.)	on the enforcement of Act XLVIII of 1995 on district heating supply
Govt Decree 225/2007. (VIII. 31.)	on the National Consumer Protection Authority
Govt Decree 273/2007. (X. 19.)	on the enforcement of certain provisions of Act LXXXVI of 2007 on electricity
Govt Decree 278/2007. (X. 20.)	on the detailed rules of determining and managing the support for the restructuring of coal industry

Govt Decree 285/2007. (X. 29.)	on measures to be taken in the case of severe disturbances in the electricity system and in emergency situation of electric power supply
Govt Decree 289/2007. (X. 31.)	on the social support to household pipelined natural gas consumption and district heating consumption
Govt Decree 382/2007. (XII. 23.)	a villamosenergia-ipari építésügyi hatósági engedélyezési eljárásokról
Govt Decree 389/2007. (XII. 23.)	on the feed-in obligation and feed-in price of the electricity produced from renewable energy or waste, and on the electricity co-generated with heat
Govt Decree 19/2009. (I. 30.)	on the enforcement of Act XL of 2008 on natural gas supply
Govt Decree 76/2009. (IV. 8.)	on the public proceedings in spatial planning
Govt Decree 288/2009. (XII. 15.)	on data collection and data transmission of the Országos Statisztikai Adatgyűjtési Program (National Statistical Data Collection Program)
Govt Decree 48/2010. (II. 26.)	on the procedure to be applied in a situation when the operation of natural gas trader is isolated and natural gas supply of users is jeopardized
Govt Decree 313/2012. (XI. 8.)	on Építésügyi Dokumentációs és Információs Központ (Construction Documentation and Information Center) and Országos Építésügyi Nyilvántartás (Registry of Construction)
Decree 2003. (XII. 16.) GKM	on the order of data supply from given undertakings in natural gas sector
Decree 91/2007. (XI. 20.) GKM	on the rate of administration service fees for the Hungarian Energy Office and laying down the rules of paying administration services and supervision fees
Decree 109/2007. (XII. 23.) GKM	on the allocation of electricity subject to feed-in obligation to the transmission system operator and on the method of determining prices applied in allocation
Decree 110/2007. (XII. 23.) GKM	on the calculation method to determine the amount of electricity and useful heat co-generated by high efficiency effective thermal energy
Decree 116/2007. (XII. 29.) GKM	on discounts on electricity purchases available in relation to present or past employment in the electricity sector
Decree 61/2009. (XII. 14.) IRM	on drawing up of rules of law
Decree 6/2008. (VI. 18.) KHEM	on certain data to be supplied in relation to control, operation and use of electricity system
Decree 17/2008. (VIII. 1.) KHEM	on the circle and charges for services to be provided upon the request of customers by electricity distribution network licensees and universal service providers for an extra charge
Decree 27/2009. (VI. 25.) KHEM	on the detailed rules for reimbursement of deficit of public utility wholesale licensee as specified in Act XLII of 2003 on natural gas supply
Decree 28/2009. (VI. 25.) KHEM	on determining tariffs of natural gas universal service
Decree 29/2009. (VI. 25.) KHEM	on pricing mechanism related to universal service on natural gas market

Decree 31/2009. (VI. 25.) KHEM	on determining charges for natural gas system use
Decree 33/2009. (VI. 30.) KHEM	on the terms of tender called for the establishment of wind power plant capacity, minimum requirements of the tender and the procedural rules of tender
Decree 36/2009. (VII. 22.) KHEM	on the aspects to be taken into account in determining connection charges of district heating supply and the charges for household district heating supply as well as prices applied in the agreements between heat energy district heat generator and district heating supplier and the circle of data to be submitted in the procedure conducted by the Hungarian Energy Office
Decree 31/2010. (IV. 15.) KHEM	on the contents of bill to be applied by electricity and natural gas universal service providers
Decree 19/2010. (XII. 3.) NFM	on natural gas sources offered for sale to universal service providers and the quality and price of domestic natural gas as well as the circle of those entitled to and obliged for the use of this natural gas
Decree 4/2011. (I. 31.) NFM	on price setting of electricity universal service
Decree 50/2011. (IX. 30.) NFM	on fixing heat prices sold to district heating suppliers, household consumers and institutions under special treatment
Decree 51/2011. (IX. 30.) NFM	on the support for district heating supply
Decree 64/2011. (XI. 30.) NFM	on the rules of determination and application of electricity system use charges
Decree 76/2011. (XII. 21.) NFM	on financial and technical conditions of connection to public purpose electricity network
Decree 1/2012. (I. 20.) NFM	on the calculation method of share of energy generated from renewables
Decree 36/2012. (VI. 8.) NFM	on the detailed rules and given items of the use of sources spent on the priority issues of Environment and Energy Operational Programme
Decree 60/2012. (XI. 8.) NFM	on the price regulatory frames of electricity system use
Decree 78/2012. (XII. 22.) NFM	on the amendments to certain ministerial decrees in association with price regulation of energy issue
Govt Decree 1586/2012. (XII. 15.)	on the household power, natural gas and district heating to be paid by final customers



## **EU Directives and Regulations**

**Directive 2004/8/EC of the European Parliament and of the Council of 11 February 2004** on the promotion of cogeneration based on a useful heat demand in the internal energy market and amending Directive 92/42/EEC

**Directive 2005/89/EC of the European Parliament and of the Council of 18 January 2006** concerning measures to safeguard security of electricity supply and infrastructure investment

**Directive 2006/32/EC of the European Parliament and of the Council of 5 April 2006** on energy end-use efficiency and energy services and repealing Council Directive 93/76/EEC

**Directive 2008/92/EC of the European Parliament and of the Council of 22 October 2008** concerning a Community procedure to improve the transparency of gas and electricity prices charged to industrial end-users

**Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009** on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC

**Directive 2009/29/EC of the European Parliament and of the Council of 23 April 2009** amending Directive 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading scheme of the Community

**Directive 2009/31/EC of the European Parliament and of the Council of 23 April 2009** on the geological storage of carbon dioxide and amending Council Directive 85/337/EEC, European Parliament and Council Directives 2000/60/EC, 2001/80/EC, 2004/35/EC, 2006/12/EC, 2008/1/EC and Regulation (EC) No 1013/2006

**Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009** concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC

**Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009** concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC

**Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012** on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC

**Regulation (EC) No 713/2009 of the European Parliament and of the Council of 13 July 2009** establishing an Agency for the Cooperation of Energy Regulators

**Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009** on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003

**Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009** on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005

**Commission Regulation (EU) No 774/2010 of 2 September 2010** on laying down guidelines relating to inter-transmission system operator compensation and a common regulatory approach to transmission charging

**Regulation (EU) No 994/2010 of the European Parliament and of the Council of 20 October 2010** concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC

**Regulation (EU) No 1227/2011 of the European Parliament and of the Council** on wholesale energy market integrity and transparency (REMIT)

**Commission Decision of 19 November 2008** establishing detailed guidelines for the implementation and application of Annex II to Directive 2004/8/EC of European Parliament and of the Council