

# Hungarian Energy Office



## Hungarian Energy Office Annual report to the European Commission

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# Table of Contents

- Summary ..... 4
- 1. Regulation and operation of the electricity market ..... 11
  - 1.1 Regulation ..... 11
    - Licensing and control* ..... 11
    - Unbundling of operations* ..... 15
  - 1.2 Competition ..... 16
    - Generator and trader markets* ..... 17
    - Market events and regulatory changes* ..... 21
    - Key features of the retail market* ..... 22
    - Measures to tackle abuse of market dominance* ..... 24
  - 1.3 Security of supply ..... 25
    - Development of the transmission network* ..... 26
  - 1.4 Price preparation, pricing ..... 26
    - Pricing framework for universal tariff rates* ..... 26
    - Margin control* ..... 27
    - Price change requests and price changes of universal services* ..... 27
    - System charges* ..... 28
    - Pricing incentive of distribution service quality* ..... 30
    - Changes in the full tariff rates of users supplied under the universal services* ..... 31
    - The case of power covered by feed-in obligation* ..... 31
  - 1.5 Public service obligation and customer protection ..... 32
    - Approval of Codes* ..... 32
    - Service quality* ..... 32
    - Control inspections* ..... 35
    - User complaints* ..... 36
- 2. Regulation and operation of the gas market ..... 37
  - 2.1 Regulation ..... 37
    - Licensing* ..... 37
    - Unbundling of operations* ..... 39
  - 2.2 Competition ..... 40
    - Wholesale market* ..... 40
    - Retail market* ..... 41
  - 2.3 Security of supply ..... 41
    - Natural gas transmission* ..... 42
    - Strategic storage of natural gas* ..... 42
    - Commercial natural gas storage* ..... 43
    - Specification of the gas limitation sequence* ..... 43
  - 2.4 Price preparation, pricing ..... 43
    - Universal tariff rates* ..... 44
    - Offer price* ..... 44
    - Natural gas price formula* ..... 45
    - System charges* ..... 46
  - 2.5 Public service obligation and customer protection ..... 48

<i>Approval of Codes</i> .....	48
<i>Service quality</i> .....	48
<i>Control inspections</i> .....	52
<i>User complaints</i> .....	52
3. Regulation of the district heating sector.....	54
3.1 Regulation .....	54
<i>Licensing</i> .....	54
3.2 Competition.....	55
3.3 Security of supply, public service obligation and customer protection .....	55
3.4 Price preparation, pricing .....	56
4. Energy saving, environmental protection.....	57
4.1 Energy saving .....	57
4.2 Environmental Protection.....	58
<i>Use of renewable energy resources</i> .....	58
<i>Greenhouse gas emission allowance trading scheme</i> .....	59
5. Institutional relations and providing information.....	61
5.1 Bilateral institutional relations .....	61
5.2 International relations.....	61
5.3 Council of Energy Interest Representation .....	62
5.4 Providing information on energy .....	62

## Summary

The provisions concerning the establishment, legal status, scope of authority and functions of the Hungarian Energy Office (hereinafter referred to as: the Office) and the regulation of fixed line energy markets have been laid down in Act No XLI of 1994 on gas supply, Act No XLVIII of 1994 on the generation, transmission and supply of electric power and Act No XVIII of 1998 on district heating services. These Acts, specific to the energy sector they cover, have been amended several times since then, taking into account the regulatory experiences gathered during the one and a half decades of operation.

Regulation of the fixed line energy markets and the functions of the Office are currently governed by Act No XVIII of 2005 on district heating services (hereinafter referred to as: District Heating Act), Act No XL of 2008 on natural gas supply (hereinafter referred to as: the Gas Supply Act), Act No LXXXVI of 2007 on electric power (hereinafter referred to as: the Electricity Act), and by the respective Government Decrees and Ministerial Decrees issued pursuant to these Acts. The functions of the Office have been extended from 2009 by Act No LXVII of 2008 on boosting the competitiveness of district heating services (hereinafter referred to as the TVT).

The Office is a central public administration body with independent functions and authority. Pursuant to the provisions of Act No XLIII of 2010 on the central public administration bodies and the legal status of members of the Government and Secretaries of State the Office is a government agency, managed by the Government and supervised – pursuant to Decree of the Prime Minister No 5/2010. (XII. 23.) ME on the appointment of Ministers in charge of the government agencies – by the Minister of National Development (hereinafter referred to as the Minister).

From the time of its establishment, the main function of the Office was licensing and supervision of power companies in the lined transmission sector, consumer protection and the preparation of regulated prices for natural gas and electricity.

Following the full liberalisation of the natural gas and electric power markets, a substantial change occurred in the role and activities of the Office. In addition to regulating fixed transmission line licensees in the energy sector, pricing applications and consumer protection, a growing importance is given to supervision of the competitive market, promotion and preservation of fairness of competition, the enforcement thereof, and continuous monitoring of and changing or triggering changes when necessary on the competitive market environment.

Upon the full liberalisation of the market regulated prices of energy as a 'product' ceased to exist for those who are not entitled to universal service provision. System operation and transmission line usage in legal or natural monopoly and – since July 2010 – universal service provision continue to be subject to regulated pricing. Before July 2010 the requests for price increases by the universal service providers were evaluated by the Office in a resolution. Preparation of regulated prices is carried out by the Office. Since 1 July, 2009 the requests by district heating service providers to increase connection charges to district heating systems and district heating tariffs to households have been evaluated by the Office under the official procedure of state administration.

## **Regulation (licensing and price regulation) of fixed line energy markets**

Each segment of the fixed line energy markets was fully regulated from 1994 up to the end of 2002. Liberalisation of the electricity market started with effect of 1 January 2003 and that of the natural gas market with effect of 1 January 2004, with gradual opening of the markets. Initially large industrial customers, from July 2004 any non-household customer could step out onto the competitive electric power market. From 1 July 2007 retail customers can also purchase electricity and natural gas from traders or generators.<sup>1</sup>

### **Licensing**

In line with the provisions of the Electricity Act and the Gas Supply Act, the Office shall establish the conditions for conducting licensee and related operations in the license issued by the Office. The Office shall also monitor compliance with the requirements laid down in the said licenses and apply legal consequences as appropriate.

### ***Electricity market***

The detailed rules applicable for licensing electricity operations in various market situations are found in Articles 52 to 91 of Government Decree No 273/2007. (X. 19.) on the implementation of certain provisions of Act No LXXXVI of 2007 on electricity (hereinafter referred to as: VET Imp. Decree). Licensees are obliged to ensure continuous compliance with the rules. In addition to the general rules, the VET Imp. Decree contains special rules related to each operation subject to licensing. They define the list of documents to be attached to license applications, the assets applicant must have, furthermore they provide for the contents of each type of license and the mandatory ingredients of license applications. Tables containing in details the documents and data required for the submission of license applications are also included, thus facilitating the work of the applicants.

Up to the end of 2007 a so-called double model was in force on the electricity market, meaning that both the public utility and free market segments operated in parallel. From 2008 on the public utility market segment ceased to exist and was replaced by the competitive market model, where competition can only be limited in order to prevent abuse of monopoly situations and to protect helpless customers. The latter is embodied in the institution of the so-called universal service provision.

Electricity can be procured by users and traders and sold by generators under the conditions of free market. Since Summer 2010 electric power can be traded – at the time being only by next day delivery – on the Hungarian Power Exchange (HUPX). The noted exceptions include co-generated power and electricity generated with the use of renewable energy resources and not intended for sale on the free market. Such power shall be purchased by the transmission system operator (as the entity responsible for the FIO balance group) under the feed-in obligation scheme (hereinafter referred to as: FIO) at the mandatory purchase price provided for in the Electricity Act. Following this the transmission system operator would distribute such power among traders supplying end users, generators directly delivering to end users and end users directly purchasing power from abroad in proportion to the volumes of electric power sold (purchased from abroad) by them. As significant problems emerged with the operation of this system which caused substantial extra burden to end-users (for instance due to disproportionate advance payment invoices received from generators planning their production unrealistically or to the distorted supply data from traders), the Office proposed amendment of the rules in the scheme. Discussions on the amendment have drawn to a close in December 2010 and a Government Decree and a Decree developed by the Ministry of National Development (hereinafter referred to as: MND) were issued with effect from 1 January, 2011 as a result.

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<sup>1</sup> The applicable provision of the Electricity Act took effect on 1 January, 2008.

The European Commission concluded its investigation launched in 2005 during the Summer of 2008. The investigation was opened for suspected illegitimate state aids hidden in the Hungarian long term electric power generation and generator capacity booking agreements (hereinafter referred to as: LTA). In the decision closing the proceedings the European Commission ordered the early termination of all LTA-s and reimbursement of illegal state aids by the power plants concerned. Such LTA-s were concluded between seven power plants and the MVM (in its capacity as the exclusive public utility wholesale trader) in the period between 1995 and 2001 and – encompassing more than 60% of all Hungarian electric power generation – effectively prevented competition among generators.

The Parliament adopted Act No LXX of 2008 on certain issues related to electric power on 10 November 2008 (hereinafter referred to as: LTA Act), which provided for the termination of all LTA-s up to 31 December 2008 and the method of determination how reimbursement of illegal state aids should be completed. Pursuant to the authority conveyed by the Act Government Decree No 149/2010. (IV.29.) defined the methodology of calculations used to compute the actual amounts of illegal state subsidies to be reimbursed and a stranded costs compensation scheme due to the termination of the LTA-s. No recoverable aids could be established for any of the power plants and three power plants became eligible to the stranded costs compensation scheme. The methodology determined for calculating compensation amounts for stranded costs in accordance with provisions of the Decree and the figures computed accordingly were approved by the European Commission in its decision ‘State Aid N 691/2009 – Hungarian stranded costs compensation scheme’ dated 27 April 2010. The Office issued a decision on 7 May 2010 for the affected power plants with the subject ‘Establishment of the recoverable amounts of state aid provided under the Agreement’.

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

The detailed rules applicable for licensing are stipulated in Articles 124 to 130 of Gov. Decree No 19/2009 (I. 30.) on the implementation of the provisions of Act No XL on natural gas supply (hereinafter referred to as: GET Imp. Decree) and Annex No 5 thereof. Licensees are obliged to ensure continuous compliance with the rules and requirements.

Public utility supply was terminated on the natural gas market with effect from 30 June 2009 and the institution of the universal service provider was created on this market as well for the specific supply of small customers. Users eligible for universal service provision include household customers and any other customers in possession of a gas meter with a capacity of less than 20 m<sup>3</sup>/hour.

Full market liberalisation was implemented from 1 July 2009 gradually, over a two years transition period. In this transition period, eligibility for universal services was granted in addition to household customers to:

- customers holding a district heat generation license specified in a separate law (up to 30 June 2011) and
- customers possessing a gas meter with a capacity of between 20 m<sup>3</sup>/hours and 100 m<sup>3</sup>/hour (up to 30 June 2010).

### ***District heat generation and district heating services***

District heat generation and district heating service provision are activities subject to licensing; the installation of district heat generating facilities above a capacity limit of 5 MW thermal output requires a license. The powers of licensing were shared between local municipalities and the Office in 2010. Any district heat generator also producing electricity was covered by the

Office, while local governments issued licenses to thermal generators without electric power generation and to district heating service providers. The Office issued 20 resolutions in 2010 in relation to district heating licenses. Six of these dealt with district heat generation operating licenses, one with the issue of an establishment license, 8 modified existing permits and 5 were decisions related to approvals to mergers or obtaining control. Besides licensing the Office also provided official supervision to licensees.

## **Preparations for the adoption of smart metering**

According to Directives 2009/72/EC and 2009/73/EC Member States shall ensure the adoption of smart metering systems. However, the introduction of the so-called smart metering systems depends very much on the economic assessment of all costs and benefits incurred by the market operators, on the cost efficiency of each smart metering model, and the timing of their installation. Such assessment should be completed before 3 September 2012 in the electric sector on which basis the Government will decide upon the timing of adopting smart metering. The Government will also inform the Commission on this decision. Provided an assessment in favour of the impacts associated with the commissioning of smart metering systems is concluded, at least 80% of all customers need to be involved in smart metering before 2020.

Both the Electricity Act and the Gas Supply Act provide for the Government to stipulate in a Decree the rules governing the installation of electronic consumption meters at the users as specified in the directives of the European Parliament and of the Council on energy end-use efficiency and energy services. After consulting with the competent ministry the Office started preparations for the necessary Decree. In order to do this the Office – co-financed by the World Bank – commissioned an expert selected by a public procurement procedure to put down a study. Using the findings of this study and involving the affected parties the Office started the preparation of smart metering pilot projects and the related Government Decree.

## **Price preparation, pricing regulations**

### *Electricity*

According to the pricing arrangements of electric power supply, from 2008 on any major customer which is not a household or public institution may only procure electric power at a price reflecting the supply and demand of the market from competitive traders whom they chose and who undertook their servicing. (In 2010 4 major and approximately 20 lesser electricity traders were active). Small customers – provided they did not enter the free market – could draw electric power in 2010 under universal service provision, i.e. at officially controlled (regulated) prices.

Four applications to change (actually, to reduce) universal service tariffs were received by the Office in the first quarter of 2010, which were endorsed by the respective resolutions. After the resulting price drop in July, universal service provision prices have not changed in the second half of 2010.

Changes to power system charges were effectuated in line with the regulatory framework in effect for the 2009 to 2012 pricing cycle, taking into account eventually justified corrections.

The so-called feed-in tariff scheme is governed by Gov. Decree No 389/2007 (XII. 23.) on the feed-in obligation and feed-in tariff of electricity produced from renewable energy resources or from waste and electricity generated in co-generation facilities as the implementation of the provisions laid down in the Electricity Act. The generation of electric power sold under the feed-in tariff scheme was granted substantial aids in 2010 as a result of the officially set feed-in tariffs

which were higher than the 'market prices' and due to the feed-in obligation arrangements themselves.

### *Natural gas*

A new natural gas pricing cycle was started on 1 January 2010, and initial system charges and initial price margins applicable in universal service provision entered into force. The Office approved price change requests concerning universal services of natural gas in the first half year of 2010 and established the price of natural gas sources offered for sale by former public utility wholesale traders to universal service providers.

In June 2010, as a result of the amendment to the Gas Supply Act, the Office was charged an additional price preparation function of universal service tariffs for gas and of natural gas source offer price. In the second half of 2010 the Minister did not amend universal service tariffs.

The offer price of natural gas sources was amended by the Minister in a Decree on 4 December 2010 providing for the prices of sources offered by the former public utility wholesale trader and the price of natural gas extracted from national hydrocarbon fields put to production before 1 January 1998, and for the amount of natural gas to be transferred to the respective parties.

The natural gas storage fees are determined since 1 October 2010 by a formula built on the three component capacity booking ratios, providing a stronger incentive to companies to optimise their bookings in the storages.

As to the gas system charges, a decision was made to apply a double standard from 4 December 2010. Fees charged from customers eligible to universal services shall contain a return rate (yield factor) of 4.5%, while those charged from non-eligible customers would include 8.78% for transmission, 10.04% for storage and 8.29% for distribution.

Due to a decline in natural gas consumption from the 2009/2010 gas year on, a large volume of gas appeared on the natural gas market resulting in significantly gas prices on the spot market than those in long term import agreements. In relation to this, from 4 December 2010 the formula establishing the specific natural gas prices in the universal services shall include natural gas prices on the international spot market, market prices on the Rotterdam Endex TTF Gas futures and at the Baumgarten Central European Gas Hub with a weight factor of 40%.

### *District heating services*

Pursuant to the District Heating Act amended by the TVT, the Office provided price control functions in district heating tariffs of households since 1 July 2009. District heating service providers submitted requests to change district heating tariffs for 36 communities in 2010. Most requests were intended to increase charges. Resolutions of the Office were issued in 2010 for 34 cases and in 2011 January for 2 cases.

### **Consumer protection**

The Office managed 2233 issues concerning the protection of customers/consumers in 2010, representing a 19% growth compared to the number of issues a year earlier. Approximately 59% of all cases were direct consumer complaints, and an additional 19% accounted for complaints forwarded to the National Consumer Protection Authority to their respective jurisdiction. Forty-six per cent of all complaints received related to gas supply and 54% to power supply. Complaints were evaluated and necessary actions taken on a continuous basis. Nearly 43% of all



complaints on electricity licensees and 50% of complaints on natural gas licensees were found to be well grounded by the Office.

Due to an increased number of claims, in the course of complaints management the Office was able to conduct inspections only in the most critical fields. Licensees failing to comply with the quality requirements of customer services were fined by the Office on the basis of consumer protection considerations to HUF 55 million in 2010. According to the Decree in effect E.ON Észak-Dunántúli Áramhálózati Zrt. was obliged to reimburse 1% of system charges because the reliability requirements were not met.

Adapting to the practices in place in the electric sector, the system of the so called Guaranteed Services was adopted in 2010. This requires direct compensation from the licensee to the user in cases when the expected time lines are not met. In order to create this new pillar of regulation the Office issued 24 resolutions in 2010 related to Guaranteed Services. Based on the consolidated figures from 2010, licensees in the electricity sector paid a total amount of HUF 89 million to consumers for reasons not meeting Guaranteed Services in 2009.

Customer satisfaction surveys were conducted, findings assessed and action plans for corrective actions completed in 2010. Users continued to focus on voltage spread (ripples), outages, reception of failure reports and the time required for elimination of faults by distribution licensees. As to universal service provider licensees, low scores were given to complaints management, handling of failure reports and call centres from both residential and non-residential customer cohorts. Opinions on the transparency and comprehensibility of bills were clearly worse.

The Office maintained communication with public administration bodies having consumer protection functions and carried out its activities in coordination with them. Instead of personal technical support implemented in former years, in order to ensure smooth transition of the division of powers with the National Consumer Protection Authority the Office in 2010 maintained the opportunity for telephone call support as appropriate. Beside public administration bodies, the Office maintained constant contacts with civic consumer protection organisations as well.

## **Energy saving and renewable energy resources**

The Office contributed to the implementation of the energy saving and energy efficiency enhancement strategy of the Government. In their capacity as expert consultants, Office representatives participated in the work of the interdepartmental committee evaluating energy efficiency enhancement proposals, in the work of the committee evaluating the proposals of the Environment and Energy Operational Programme and in the preparatory works of tender announcements. The Office started to review the renewable incentive scheme and supported the development of the National Action Plan – intended to promote the use of renewables – by background materials and calculations.

## **International relations, energy information, publicity, disclosure**

Staff members of the Office contribute to the operation of various European Commission organisations, their technical committees, to the work of the Council of European Energy Regulators (hereinafter referred to as: CEER), of the European Regulators' Group for Electricity and Gas (hereinafter referred to as: ERGEG) – operating as a consultative body of the European Commission – and of the Energy Regulators' Regional Association (hereinafter referred to as: ERRA).

Obtaining from and processing of technical and financial data of more than 600 licensees required by the Office to fulfil its functions and data supply obligations to other authorities and international organisations were carried out on an ongoing basis.

According to his obligation provided for in the law, the President of the Office submitted to the Government the Office's Activity Report of 2010 on the activities of the previous year. The Office also prepared the National Report presenting the operation of the electricity and natural gas market to the European Union.

The Office continuously meets its data supply obligation to international organisations (EUROSTAT, International Energy Agency, etc.), and as part of this obligation the key figures of the Hungarian natural gas and electricity sector are provided to them.

The Annual Report of the Office presenting the previous year's activities and key technical and financial figures of the sector supervised by the Office was also published in 2010. Two additional publications were also issued:

- the Statistical Yearbook of Fixed Line Energy Carriers (VEZESTÉK), an extension of the former VESTÉK publication to include figures on natural gas and district heat and
- a publication presenting the statistical data of the Hungarian electricity system in collaboration with MAVIR.

The activity, public resolutions, publications of the Office and the key events concerning the energy sector can be continuously followed on the website [www.eh.gov.hu](http://www.eh.gov.hu).

### **Legal remedies to Office resolutions**

In 2010 the Office adopted 740 resolutions in addition to those published in consumer protection matters. Stakeholders filed a lawsuit in court with regard to 91 resolutions. Thirty one of these have come to an end, in 60 cases the proceedings are still in progress. Forty seven lawsuits were carried forward from previous years to 2010, 25 of which were concluded in 2010, and 22 cases are still in progress.

The Office passed a resolution in 1132 consumer protection issues in 2010, against which the clients brought the matter before the court of justice in 151 cases. Nine of these are ended and 142 cases were still in progress at the end of 2010. One hundred and ten cases were carried forward from previous years to 2010, 53 of these were terminated and 57 were still in progress at the end of 2010.

**Horváth Péter**

President

# 1. Regulation and operation of the electricity market

## 1.1 Regulation

### *Licensing and control*

In the field of electric power licensing and supervision the Office issued 369 resolutions to power companies in 2010, 25 of these were consolidated license for small power plants and 137 resolutions to establish the so-called FIO quota. Sixty five licenses were modified by resolution and 10 operations were terminated or suspended. The Office issued 42 new trading licenses, and passed 36 resolutions concerning codes of operation or the amendment thereof. Approval was granted to 5 transactions concerning company law and to 44 other issues, in five additional cases an investigation was instigated and five resolutions imposed a fine.

### Generator licenses

The Office issued 13 different licenses concerning power plants with a capacity of 50 MW or more. One of them was a generator operating license, 2 concerned capital decrease and endorsing the acquisition of control, respectively, the others amended or extended the terms of operating or establishment licenses.

### Licensing and feed-in obligation scheme of small power plants

In cases provided for by the Electricity Act a simplified licensing procedure should be conducted for small power plants of 0.5 MW and beyond. Licensing was carried out on an ongoing basis in 2010.

The volume of electric power to be taken over on a mandatory basis (hereinafter referred to as: FIO quota), the duration of the feed-in obligation, and the validity period of the operating license are specified by the Office. For this purpose the Office needs to take into consideration Hungary's international commitments on renewable power generation, the competitiveness of the power generated from renewable resources, the turnover rate of the project in question, the impact of the technology concerned on the balanced operation of the electricity system, the burden which can still be born by the consumers and the extent of other aids. The regulation also applies to co-generated power from 1 January 2008 on.

### Licensing wind power

The Office did not issue any license for wind power in 2010.

Decree No 33/2009 (VI. 30.) KHEM on the conditions for the announcement of tender to establish wind power capacities and minimum requirements of contents in such tenders as well as on the rules of procedure in tendering was published on 30 June 2009.

On 28 August 2009 the Office announced a tender for the right to install 410 MW wind power capacity with a deadline for submission on 1 March 2010. Sixty-eight entries were received for a total capacity of 1117.5 MW.

The Minister issued Decree No 1/2010 (VI.18) NFM amending Decree No 33/2009 (VI. 30.) KHEM on the conditions for the announcement of tender to establish wind power capacities and

minimum requirements of contents in such tenders as well as on the rules of procedure in tendering in June 2010. The amendment affected the purpose of the legal provision, evaluation criteria of tenders and the conditions related to declaring failure.

Pursuant to the above considerations the Office cancelled the tender on 15 July 2010.

### Control of power plants

In the course of the 2010 inspections the Office established that fuel stocks required by the law are available in most power plants and several generators possessed stocks in excess of the requirements. Maintenance – albeit on different principles – is conducted according to schedule, thus ensuring reliability and availability.

Generators usually have contracts in place to procure fuel for several years.

Environmental requirements are complied with: previously accomplished development projects and retrofits proved to be successful in meeting the stringent standards and no power plants had to be shut down for non-compliance.

In review of quality assurance it can be stated that all generators in excess of 50 MW installed capacity operate quality control measures. Quality control systems are reviewed and audited to accommodate changes. Some large power generators started to set up integrated quality assurance, environmental management, health and safety systems. Several sites operate integrated environmental management and quality assurance systems.

### Licensing and control of the transmission system operator

According to the provisions laid down in the Electricity Act, the special balance group to balance and account for electric power covered by the feed-in obligation scheme – the FIO balance group – was created on 1 January 2008 with the transmission system operator, MAVIR Zrt. as the responsible entity. Detailed rules of daily operation represented a considerable challenge to MAVIR Zrt., manifested among others in how to ensure liquidity and handle inaccurate generator schedules. In order to overcome these problems, the Office proposed the amendment of the current regulations (Gov. Decree No 389/2007 (XII. 23.) on the feed-in obligation and feed-in tariff of electricity produced from renewable energy resources or from waste and electricity generated in co-generation facilities, and Decree No 109/2007 (XII. 23.) GKM on the distribution of electricity subject to feed-in obligation to the transmission system operator and on the method of determining prices to be applied in the course of distribution) to the Ministry of Transportation, Telecommunication and Energy by sending the first draft of the normative text on 11 December 2009. The draft text was corrected in consultation with the Ministry during 2010 and the amendment was effectuated by Government Decree No 270/2010. (XII. 8.) and Decree No 20/2010. (XII. 8.) NFM with effect of 1 January, 2011. In addition, the regulations listed above were also amended by Government Decree No 369/2010. (XII. 31.) and Article 5 of Decree No 32/2010. (XII. 23.) NFM. These changes took effect also on 1 January 2011.

In order to allow for the transmission system operator to operate under the conditions as required from 3 March 2012 on, the Office commenced reviewing the necessary regulatory actions following the entering into force of Directive 2009/72/EC and Regulation 714/2009/EC.

In order to achieve transposition of Directives 2009/72/EC and 2009/28/EC at the level of law, the Office submitted a technical preparatory material on 2 August 2010 and the supplemented proposal following the negotiations on 7 September 2010 to MND.

The European Commission opened infringement procedure No 2009/2172 against 25 Member States including the Republic of Hungary over inappropriate implementation of Regulation (EC) No 1228/2003 on conditions for access to the network for cross-border exchanges in electricity and its Annex as amended by Decision 2006/770/EC.

Following the official notification from the Commission the Ministry of Foreign Affairs responded to the observations of the Commission by involving the technical authorities. A part of the emerging problems proved to be unjustified (such as weekly publication of cross border capacities). Yet, noting the call from the Commission, the requirements were complied with subsequently.

Compliance with a substantial part of the issues raised by the Commission will become current in the future, such as the application of the intra-daily congestion management methods, or the introduction of the joint coordinated congestion management method and the procedure to allocate cross border transmission capacities. At the same time there were also issues such as firmness of transmission capacities, which, albeit complied with, are not clear enough. In order to enhance transparency, MAVIR Zrt. made continuous efforts in 2009 and 2010 to disclose the data and information required by the Regulation and the Annex, and as a result formerly missing data are now fully available. As appropriate, MAVIR Zrt. would provide additional information with reference to the respective items in the relevant detailed rules.

Additionally, a part of the data related to the information required by certain sections of the guidance shall be published on the internationally developed joint data publication website ENTSOE.net (cross border transmission schedule particulars, cross border trading schedules and physical flows). Indeed, MAVIR Zrt. failed to publish prior information on scheduled outages on a daily basis and subsequent information on scheduled or non-scheduled shut down of power generation units above 100 MW. All these shortcomings have been corrected and completed and the data are available through the MAVIR Zrt. homepage.

### Licensing and control of distribution network companies

No new distribution licenses were issued by the Office in the course of 2010 and no reason emerged to modify the existing ones. No changes occurred in the organisation structure and operation of distribution companies in 2010.

### Licensing power traders and universal service providers

During the year 2010 a total of 27 power trading licenses were issued, 10 of them being a limited power trading license and four of them have not been fully evaluated in 2010. No application for universal service provision was received. Six trading licenses were withdrawn upon request from the licensees and three procedures have not been concluded in 2010. One of the reasons for withdrawal was that in addition to the Hungarian subsidiaries registered earlier on, the limited power trading license was obtained by the foreign owners for the parent companies and they only conducted wholesale trading anyway. Another typical reason was that they relocated abroad or discontinued altogether their operations due to the economic situation (recession, the levy of the extra tax).

### Licensing and operation of the organised electric power market

HUPX Magyar Szervezett Villamosenergia-piac Zrt. (in English: HUPX Hungarian Power Exchange Company Limited by Shares, HUPX Ltd) started commercial operation on 20 July 2010 with 10 members. By the end of the year the number of members grew to 22. Increase of turnover exceeded 10% in relation to the previous month in each month except November throughout the year (the growth rate in September was more than 40% compared to August

2010). The daily peak was reached on 16 December 2010 when it exceeded 6 540 MWh. Price trends on the HUPX faithfully follow the prices on surrounding power exchanges.

The Hungarian Power Exchange was admitted to the organisation of the European Power Exchanges (EUROPEX).

The Office issued an operating license to Power Exchange Central Europe a.s. based in Prague to operate on the organised electric power market on 30 July 2010.

## Allocation of cross border capacities and congestion management

### *Legal background*

Pursuant to item h) paragraph (2) Article 47 of the VET Imp. Decree, the functions specified in Regulation No (EC) 1228/2003 from 1 January 2008 are set forth in details by the Business Code.

For the purposes of implementing Article 3 of Regulation No (EC) 1228/2003 a transmission system operation fee of 0.25 HUF/kWh is payable for imports from countries which are not parties to the voluntary multilateral network usage contract concluded between the European transmission system operators (ITC). Commission Regulation (EU) No 774/2010 on laying down guidelines relating to inter-transmission system operator compensation obliges the European Network of Transmission System Operators for Electricity (ENTSO-E) from 2011 to develop and put in place a contract according to the Regulation.

### *Allocation of cross border capacities in 2010*

Since 2003 MAVIR Zrt. and other cooperating transmission system operators organise cross border capacity auctions at the border crossing points shared with the neighbouring countries. Compared to the results of auction 2009 and former years, results of 2010 show that market players had to see further decline in the available import capacities for deliveries from Slovakia to Hungary. Compared to earlier years, only 300 MW was allocated under a joint auction instead of the previous 400 MW. Transmission from Austria to Hungary changed from an announced base load capacity of 180 MW and peak capacity of 120 in 2009 to 120 MW base load and 120 MW peak capacities for 2010, respectively. Import grew from 150 MW to 200 MW from Romania to Hungary by the commissioning of the second cross border transmission line. Invariably no annual cross border capacities were advertised for transmission from Ukraine.

Relatively few changes were seen compared to 2009 in electricity export. A rearrangement was seen in transmissions from Hungary to Austria between base load and peak capacities: former 100 MW base load and 50 MW peak changed to 80 MW and 80 MW, respectively. Capacity needed for transmission to Slovakia grew from 400 MW to 500 MW.

The system of unilateral monthly and daily auctions was maintained at the Ukrainian-Hungarian border crossing. Auction rules changed at the Romanian-Hungarian and Croatian-Hungarian border crossings, where joint auctions were set up for all periods. According to the agreement, long term auctions – yearly and monthly for 2010 – are administered by the Romanian and Ukrainian partner TSO and daily auctions by MAVIR Zrt., respectively.

According to the Business Code approved by the Office, capacities were allocated in a similar arrangement under a joint auction in December 2010 at the Serbian-Hungarian border crossing for 2011 (i.e. long term auctions are administered by the Serbian and daily auctions by the Hungarian transmission system operator).

An important progress affecting cross border capacity allocation is that intra-day capacity allocation was introduced at the Romanian-Hungarian border crossing with effect from 15 October 2010 and the same with effect from 1 December 2010 at the Slovak-Hungarian border crossing.

The high cross border transmission capacity charges developed in the past years at certain border crossing points – frequently exceeding 10 EUR/MWh assuming a 100% utilisation rate – were dramatically reduced for both imports and exports in 2011. Typical prices with a few exceptions ranged between 0.5 and 1 EUR/MWh. Import charges (transmission to Hungary) were as follows: Slovakia 0.55 EUR/MWh; Austria 0.45 EUR/MWh, Serbia: 1.02 EUR/MWh. Export charges: Slovakia 0.27 EUR/MWh; Serbia 0.41 EUR/MWh, Austria: 1.22 EUR/MWh. Settlement prices for the Romanian import and export are outliers with 3.27 EUR/MWh and 0.07 EUR/MWh, respectively.

Like in former years, congestion management was administered by the Central Allocation Office GmbH (hereinafter referred to as: CAO, [www.central-ao.com](http://www.central-ao.com)) established by the affected transmission system operators in 2010 in the Central and Eastern European Region (hereinafter referred to as: CEE Region) as defined in the Annex of Regulation (EC) 1228/2003.

The work in progress in the CEE Region since years – fair buffer allocation (FBA) –, aimed at the adoption of a coordinated flow based allocation system, was continued in 2010. Significant progress could be achieved in the field of coordination by the adoption from 1 December 2010 of a uniform schedule management scheme for the region, based on the uniform European standards with harmonised closing times.

### Regulation of the functions held by transmission system operator and distribution system operator companies

One transmission system operator (TSO) and six distribution system operator (DSO) operated in Hungary in 2010.

MAVIR Zrt., holding both a system operator license and a transmission network operator license (also owning the transmission network assets as the member of the MVM Group), was granted a single transmission system operator license on 1 January 2008. It was modified three times in the course of the year 2010, in all three cases for reasons of updating the annexes (Resolutions 24/2010, 164/2010 and 496/2010). Upon Regulation No (EC) 2009/72 taking effect on 3 September 2009, MAVIR Zrt. operated as a subsidiary of a vertically integrated business organisation.

Each of the six distribution system operators operated in Hungary at the end of 2010 (E.ON Dél-dunántúli Áramhálózati Zrt., E.ON Észak-dunántúli Áramhálózati Zrt., E.ON Tiszántúli Áramhálózati Zrt., ELMŰ Hálózati Kft., ÉMÁSZ Hálózati Kft., EDF DÉMÁSZ Hálózati Elosztó Kft.) were predominantly owned by foreign investors through their respective parent companies E.ON Hungária Zrt., ELMŰ Nyrt., ÉMÁSZ Nyrt., and EDF DÉMÁSZ Zrt. The MVM Group held a share of 11.7% in ÉMÁSZ Nyrt and 15.15% in ELMŰ Nyrt.

No legal changes occurred in respect of the functions held by distribution system operator licensees in 2010.

### *Unbundling of operations*

Transmission system operators and distribution system operators in the electricity sector are currently operated in accordance with the rules of unbundling laid down in the Electricity Act



which was construed on the basis of Directive 2003/54/EC. Preparations for the transposition of the new unbundling rules in the Third Energy Package of the European Union were commenced.

## Conditions of unbundling in the Hungarian power sector

The Electricity Act and its implementation decree contain the mandatory requirements of unbundling natural monopolies (transmission system operation and distribution) from other competitive electricity operations (generation, trade, universal services) in Hungary.

The transmission system operator in 2006 was re-integrated into the publicly owned MVM Zrt. which carries out generation and trading operations through its subsidiaries, thus Hungary switched from the earlier model of Independent System Operator (ISO) to the transmission system operator model which is operated as an independent subsidiary within a vertically integrated business organisation. In the course of the transaction the transmission network was acquired by the transmission system operator. MVM Zrt. formed an organisation where the holding company coordinating subsidiaries is not engaged in any power operations subject to licensing. The single transmission system operator in Hungary, MAVIR Zrt. continued to conduct its activity in 2010 as a licensee which is an independent subsidiary controlled by MVM Zrt. Support functions centralised within MVM Zrt. earlier on (such as IT, finances, accounting, etc.) remained in this arrangement in 2010. MAVIR Zrt. auditor is identical with the auditor of the MVM Group. Internal services and other outsourcing activities providing the opportunity for cross-financing were and will be monitored by the Office with special attention.

## 1.2 Competition

The year 2010 has seen the revival of retail competition for consumers not entitled to universal services. A new player appeared on the household market, Hungarian Telekom Telecommunication Plc. as trading licensee.

The ratio of universal services within the retail market as a whole did not change in fact. The 40% rate means that almost all eligible customers purchase power from universal service providers. Since the adoption of universal service provision in 2008, the only reason why the consumption ratio was increased was an amendment of the law in 2008 extending the range of eligible customers in 2009. The amendment adopted on 9 June 2008 increased the eligibility limit to 3x63 A and extended eligibility to publicly financed institutions, local governments, their budgetary institutions providing public functions, entities of the church providing public functions and institutions providing public functions and maintained by foundations.

**Table 1:** Rates of organised (public utility and universal services) and free market consumption within total consumptions (%)

	2005	2006	2007	2008	2009	2010
<b>Free market</b>	32.8	36.7	21.9	64.4	60.0	60.8
<b>Public utility /universal services</b>	67.2	63.3	78.1	35.6	40.0	39.2

Recession caused an approximately 5% decline of power consumption in 2009 (compared to 2008). Reduced demand was coupled with a substantial drop in the output of the domestic generating sector (10%) and a significant increase of net imports. The joint weight of national power generators within the gross national consumption was reduced from 90% to 85.5%: the ratio of net imports within gross consumption – reduced from a level around 15-20% after the year of liberalisation to 10% temporarily by 2007 and 2008 – nearly reached 15% in 2009 again. In 2010 overall consumption was increased by 2.5% from the previous year, including an almost



4% growth in domestic production. Import balance is still considerable, accounting for 13.3% of gross consumption.

Relative domestic position of power plant investors has changed significantly due to the processes above. Consolidated production of base load generators (Paks, Máttra) slightly increased by 2010. Large gas fired power stations increased their output by 10% compared to 2009, yet their production is still only two thirds of that in 2008. As base load generators represented a part of the contract portfolio of MVM in 2010, wholesale market is still centred around MVM; nearly two-thirds of power needed to meet domestic demand continued to be forwarded to the universal service providers and traders delivering to customers through the MVM Group.

### Generator and trader markets

**Table 2:** Market shares of national power plant companies and groups of companies according to installed capacities (2009) and actual power generation (2010)<sup>1</sup>

	Installed capacities (MW), 2009	Market shares (per capacity) <sup>11</sup>	Production (TWh), 2010	Market shares (per production) <sup>12</sup>
MVM <sup>2</sup>	2590	28%	16.6	43%
GDF Suez <sup>3</sup>	1736	19%	2.7	7%
AES <sup>4</sup>	1237	13%	2.1	5%
RWE <sup>5</sup>	950	10%	6.3	16%
Alpiq <sup>6</sup>	403	4%	0.8	2%
EdF <sup>7</sup>	410	4%	1.4	4%
Other domestic generator <sup>8</sup>	1847	20%	7.6	19%
Total domestic generation	9173	100%	33.7	86%
Net import			5.2	14%
Gross consumption			39.0	100%
3 largest power companies <sup>9</sup>	5 563	61%	25.6	66%
HHI-index <sup>10</sup>		1500		2167

1. Power companies in this table are understood as the investor groups owning the power stations. For reasons of simplicity power generating units active on the system level services market were not screened out (such as Dunamenti F, or AES Tisza blocks)
2. MVM: Paks Atomerőmű Zrt., Vértesi Erőmű Zrt., MVM GTER Zrt.
3. GDF Suez: Dunamenti Erőmű Zrt.
4. AES: AES-Tisza Erőmű Kft, AES Borsod Energetikai Kft.
5. RWE: Mátrai Erőmű Zrt.
6. Atel (from 1 February 2010 Alpiq): Csepeli Áramtermelő Kft.
7. EdF: Budapesti Erőmű Zrt.
8. Consolidated share of power plant investors below a market share of 5%
9. The three largest companies are different when installed capacity (MVM, GDF Suez, AES) and output (MVM, RWE, GDF Suez) are concerned.
10. Concentration indices are higher when calculated with available or actually used capacities and lower when import capacities are included.
11. Based on gross installed capacity (year 2009 figures).
12. Net (sent out) output of the power company concerned divided by gross national consumption (year 2010 figures).

The Hungarian market reflected a low level of concentration in 2010 when assessed with conventional means. During the privatisation of the power generating sector between 1995 and 1997 a large part of the power stations owned by the vertically integrated state-owned entity (Magyar Villamos Művek Tröszt, Hungarian Electricity Works Trust) was acquired by strategic investors (Electrabel, RWE, AES). Joint shares of the three largest generator accounted for 61% of installed capacity in 2009 and 66% of output in 2010. The Herfindahl-Hirschman Index

(HHI) measuring the concentration level of the market on a scale of 0 to 10 000 would indicate a value around 1400-1800, pending on the calculation method. This means a multiple player, slightly concentrated market under standard conditions

While concentration of power generating capacities is relatively low, a higher level of concentration can be seen in wholesale trading. Namely, the majority of capacities required for the supply of end-users was booked by the former public utility wholesale trader MVM Rt. through long term power purchase agreements (LTA), executed during the years when the power generating sector was privatised (1995-1997). The contracts concerned were terminated by the LTA Act with effect from 31 December 2008. Pursuant to the authority conveyed by the Act, Government Decree No 149/2010. (IV.29.) defined the methodology of calculations used to compute the actual amounts recoverable illegal state aids and a stranded costs compensation scheme due to the termination of the LTA-s. The methodology determined for calculating compensation amounts for stranded costs in accordance with provisions of the Decree and the figures computed accordingly were approved by the European Commission in its decision 'State Aid N 691/2009 – Hungarian stranded costs compensation scheme' dated 27 April 2010. The Office issued a decision for the affected power plants with the subject 'Establishment of the recoverable amounts of state aid provided under the Agreement' on 7 May 2010, according to which:

- AES-Tisza Erőmű Kft., Alpiq Csepel Kft., Mátrai Erőmű Zrt. and Paksi Atomerőmű Zrt. have not been granted illegal state aid through LTS-s pursuant to the LTA Decree.
- Budapesti Erőmű Zrt. was granted HUF 44 203 608 thousand illegal state aid without recovery obligation, since according to the return calculations of the LTA Decree the generator still has an investment value of HUF 89 209 966 thousand which has not yet been paid back. Stranded cost compensation is thus HUF 89 209 966 thousand.
- Dunamenti Erőmű Zrt. was granted HUF 125 352 538 thousand illegal state aid without recovery obligation, since according to the return calculations of the LTA Decree the generator still has an investment value of HUF 21 171 911 thousand which has not yet been paid back. Stranded cost compensation is thus HUF 21 171 911 thousand.
- Pannon Hőerőmű Zrt. was granted HUF 9 398 827 thousand illegal state aid without recovery obligation, since according to the return calculations of the LTA Decree the generator still has an investment value of HUF 3 936 511 thousand which has not yet been paid back. Stranded cost compensation is thus HUF 3 936 511 thousand.

The Office will annually monitor the payback trends of the affected power plants up to the end of the aid programme, i.e. the date of completion of the original LTA-s and will prepare a consolidated account for each of the generators at the end of the aid programme. Provided LTA related investments are paid back or stranded costs accounted for illegally pursuant to the LTA Act are incurred – if the generator illegitimately withholds power generation, requests suspension of the generating license or the license was withdrawn –, the Office shall establish a recovery obligation for the generator in respect of the state aid. According to the LTA Decree the Office shall inform the MND once a year, before 30 April after the current year, on the trends observed in the payback of the affected power generators (Budapesti Erőmű, Dunamenti Erőmű, Pannon Hőerőmű).

MVM concluded new 5 to 8 years long agreements with the majority of the affected generators. Through these new agreements MVM (i.e. MVM Trade Zrt.) disposed of approximately 40 to 50% of all available capacities of the domestic power generators in 2010, which resulted in practical terms that some 59% of all domestic output could be accessed through a single player, MVM.

**Table 3:** Sales patterns of national power plant companies

	Electricity sales (TWh)					Share
	2006	2007	2008	2009	2010	2010
<b>MVM-LTA<sup>1</sup></b>	23.6	26.5	26.8	19.9	19.8	58.5%
<b>Trader<sup>2</sup></b>	3.2	3.6	3.2	5.0	6.0	17.8%
<b>Feed-in obligation<sup>3</sup></b>	4.5	5.0	6.5	7.4	7.6	22.5%
<b>Other</b>	2.0	1.9	0.2	0.3	0.4	1.2%

1. Electricity purchase by MVM Rt, MVM Zrt., and MVM Trade Zrt. (public utility wholesale trader up to 2007) through LTA, from 2009 on through 5-8 years term power purchase agreements. The public utility wholesale trading license was discontinued in 2008, MVM Trade Zrt. holds only trading license from this time on. The table does not contain the procurement of MVM Rt, MVM Zrt, and MVM Trade Zrt. outside the LTA scheme (up to 2007 such power included sales of certain large power plants under the feed-in obligation scheme).
2. Sales of generators to traders include procurement of MVM Partner Zrt. from power plants.
3. Buyers of the feed-in obligation sales were mainly public utility service providers and to a lesser extent the public utility wholesale trader up to 2007. Since 2008 only MAVIR Zrt. buys them.

The structure of the wholesale power market differs in respect of sales to universal service providers and traders. Nearly three quarter of all purchases by universal service providers took place through a single sales channel in 2010. In other words, MVM dominance remained unchallenged (72%) in the service segment covered by regulated tariffs (even though its size was decreased) (*see Table 4*). Other procurements of universal service providers were mainly accounted for by the power produced by small power plants in co-generation facilities or from renewables and sold to MAVIR at regulated prices under the feed-in obligation scheme, and the ratio of the balancing power of the FIO balance group allocated to the service providers affected.

**Table 4:** Procurement patterns of public utility and universal service providers

	Power purchase <sup>1</sup> (TWh)					Share
	2006	2007	2008	2009	2010	2010
<b>MVM<sup>2</sup></b>	17.7	22.9	10.5	10.4	10.1	71.6%
<b>Feed-in obligation</b>	3.7	4.4	2.3	3.1	3.3	23.4%
<b>Other</b>	0.9	0.8	0.0	0.5	0.7	5%

1. The table only contains power purchased to meet customer demand under public utility or universal services. It does not contain purchases of public utility service providers for the purposes of off-setting distribution network losses (satisfied by MVM Rt./MVM Zrt./MVM Trade Zrt. until 2007).
2. It does not contain purchases of public utility service providers for the purposes of off-setting distribution network losses.

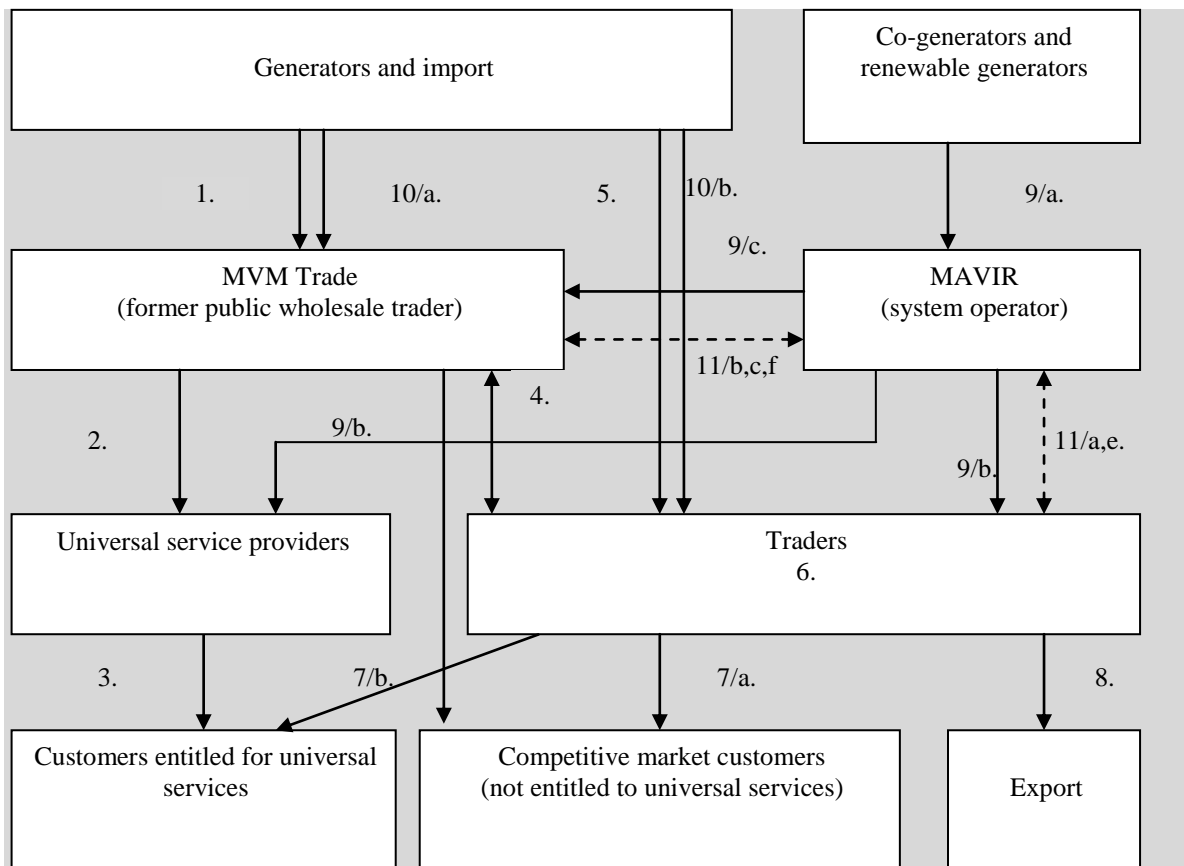
Procurement of free market traders – as opposed to public utility and universal service providers – was not restricted by the law. Therefore, the market is more heterogeneous in this segment and MVM dominance was less striking. With the increase of free market consumption MVM free market sales grew quickly up to 2008, and thus it played a gradually more important role in servicing traders delivering to eligible customers. Primary procurements of traders in 2010 (that is, disregarding trading between traders) were fed by four basic sources (*Table 5*). These included imports, sales by MVM from booked power generating capacities, free capacities of domestic power plants not booked by MVM and, since 2008, reselling of the power purchased by MAVIR under the feed-in obligation scheme supplemented with the power originating from the balancing of the FIO balance group. Power from primary sources (once gone through between traders' transactions) is mainly sold on the domestic retail market and a lesser amount is exported.

**Table 5:** Primary procurement patterns of traders <sup>1</sup>

	Power procurement (TWh)					Shares 2010
	2006	2007	2008	2009	2010	
Import <sup>2</sup>	7.7	9.9	11.9	15.0	14.0	39.7%
MVM	6.5	5.1	14.3	9.2	10.3	29.2%
Domestic power generators	3.2	3.6	3.2	5.0	6.0	17.0%
Other <sup>3</sup>	0.2	0.2	4.5	6.3	5.0	14.2%

1. Primary procurement of traders includes electricity purchased directly from domestic power plants or imports, or from MVM as the former public utility wholesale trader. The table does not contain the significant transactions volumes between traders. Trader procurements exclude procurements of MVM Trade Zrt. in order to allow comparison between the periods before and after 1 January 2008.
2. Trader imports exclude power purchased and sold abroad.
3. Includes mainly power procured from the transmission system operator until 2007, from 2008 it also includes power purchased from the transmission system operator under the feed-in obligation scheme.

Though there is an organised power market (i.e. power exchange) in Hungary, power trading still takes place basically under bilateral power contracts. Power sales of 2010 are illustrated on **Figure 1** (transactions related to system level services are not included).



**Figure 1:** Transactions on the electricity market

The following explanation may facilitate interpretation of the figure.

Domestic power plants sold most of the power generated under the 5 to 8 years long agreements concluded with the former public utility wholesale trader MVM (1.). Nearly a quarter of their production (co-generated and renewable power) was taken over from them by MAVIR at the feed-in tariff rate specified in the Decree (9/a.). Some 18% of the power generated was sold directly on the free market under short term (mostly annual) contracts (5.).

About half of the power purchased from the national power plants was sold by MVM under 4 years framework contracts to the universal service providers supplying power to eligible customers at the officially approved tariff rates (2., 3.). Thirty-nine per cent of all domestic power consumptions were processed through this officially regulated sales channel in 2010.

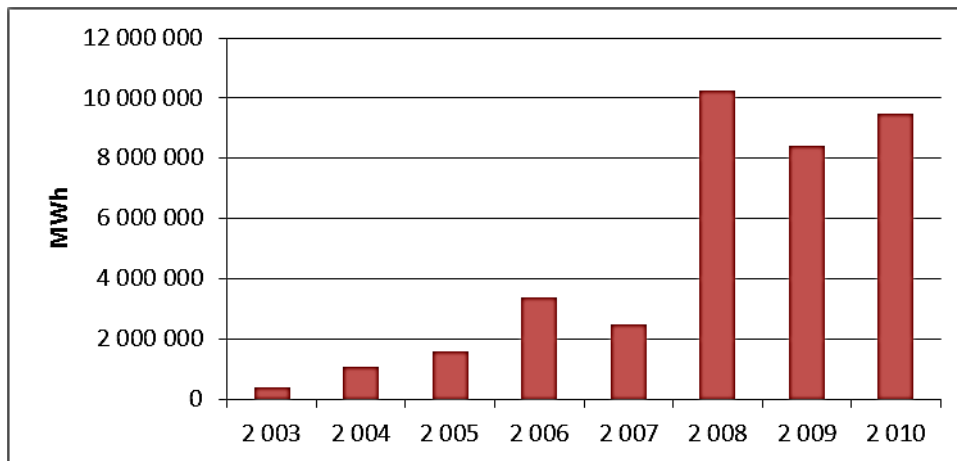
Approximately half of the power available at the generators was sold by MVM to traders either under bilateral contracts or at public capacity auctions (4.). Although traders based their operations primarily on import sources in the first year of market opening, selling power plant capacities booked by MVM has become the most important procurement source – once the initial surplus capacities in import vanished – within a few years for free market traders beside the import (10/b.). Primary purchases of traders were mostly subjected to secondary trading in the trader sector (6.), before sold to users (7/a., b.), or to the export markets (8.). A special sales category is represented by power generated from renewable sources or through co-generation (9/a., b.). This kind of electric power has to be purchased from generators by the transmission system operator (MAVIR) under the FIO scheme (at a price specified in the respective legislation and in volumes and during a period defined by the Office) (9/a.). Electricity sold under the FIO scheme and power originated from FIO balancing shall be purchased by traders and universal service providers from MAVIR proportionally to their respective shares in customer sales (9/b., 9/c.).

### *Market events and regulatory changes*

The Hungarian Power Exchange, HUPX was launched on 20 July 2010. Founder and operator HUPX Hungarian Power Exchange Company Limited by Shares was set up by MAVIR Zrt. in May 2007 with a registered capital of HUF 20 million. Trading was restricted to T+1 hourly product in 2010 with physical transmission flows in the Hungarian system but block products, physical futures transactions and intra-daily market is envisaged for the year 2011 just as well as the connection of the market with neighbouring countries (Austria, Romania). Beside HUPX Power Exchange Central Europe a.s. received license for the organised electricity market.

Due to the domestic and regional decline of demand in the wake of the worldwide economic recession a part of the power generating investments were stopped, including the proposed joint venture project of Hungarian Electricity Works (MVM) and the German RWE energy concern in Hungary, the capacity extension of Mátrai Erőmű Zrt. with a 440 MW coal fired block worth HUF 300 billion. Construction works were also abandoned at the more than 230 MW output gas fired power plant in Vásárosnamény. Execution of the proposed combined cycle facility was assigned to Kárpát Energo Zrt. owned by MVM Zrt. (51%), System Consulting Zrt. (25%) and Stratus Ltd. (24%). Estimated investment costs were USD 137 million.

Auction sales of MVM Trade Zrt., ordered by the Office for the licensee holding significant market power in a so-called SMP resolution continued in 2010 (Figure 2).



**Figure 2:** Amount of electric power sold on MVM auctions for each of the sales years (MWh)

### *Key features of the retail market*

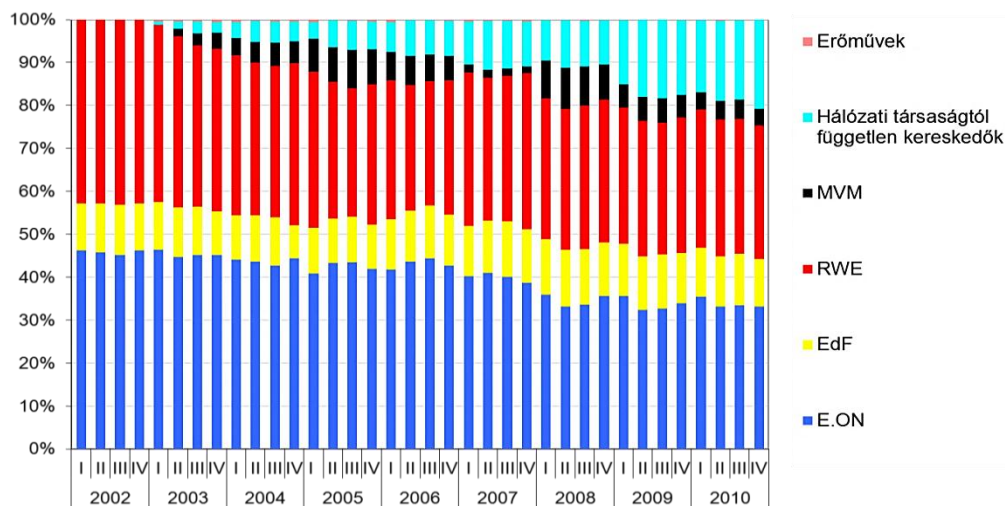
The essential feature of the retail market since market opening in 2003 is the double arrangement: the separation of the regulated and free tariff segments. The ratio of the two segments in relation to each other changed dramatically from 2008. Regulated public utility services available to all customers earlier on were replaced by universal services, available to a much more limited range of eligible customers.

Customers eligible to universal services are still predominantly supplied by former public utility service providers, now holding universal service provider licenses. Universal service providers are bound by power selling and contracting obligations to eligible customers.

Non-eligible customers either purchased power from the free market earlier on (mainly large customers) or were exposed to the free market only upon termination of the public utility scheme (mainly medium and small customers). Small customers exposed to the free market upon termination of the public utility services mostly remained with their former service provider, who supplied energy to these free market customers holding their respective trading licenses.

Companies holding universal service provider and trading licenses –E.ON Energiaszolgáltató Kft., Budapesti Elektromos Művek (ELMŰ) Nyrt., Észak-magyarországi Áramszolgáltató (ÉMÁSZ) Nyrt. and EDF Dél-magyarországi Áramszolgáltató (EDF DÉMÁSZ) Zrt. – are also interested in the operation of the distribution networks through their subsidiaries or affiliates. Universal service providers are owned by three multinationals – E.ON, RWE, EdF –, which provided power to users in the course of the year through some other trading companies as well, beside those referred to above. Total share of these groups of companies on the entire domestic retail market was very significant even seven years after full liberalisation of the market in 2003: 77%, just like in 2009 (Figure 3).

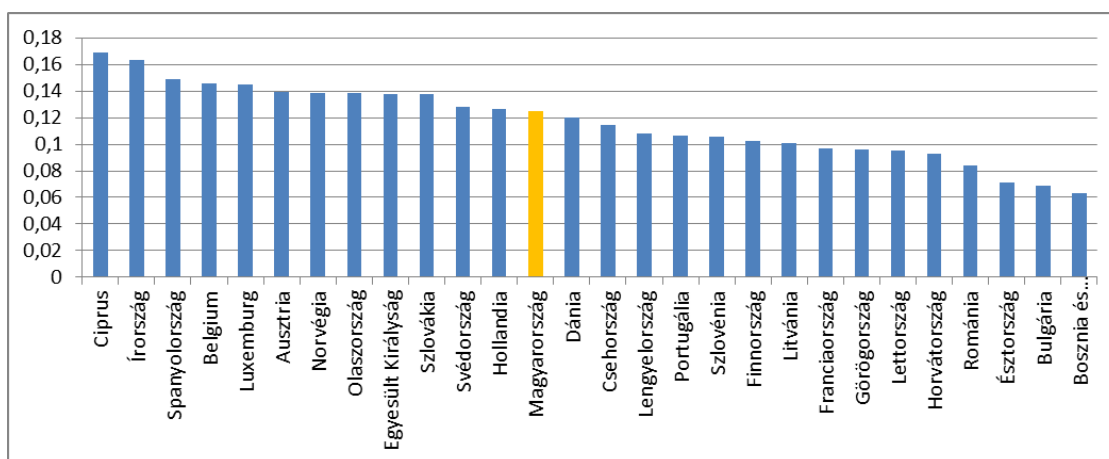
In spite of strong market concentration, the retail market was entered by traders undertaking the supply of consumers upon market liberalisation in addition to their wholesale trading operations. They included multinational companies controlling several subsidiaries in the region and smaller domestic traders alike. Thirty traders which had no proprietary relations to domestic distribution system operators were active on the retail market in 2010. Their respective share was – like last year – approximately 23%, but deducting the traders associated with the MVM Group, this ratio drops to 19%. Some of the traders were organised only to supply a certain range of customers, usually a group of companies.



**Figure 3:** Changes in shares of the respective investment groups on the retail market (2002-2010)  
*Red: power plants,*  
*Light blue: independent traders*

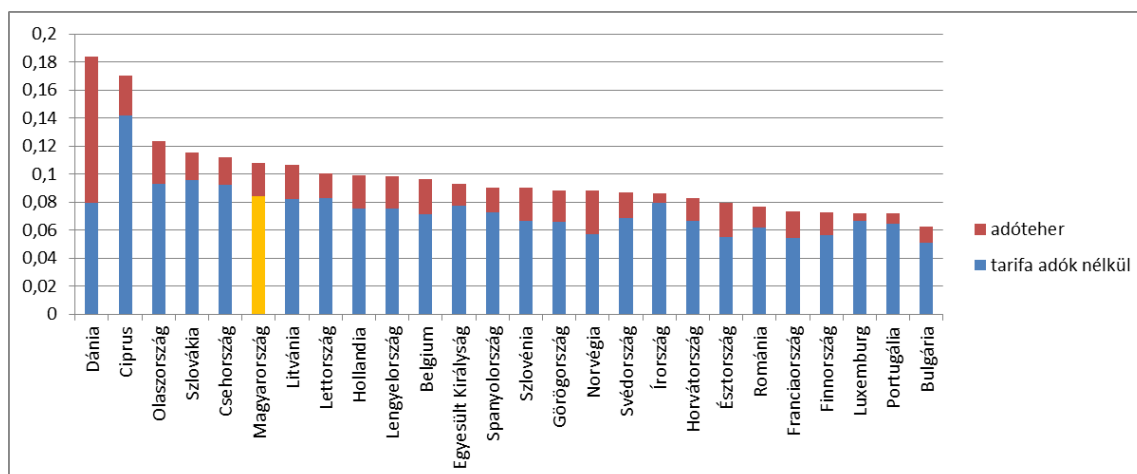
Market share of former public utility service providers (E.ON, EdF, RWE companies today) was further reduced in 2010. Their market position continued to be extremely strong, since 90% of approximately one hundred thousand customers taking power outside the scope of universal services (primarily small and medium customers not entitled to universal service provision) was supplied by the 'successor' company of the former public utility service provider. (Beside them only MVM Partner Zrt., Hungarian Telekom Telecommunication Plc. and Klepierre Trading Energia Kereskedelmi és Szolgáltató Kft. can boast with more than one thousand customers). When the market shares of service providers and traders are calculated by the annual consumption volumes and not the number of customers, this share is much less: former public utility service providers and their associated companies delivered 64% of all free market consumption in 2010. It can be clearly seen from the data that new entrant traders compete mainly for the supply of large customers.

Domestic end user tariff rates in 2010 were in the middle range for both household customers and 20-70 GWh industrial customers. Price margin of the industrial customers is a positive development when compared to the previous year (*Figures 4 and 5*).



Source: EUROSTAT

**Figure 4:** European outlook of electricity tariff rates for household customers (excluding taxes, 2 500 – 5 000 kWh annual consumption; year 2010 annual figures, Euro/kWh)



Source: EUROSTAT

**Figure 5:** European outlook of electricity tariff rates for non-household customers (20 – 70 GWh annual consumption; year 2010 annual figures, Euro/kWh)

### Measures to tackle abuse of market dominance

Official ex-post (competition supervision) functions laid down in Act No LVII of 1996 on the prohibition of unfair trading practices and unfair competition (hereinafter referred to as the Competition Act) concerning the subsequent investigation and sanctioning the abuse of undue economic dominance are performed by the Hungarian Competition Authority (hereinafter referred to as: HCA). However, the jurisdiction of ex-ante intervention stipulated in the Electricity Act intended to prevent abuse of significant market power is exercised by the Office.

Under this new regulation the Office as a supervisory agency may impose additional special obligations (such as power sales under public capacity auctions, cost based pricing, preparation of sample bids, etc.) to any licensee which is deemed to possess significant market power in a market analysis – whether it is a player on the wholesale or retail market. Imposing obligations



serves the prevention of abuse of market dominance and the establishment of a more efficient competition. The Office shall identify the licensees possessing significant market power based on market analyses in collaboration with the HCA and orders special additional obligations adjusted to their respective market positions.

The Office identified MVM Trade Zrt. on the market of reserves procured for balancing regulation purposes in system level services and MVM GTER Zrt. on the market of reserves for operating troubles as companies with significant market power. The Office imposed cost based pricing and tendering obligation to the affected companies.

### 1.3 Security of supply

#### Winter preparations

The Office evaluated the preparedness of licensees involved in power supply and the expected security of supply by taking into account the following considerations:

- implementation of scheduled annual maintenances and developments (budgeted versus actual figures),
- securing fuel supply of power plants for winter operation by type of fuel,
- availability of stockpiles laid down in Decree No 44/2002. (XII. 28.) GKM,
- availability of power capacities, power balance and reserve capacities.

Winter preparations for 2010 were accomplished by the power plants:

- annual scheduled maintenance was completed by 15 October 2010.
- fuel supplies were secured by the appropriate contracts.
- power plants required to stockpile fuel had such stockpiles.
- the capacity balance of the Hungarian electricity system for the second half of 2010 could be deemed appropriate. Import needs exceeded 200 MW within the period under investigation only at the beginning of October and in November, or at times of higher loads. Sufficient market supply and the necessary cross border capacities were available all along the period.

Lőrinci GT, Block G2 of Dunamenti and the black start unit of Gönyű Power Plant which have a so-called black start capacity were all ready to service throughout the period under investigation. MAVIR dispatching officers tested the frequency independent load limiting system (FKA) on a weekly basis which was available and ready to use throughout the period.

Shut down of natural gas supply to gas fired power plants may be necessary in the cold winter season, therefore cooperation of the electric power transmission system operator dispatcher and the natural gas transmission system dispatcher MOL Földgázszállító Zrt. is still needed. Though measures were taken to prevent the freezing of coal supplies, in events of a substantial temperature drop such incidents may occur limiting the generation in Mátrai Power Plant. In such cases quick action may be needed to switch reserve capacities on.

## *Development of the transmission network*

It is the task of the transmission system operator MAVIR Zrt. to ensure long term, safe availability and to maintain a European level security of electric power supply on the national grid. The transmission network constitutes an integral part of the Hungarian electricity system meeting national and international expectations. The development, retrofit, maintenance and operation activities carried out on it include the following:

- By December 2010 the Martonvásár–Bicske 400 kV long distance transmission line and the Bicske 400/120 kV substation was completed and the Martonvásár 400/220 kV substation extended.
- The Szombathely-Wien Südost 400 kV connection line was put into operation.
- The Gönyű 400 kV power plant connection substation was erected and the Győr – Litér 400 kV long distance transmission line split up to connect the Gönyű 400 kV station.
- The double system Pécs-Ernestinovo 400 kV connection line was handed over in 2010.

## **1.4 Price preparation, pricing**

### *Pricing framework for universal tariff rates*

With the elimination of the public utility electric power supply services in 2008 and the launch of the so-called ‘universal services’ a new era was started. Distinct tariff categories emerged for household and non-household retail customers such as electric power as a product, network use (system usage) as a service ensuring that this product is delivered to customers and taxes and other tax type items.

Unlike natural gas, the universal tariff rate in the case of electric power refers only to the product and related margins in its contents, not containing the system charges and various taxes. Retail customers and from 2009 public institutions, if they did not enter the free market, could continue to draw electricity in 2010 under the universal service provision at the regulated tariff rate.

Based on the experiences gained in the year of 2009 significant amendments took effect on 1 January 2010 of the Decree on universal service provision [Decree No 44/2008 (XII. 31.) KHEM on pricing universal services of power and on the product packages to be provided under the universal services].

It was no longer justified to take into account the price of gas purchased by power plants when the recognised costs of electric power purchase was determined for universal service providers, considering that in the purchase portfolio of MVM Trade Zrt. – the trader delivering the overwhelming majority of their needs – the ratio of gas derived power was reduced to a minimum. Observation of the prices, ratios and tariff fluctuations on the dominant power exchange of the region in Leipzig, completed with the appropriate HUF/euro price index seemed to be a more appropriate method of determining recognised purchase costs of power from the market, thus reflecting international market prices in Hungarian pricing regulations. The consideration of the prices set at the major Hungarian auctions intended to take into account the current domestic power purchase conditions.

The annual recognised trade margin for universal service providers was 1.98 HUF/kWh in 2010.

Though regulations in place before 2010 could tackle the case where the annual average trade margin of the universal service provider exceeded the maximum allowable amount provided for

in the law, it was not governed what happens when the margin falls below that limit. This biased approach was intended to be resolved by the new provision added to the Decree on universal services, under which the amount corresponding to the missing margin (as determined by the Office in a resolution) can be enforced in next year's universal service tariffs.

Before 2010 no regulation existed governing the ratio between controlled and daily universal service provision rates. With a view to the interests of both customers and the cooperating electricity system, the tariff rate of controlled universal services was maximised as 70% of the daily tariff rates from 2010.

For reasons of environmental considerations and considerations promoting sustainable development on the longer term, a special tariff rate was developed in 2009 for the power used to drive heat pumps and other appliances directly powering equipment providing heat obtained from solar and other renewable energy resources to buildings. Drawing electricity at discounted product prices and system charges according to the required conditions could be started from the heating season of 2010-2011.

### *Margin control*

The Office is required to carry out the control of the maximised commercial margin of universal service providers before 31 March of the year following the current year. The review conducted in March 2010 established that in 2009 all the four universal service providers generated extra income from margins which has to be reimbursed to the customers. The amount and method of reimbursement was determined by the Office in a resolution.

Pursuant to the margin control review for 2010 the Office established that annual average margins calculated according to the pricing provisions and based on the 2010 actual data exceeded the extent allowed by the respective legislation (1.98 HUF/kWh) in the case of two service providers (E.ON Energiaszolgáltató Kft., ÉMÁSZ Nyrt.), while in the case of the other two service providers (EDF DÉMÁSZ Zrt., ELMŰ Nyrt.) it was less.

Resolutions No 154-157/2011 passed by the Office on the extra margin or shortage of margin of certain service providers, on the amounts to be reimbursed incremented with the base rate of the bank of notes and the mode of accounting of the reimbursement or deficit provide for of-setting the above in the 2011 universal service rates. No actual cash-flows or automatic change of tariff rates are associated with this arrangement. However, the maximum permitted margin according to the pricing mechanism for 2011 will become approximately 30 fillér/kWh less for E.ON Energiaszolgáltató Kft. and approximately 5 fillér/kWh less for ÉMÁSZ Nyrt., while it will be increased by approximately 10 fillér/kWh for EDF DÉMÁSZ Zrt. and ELMŰ Nyrt. then otherwise provided for in 2011 for the service provider concerned. The performance of this provision will be checked by the Office following the closure of year 2011.

### *Price change requests and price changes of universal services*

E.ON Energiaszolgáltató Kft. in November 2009 and DÉMÁSZ Zrt. in December 2009 submitted price reduction requests for universal services to the Office. The requests were granted by the Office. New rates (lower by an average of 6.85% and 3.2% as opposed to those in effect from November 2009, respectively) for universal service provision took effect on 1 January 2010.

All the four universal service providers submitted price reduction requests to the Office in April 2010. The applications included price reductions of different extent with the intention to comply with the provisions of the effective pricing system. Having reviewed the calculations attached to the applications the Office arrived at an approving decision in each of the cases, resulting in a

decrease of 2.6-9.7% of the universal service provision tariff rates. The differing changes were explained primarily by the different procurement and sales strategies of the respective service providers. Upon calculating the reduction rates requested, the service providers took into account the requirements concerning the accounting for the extra margin (or reimbursement) of 2009 included in Office resolutions No 115-118/2010. Amended universal service tariffs took effect in July 2010.

Pursuant to the amendment of the Electricity Act, right to set universal service providers' tariff rates was transferred into the powers of the Minister and – similarly to the tariffs charged for system usage – the Office is required to make a proposal for pricing to the Minister. Preparations of the tariff rates and pricing regulation to take effect from 2011 were completed in the second half of 2010 in the spirit of the new provision.

### *System charges*

The fourth four years (2009 to 2012) pricing cycle of the electricity system started on 1 January 2009.

Actual regulated prices for system usage (transmission system operation, system level services and distribution) are determined by Decree No 119/2007 (XII. 29.) GKM on the system charges of the electricity system. Taking into consideration the diverse European practices, the domestic regulation provided for system charges to be paid directly by parties withdrawing power from the electricity system only, not those feeding onto it (i.e. generators).

During 2008 the Office prepared methodology guidelines concerning the pricing mechanism of the new pricing cycle pursuant to paragraph (5) Article 142 of the Electricity Act and published it on 31 October 2008. This was then amended by the Office acting within its own scope of authority on 22 October 2009 in response to the recession (in excess of 5%) which occurred in the electric power sector as a consequence of the economic crisis in 2009 and to a few practical corrections which proved to be unavoidable in the meantime. System charges for 2010 were prepared by the Office accordingly and their promulgation instigated with the Minister. System charges in effect from 1 January 2010 were published in Decree No 69/2009. (XII. 4.) KHEM amending Decree No 119/2007 (XII. 29.) GKM on the system usage charges of the electricity system.

The amount payable for transmission system operation and system level services was increased from 1 January 2010 by 53.5% compared to HUF 1/kWh in 2009, but still remained below the 2008 level. Increased charges were solicited by three reasons:

- subsequent pricing corrections arising from the closure of the previous cycle ended in 2008;
- substantial price increase of the – primarily secondary – capacities held by power plants Dunamenti and AES Tisza entering the free market as a result of the early termination of long term power purchase agreements (LTA) in place between MVM Trade Zrt. and large power plants;
- pricing modification effectuated by the Office related mainly to the decreasing power demand.

Distribution fees were reduced by 0.4% in average on 1 January 2010 compared to 2009 (varying between -33% and +2% for different voltage levels). The underlying factors behind these figures include the increase of charges covering fixed costs by the rate of inflation and the reduction of procurement costs for distribution network losses.

The Office repeatedly modified the Methodology guidelines referred to above on 19 November 2010 to adjust the recognised justified costs of distribution network losses to the changed market conditions. The proposal for the system charges of 2011 was prepared on the basis of the amended Methodology guidelines.

Distribution fees were reduced on 1 January 2011 with an average rate of 2.9% compared to 2010. The rate of reduction differs for each of the voltage levels, in a spread between 0.1% and 6%. Reduced fees were made possible by the reduction of the procurement costs for distribution network losses.

Trends in system usage fees in 2009 to 2011 are shown on Tables *6 a) to c)*.

**Table 6:** Consolidated trends in electricity prices for system usage (excluding V.A.T.) from 2009

a) Charges for transmission system dispatching and system level services (HUF/kWh) and their changes

For customers (users) connecting to the distribution network	Charges			Changes	
	2009 January	2010 January	2011 January	2010 January	2011 January
Transmission system dispatching charge	0.577	0.823	1.272	42.6%	54.6%
System level services charges	0.423	0.712	0.637	68.3%	-10.5%
Total	1.000	1.535	1.909	53.5%	24.4%

b) Average distribution charges<sup>2</sup> and their average changes<sup>3</sup>

	Charges			Changes	
	2009 January	2010 January	2011 January	2010 January	2011 January
High voltage connection	1.017	0.672	0.651	-33.9%	-3.1%
Connection to high/medium voltage transformer	2.647	2.176	2.174	-17.8%	-0.1%
Medium voltage connection	4.230	4.158	4.049	-1.7%	-2.6%
Connection to medium/low voltage transformer	6.338	6.141	5.909	-3.0%	-3.9%
Low voltage connection I <sup>4</sup>	13.647	13.889	13.520	1.8%	-2.7%
Low voltage connection II (controlled)	6.325	6.134	5.764	-3.0%	-6.0%
Low voltage connection III <sup>5</sup>	12.705	12.566	12.274	-1.1%	-2.3%
Average	8.001	7.967	7.739	-0.4%	-2.9%

c) Average system charges for electricity from 2009

		Charges (HUF/kWh)			Average changes	
		2009	2010	2011	2010	2011
		January	January	January	January	January
Connection to the transmission network		1.00	1.54	1.91	53.5%	24.4%
Connection to distribution networks <sup>2,3,7</sup>	High voltage connection	2.02	2.21	2.56	9.4%	16.0%
	Connection to high/medium voltage transformer	3.65	3.71	4.08	1.7%	10.0%
	Medium voltage connection	5.23	5.69	5.96	8.9%	4.6%
	Connection to medium/low voltage transformer	7.34	7.68	7.82	4.7%	1.7%
	Low voltage connection I <sup>4</sup>	14.65	15.42	15.43	4.9%	0.0%
	Low voltage connection II (controlled)	7.32	7.67	7.67	5.3%	0.1%
	Low voltage connection III <sup>5</sup>	12.71	14.10	14.18	4.7%	0.6%
	Average	9.00	9.50	9.65	2.9%	1.5%

**Notes:**

1. In the period presented 20% until 1 July 2009 and 25% from 1 July 2009.
2. Excluding the charges for balancing distribution schedules, calculated with average volumes for each of the categories.
3. Calculated with the weighing factors considered for 2010 and 2011 prices.
4. For booked / contracted capacities below 3\*80 A.
5. For booked / contracted capacities exceeding 3\*80 A.
6. Sum of transmission system operator and system level service charges.
7. Sum of transmission system operator and system level service charges plus the average value of distribution service fees.

### *Pricing incentive of distribution service quality*

Under the regulated distribution service quality incentive system laid down in the Methodology guidelines published by the Office, the development trends of the service quality parameters have an effect on the inflation correction factor applied to the annual price corrections. Distribution service providers achieving better service quality under the nationally uniform distribution charges will be granted extra income through the reimbursement percentage value correction of the revenue balancing mechanism adopted in August 2006, while those showing poorer performance may receive less funds than otherwise justified. After the official data became available and processed, the Office conducted the evaluation of the 2009 service quality parameters by May 2010, thus the performance of service quality parameters is reflected in the regulated prices for 2011.

Upon the initiative of the Office, the regulation sanctioning impaired distribution service quality parameters was again included in the Decree on the determination of establishing system usage charges [Decree No 119/2007 (XII. 29.) GKM] as a second pricing element of the service quality incentive system in the pricing cycle started in 2009. This provides for the distribution service provider to provide a 1 to 3% discount on the distribution fees charged for the next second half year, if the impairment of the service quality indicators was established by the Office in a resolution.

Under this arrangement E.ON Észak-dunántúli Áramhálózati Zrt. (ÉDÁSZ) granted a 1% discount to customers in the second half year of 2010.

### *Changes in the full tariff rates of users supplied under the universal services*

'Full rates' (i.e. the amount actually paid by the customer for the electric power supplies) – disregarding changes in the annual consumption volumes – are derived from consolidated impact of the universal service tariff rates, system charges and tax type items. As changes of the above components do not coincide everywhere, changes in universal service tariffs are different by service area (and sometimes by tariff categories), and changes in each component of the (currently nationally uniform) system charges are also differentiated, therefore actual variations of the 'full' rates may differ by users in a very wide range.

For users supplied under the universal scheme the full rate payable for electric power changed in aggregate in a range of -3,1 – +1.9% on 1 January 2011 from 31 December 2009, pending on place of residence (registered site), tariff categories and consumption volumes.

### *The case of power covered by feed-in obligation*

Feed-in tariffs were changed on 1 January 2010 and – due to gas price changes for co-generated power covered by feed-in obligation – on 1 April.

The extent of changes on 1 January 2010 ranged between -2.9 and 4.1%. Spread was due to the different pricing formulas for the various energy resources.

The price of power generated in gas fired co-generation plants was increased by 11% pursuant to the effective regulation [Government Decree No 389/2007. (XII. 23.) Korm.] in April to reflect the substantial increase of gas prices on 1 April (18.3%).

The source of the financial support provided under the feed-in obligation scheme is the extra price implicitly integrated into the mandatory purchase price of electricity. This power is then allocated by the MAVIR Zrt. FIO balance group to the various stakeholders according to the conditions laid down in the applicable legal provisions, and finally spread over the customers. In this aspect some HUF 84.7 billion of such support can be quantified for 2010 when the 16.21 HUF/kWh virtual 'market' prices are taken into account (as opposed to HUF 80 billion in 2009 associated with a virtual 'market' price of 16.23 HUF/kWh). Twenty eight billion was related to renewables and 56.7 billion to co-generated electric power.

According to paragraph (5) Article 171 of the Electricity Act sales licenses concerning the sale of electricity under the feed-in obligation scheme but not covered by the official resolution governing the volumes of such power and the duration of the feed-in obligation were discontinued by 31 December 2010. According to paragraph (5) Article 171 of the Electricity Act the Office extended the duration of feed-in obligation for a period of at least 7.5 years but maximum up to 31 December 2015 as calculated from the start of commercial operation, when

- at least 70% of the heat generated are sold to households or to specifically defined institutions;
- the Office established that the benefits arising from the co-generated power participating in the feed-in obligation scheme is proven to be forwarded up to the district heat customers or to the specifically defined institutions;



- the generator undertook the obligation to render before to 31 December 2011 its power plant suitable to generate power necessary for securing system level services and to operate independently from the heat consumption patterns.

Act No CLXXXI of 2010 amending certain Acts on energy and Act No LXXVIII of 1997 on the establishment and preservation of the built environment added paragraphs (5a) to (5e) of Article 171 of the Electricity Act taking effect on 31 December 2010, thus providing the opportunity to extend the feed-in obligation period of co-generating power generators covered by the feed-in obligation under Act No CX of 2001 on electric power and Decree No 56/2002. (XII. 29.) GKM issued under the authorisation thereof.

## 1.5 Public service obligation and customer protection

### *Approval of Codes*

The Electricity Act was amended 5 times, the VET Imp. Decree three times in the course of 2010. These changes required continuous adaptation of the Business Codes in place with the licensees to the legislation in effect from time to time. Business Codes were amended under the multiple round negotiation talks where members of the user side in the Council of Energy Interest Representation (hereinafter referred to as: CEIR) were also involved. The Office issued resolutions approving new Business Codes or amending existing ones for universal service provider or distribution licensees 13 times in the course of 2010.

### *Service quality*

Service quality control consists of four parts in the practice established by the Office. The four pillars vary considerably in terms of the area controlled, the method of regulation, and the consequences of non-compliance. Separate regulation applies to service continuity, customer relations, Guarantee Services and voltage quality.

In order to learn about the results achieved by controlling service quality, the Office completed the satisfaction survey of distribution licensee and universal service provider licensee customers for the fifteenth time in 2010. During the survey the opinion of 7600 household customers and 2600 industrial users were polled nationally. The survey methodology was identical with the procedure used in 2009, thus the results can be directly compared. On the basis of the consolidated figures it can be stated that 2010 was no different from earlier years.

Voltage level fluctuations, outages (in particular the long ones), responses to failure reports and the duration of failure elimination by licensees are still in the forefront of customer interest. User satisfaction moved to a clearly positive direction in terms of outages, information on scheduled outages, consumption metering and environmental protection activities.

Low scores were given to complaints and claims management and call centres of universal service providers both in the household and non household customer cohorts. Positive changes included the variability of partial invoices, arrival date of bills, personal customer service and providing information (homepage, local press). The satisfaction with transparency and comprehensibility of bills was clearly worse. (The survey took place at a time when users could not yet have received the bills rearranged according to Decree No 31/2010 (IV. 15.) KHEM on the visual appearance of billing documents applied by the universal service provider of electricity and natural gas)



The level of awareness concerning the possibility to switch traders reached 74% of the household customers and 84% of the non-household customers. Imminent plans to switch traders were envisaged by only 5% of household and 8% of non-household customers, a clear decline compared to last year. Payment willingness for 'greener' energy is still very low. Non-household customers held a better view on the accuracy of the bill and meter reporting services.

### Continuity, reliability of services and operating troubles

Financial incentives on continuous improvement of supply service quality to be provided by the electricity industry distribution licensees are based on the minimum quality requirements concerning the frequency and duration of non-scheduled breakdown of services and the rate of non-supplied power.

These indicators seem to stagnate in 2009 following the improvement experiences in 2008, and the aggregate national impact of favourable changes equals the size of occasional impairment. Following a fine of HUF 60 million imposed on it in 2009 and a fine of 50 million paid in 2008 E.ON Észak-Dunántúli Áramhálózati Zrt. had to pay a 1% system charge reimbursement penalty because average duration of outages in supply was more than 5% worse than the national average in spite of the fact that the Office disregarded the impact of outages due to extreme weather conditions when evaluating the performance.

According to the contents of its resolution, the Office will take no notice of a part of operating trouble incidents in case of extreme weather conditions. Evaluation of such exemptions shall take place by observing the rules of procedures provided for the cases qualified as 'other network troubles'. As a result, the Office granted exemptions in 2009 following considerate analyses considering all aspects of the cases. In summary it can be stated that distribution licensees make great efforts each year to meet the ever more stringent level of requirements included in the resolutions of the Office.

### Customer relations service quality

The second pillar of service level, customer relations service quality was re-regulated in 2008, accommodating the provisions of the Electricity Act taking effect at this time. No legal changes took place in 2010 which would have required the passing of new resolutions. Negotiations were carried out to interpret and correct already issued resolutions between the Office and the licensees. Data supply under the resolutions for 2009 was completed in July 2010. The evaluation can be viewed on the homepage of the Office.

The evaluation reflected that universal service provider licensees paid special attention to meet the indicators determining the level of service quality and thus they show an improving tendency. Customer service level improvement is indicated by the 34% growth of officers per 1000 customers at the customer service offices, resulting in a 39% drop in average waiting time during the same period. In contrast, the rate of cancelled bills and accounting invoices established by estimates is growing from year to year, the causes of which require further investigations. Based on the aggregated results the highest level service of universal service providers was provided by EDF DÉMÁSZ Zrt. in 2009.

Evaluation results show that distribution licensees paid special attention to comply with the indicators specifying the expected quality level, yet two of the 11 indicators were declining. In the case of complex information given in response to user reports the licensees were able to respond to 81% of the reports within 30, that is every fifth inquirer was answered only after more than a month. In two years time the average number of annual meter readings was reduced by 22% which may have contributed to the increasing ratio of cancelled bills and invoices established by estimates referred to with regard to universal service providers. The number of officers per 1000 customers at the customer service offices was increased by 33% in two years,

thus the decreasing average waiting time could be experienced in this group of licensees as well (-44%). According to the consolidated results the distribution licensee providing the highest level of service in 2009 was EDF DÉMÁSZ Hálózati Elosztó Kft.

Based on the evaluation, three licensees (ELMŰ Nyrt., ÉMÁSZ Nyrt., ELMŰ Hálózati Kft.) performed in 2009 so poorly compared to the expected service standards that the imposing a fine was justified. Considering mitigating causes and aggravating circumstances the Office fined the three companies to a total of HUF 55 million in 2010.

## Guaranteed Services

Based on the annual data supply concerning the quality requirements for individual users/customers, the system of the so-called Guaranteed Services (GS) the evaluation of the licensees' activities in respect of the resolution for the previous year was completed in August 2010 and can be viewed at the homepage of the office.

The GS resolutions of the Office issued in 2003 were renewed in line with the new legislation of 2008 for electric power distribution, universal service provider and trader licensees. In response to the increasing number of operating troubles occurring as a consequence of the extreme weather conditions the Office laid down the detailed rules in November 2009 – following several months long negotiations – of the requirement defined for licensees under the title GS II 'Elimination of electric power outages at multiple user locations'. Here the duration of periods after which users are entitled to financial compensation after long term outages due to extreme weather conditions was defined. Taking into account the time needed for preparing the distribution licensee information technology systems the payment of the penalty is made – with the exception of one parameter – automatically from 1 January 2010. Penalty payment will become automatic for this parameter from 1 January 2011, up to this date it is made upon request from the user. The GS resolution provides for the automatic penalty payment method from 1 January 2010 as follows: for 12 of the 13 minimum requirements in place for distribution licensees, for each of the five minimum requirements of universal service providers and of the 4 minimum requirements of trader licensees.

Distribution licensees DÉMÁSZ Hálózati Elosztó Kft. and ÉMÁSZ Hálózati Kft. did pay penalties automatically in each non-fulfilled cases in 2009 that is the payment rate was 100%. for the other four distribution licensees the rate of automatic penalty payment was between 86.1% and 95.9%.

Of the universal service providers ELMŰ Nyrt. provided the highest automatic payment rates (94.9%), while this figure is the lowest for E.ON Energiaszolgáltató Kft. (56.7%). Licensees paid out a total of more than HUF 89 million to users for reason of non-performance of the GS.

Consolidated figures of the GS for 2009 are seen in Table 7.

**Table 7:** Consolidated figures of Guaranteed Services

Licensee	Number of issues total	Number of non-performed issues	Rate of non-performed issues (%)	Rate of automatic penalty payment (%)	Amount of penalty paid (HUF)
DÉMÁSZ Hálózati Elosztó Kft.	1 427 873	2 330	0.16%	100.00%	15 119 040
ELMŰ Hálózati Kft.	3 159 912	1 956	0.06%	86.12%	6 150 000
ÉMÁSZ Hálózati Kft.	2 146 512	3 028	0.14%	100.00%	1 647 000
E.ON Dél-dunántúli Áramhálózati Kft.	1 491 236	19 182	1.29%	88.94%	12 812 000
E.ON Észak-dunántúli Áramhálózati Kft.	3 180 383	36 280	1.14%	90.44%	19 937 000
E.ON Tiszántúli Áramhálózati Kft.	2 031 139	22 264	1.10%	95.85%	14 720 000
<b>DSO total</b>	<b>13 437 055</b>	<b>85 040</b>	<b>0.63%</b>	<b>93.55%</b>	<b>70 385 040</b>
DÉMÁSZ Nyrt.	120 528	4 820	4.00%	69.23%	225 000
ELMŰ Nyrt.	982 690	38 862	3.95%	94.90%	9 980 000
ÉMÁSZ Nyrt.	379 616	11 910	3.14%	90.58%	765 000
E.ON Energiaszolgáltató Kft.	542 146	19 255	3.55%	56.70%	7 940 000
<b>Universal service providers total</b>	<b>2 024 980</b>	<b>74 847</b>	<b>3.70%</b>	<b>78.06%</b>	<b>18 910 000</b>
<b>Total all</b>	<b>15 462 035</b>	<b>159 887</b>	<b>1.03%</b>	<b>89.46%</b>	<b>89 295 040</b>

## Voltage quality

The Office initiated the adoption of measurements with 400 voltage quality meters in a rotational arrangement by the distribution licensees in 2003. The initiative launched a uniform voltage quality monitoring culture in this country. Based on the experiences gained the Office issued a 'Professional recommendation to set up a uniform voltage quality monitoring system' intending to maintain and continuously develop the forming voltage quality measurement culture. Reporting obligations and annual evaluation intend to promote continuous monitoring of measurements and the development of the network. Under the voltage quality monitoring system 585 metering equipment were engaged in low voltage and 157 pieces of equipment were used in medium voltage level systems in 2009.

Another form of voltage quality testing is reporting the number of users per ten thousand supplied with out-of-specification voltage levels for a period longer than 12 months. The Office monitors this requirement according to the resolution issued in 2005 entitled 'Determination of expected reliability level and minimum requirements for electric power supply'. Voltage quality of power delivered to users is thus monitored by the Office from these two aspects (actual quality of voltage and number of users with out-of-specifications voltage). The ratio of users supplied with out-of-specifications voltage for a longer period of time in 2009 was specifically high in the case of EDF DÉMÁSZ Hálózati Elosztó Kft. Substantial impairment of E.ON ÉDÁSZ Áramhálózati Zrt. was also a reason for concern and the actual cause of poor performance must be established by testing.

## Control inspections

Irrespective of the 76% increase of complaints concerning licensees in the electric power industry, the Office conducted controlling activities in a number of fields. Controlled fields in 2010 included compliance of requirements concerning consumers to be protected, management of billing complaints, performance of information obligations related to tariff changes,

management procedure applied to consumption meter failures, accuracy of data supply to the Office, managing automatic penalty payments according to the Guaranteed Services and management of glades around overhead lines. During these checks the Office established that records maintained by the licensees were sufficient to perform Guaranteed Services, the rules of procedure in place for fire clearance (glade) management was able to allow safe operation of networks and data supply from licensees complies with the contents of the relevant resolutions. The Office has not found any such deficiency in the course of the inspections – closed by a resolution – which would have justified imposing a fine. In the documents closing the 25 inspection projects in 2009 the Office ordered obligations to re-arrange work flows in several instances.

### *User complaints*

Due to sharing authorities, a part of household consumer complaints was shifted to the jurisdiction of the National Consumer Protection Authority (NCPA) from 1 January 2008 in the field of the electric sector and from 1 July 2009 in natural gas supply issues. In terms of contents claims are related more and more to contract violations in the past one and a half or two years. Investigation of these issues is still within the authority of the Office and not the NCPA. Additionally, the number of complaints from public users – still covered by the Office after sharing the authorities – was also increased. The latter usually concern several sites and thus investigation requires more time compared to simpler recurrent problems of household customer complaints.

Complaints related to switching traders emerged as well. Since such issues affect 3 licensees most of the time, their investigation was more complex and lengthy, requiring a deeper knowledge of the system. Complaints related to the status of consumer to be protected are ever more frequent and must be considered especially sensitive issues, in the case of which more considerate proceedings should be conducted due to their nature. Following the dramatic increase in 2007, customer complaints covered by the Office was temporarily reduced due to the sharing of authority with the NCPA, but it reflects an increasing trend again since.

Beside written complaints, the number of claims, requests for information or to take position received electronically through the website keeps growing as well. 566 such letters were received and 311 sent out in 2010. Beside written contacts a considerable number of telephone calls and personal visits to the ground floor reception room of the Office are recorded. The Office receives approximately 150 personal contacts and 3-4 thousand telephone calls annually.

Of the 1320 written complaints in 2009, 713 concerned licensees in the electric sector. This figure was 76% higher than the one in 2009. The Office instigated the official public administration proceedings in each case and passed a resolution each time. According to these resolutions, 55% of claims concerning most frequently contract violations of distribution licensees and 38% of complaints concerning mainly billing issues of universal service providers proved to be well grounded.

## 2. Regulation and operation of the gas market

### 2.1 Regulation

#### *Licensing*

The Office adopted 146 resolutions for natural gas industry companies in 2010 related to licensing and supervision. The Office issued 9 new operating licenses in the field of natural gas supply in 2010.

Thirteen licenses were modified and one withdrawn. One endorsement resolution was issued by the Office for the installation of a purpose-built pipeline. Resolutions issued by the Office enabled operation of 9 new natural gas traders, thus increasing the overall number of natural gas trader licensees to 40 in 2010.

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

Border crossing point capacities:

- Western entry point – Mosonmagyaróvár: 13.1 million m<sup>3</sup>/day
- Eastern entry point - Beregdaróc: 56.3 million m<sup>3</sup>/day
- South-eastern bidirectional border crossing point – Csanádpalota: 4.8 million m<sup>3</sup>/day
- Southern bidirectional border crossing point – Drávaszerdahely: 19.1 million m<sup>3</sup>/day.

Average gas flows at the border crossing points in 2010:

- Mosonmagyaróvár: an average of 12 million m<sup>3</sup>/day import gas for domestic use and + 0.3 million m<sup>3</sup>/day transit to Romania;
- Beregdaróc: an average of 13.71 million m<sup>3</sup>/day import gas for domestic use + 5.9 million m<sup>3</sup>/day transit to Serbia and Bosnia-Herzegovina;
- Csanádpalota: 0.3 million m<sup>3</sup>/day transit to Romania.

Long term natural gas import contracts and their respective impacts:

Panrusgas	9000	million m <sup>3</sup> /year	until 2015
E.ON Ruhrgas	500	million m <sup>3</sup> /year	until 2015
Bothli Trade AG	900	million m <sup>3</sup> /year	until 2014
Gaz de France	600	million m <sup>3</sup> /year	until 2012

The long term transit contract concluded with Serbia will expire in 2012 and engages a transmission capacity of 12 million m<sup>3</sup>/day permanently.

Contractual congestions occurred at the border crossing point at Mosonmagyaróvár in 2010. The main reason for this was the large volumes of liquefied natural gas (LNG) made available in Western Europe from 2009 on, which could be purchased by traders on the spot markets cheaper than the Russian gas. Due to its large volumes of non-conventional gas production the United States has become self sufficient in terms of natural gas by 2009, therefore LNG exporters (Trinidad, Qatar, Egypt) were forced to sell their stocks in Western Europe. This is the cause

behind the cheaper gas on the spot market and the fact that contractual congestion in 2010 occurred not at the eastern border crossing like before, but rather on the Western HAG line (the crossing point at Mosonmagyaróvár).

The Gas Supply Act introduced and regulated daily natural gas and capacity trading. The aim of this measure was to put the commercial transactions necessary for the balancing of the cooperating natural gas system on a market base. Rules governing capacity booking on the cooperating natural gas system and the access to the system are detailed in the GET Imp. Decree and the Operating and Commercial Code (hereinafter referred to as: Network Code). Pursuant to them the daily natural gas and capacity trading market (hereinafter referred to as: NFKP) was launched on 1 July 2010. All market players became a member to NFKP. Opening of the daily market strengthens transparency of system balancing, but the financial implications entail significant costs for members. The NFKP has an operating code approved by the Office.

### Regulating the functions of transmission and distribution companies

The high pressure transmission pipeline system is operated by a single company (FGSZ Földgázszállító Zrt.). The company held two operating licenses in 2010 issued by the Office: natural gas transmission license and system operation license.

General rules of natural gas are laid down and the conditions to be met for issuing natural gas transmission licenses are listed in detail in the Gas Supply Act. Beside transporting gas, the most important task of the natural gas transmission company is daily balancing. Balancing gas is the natural gas used by the transmission company to balance the differences between the gas injected and withdrawn to and from the system by the users. Pursuant to the law the activity related to securing balancing gas is not deemed to be a commercial activity.

The transmission company has the following tools at its disposal to restore system balance:

- hydraulic balancing tools offered by the system users through the NFKP,
- renomination,
- balancing gas,
- limitation.

The transmission company – to fulfil its tasks – operates an Internet based system ensuring data flows necessary for maintaining the hydraulic balance of the natural gas system and for administering nominations and accounting.

Accounting of NFKP transactions is ensured by a clearinghouse (KELER Zrt.). KELER Zrt. is a credit institution specialised in clearing and other services. Financial settlement of NFKP transactions and daily unbalancing positions is provided by a KELER Zrt. subsidiary, KELER KSZF Kft.

Operation of natural gas distribution systems is accomplished by nine distribution system operators (Alpiq Csepeli Erőmű Kft., E.ON Dél-dunántúli Gázhálózati Zrt., ÉGÁZ-DÉGÁZ Földgázelosztó Zrt., FŐGÁZ Földgázelosztási Kft., ISD POWER Energiatermelő és Szolgáltató Kft., E.ON Közép-dunántúli Gázhálózati Zrt., Magyar Gázszolgáltató Kft., OERG Kft., TIGÁZ-DSO Földgázelosztó Kft.).

The Gas Supply Act provides for the general rules of operation for natural gas distribution companies including licensing and cooperation obligation of the licensee to ensure development and operation of the cooperating natural gas system. The law lists in details the cases when the distribution service provider may refuse connection of a customer and commencement of distribution or continuation of services to an already connected user. The distribution company will maintain records on the user points withdrawing gas from the distribution network, their typical and mandatory particulars, and shall transfer such data upon request to the customer



withdrawing gas at the user point or to the trader supplying gas to him. The Gas Distribution Code constituting Annex No 1 to the GET Imp. Decree contains detailed rules on natural gas distribution services, legal relations between distribution companies, users to be connected or already connected to the gas supply system, universal service providers and traders, and the minimum requirements of content to connection and distribution contracts.

### *Unbundling of operations*

Pursuant to the provisions of the Gas Supply Act unbundling of accounting is a mandatory act to all businesses in the natural gas sector, no exemption can be granted. If natural gas transmission, distribution and storage is conducted by a single vertically integrated company, licensed operations shall be provided through a legally unbundled organisation with independent organisational chart and decision making, separated from other operations not directly related to them, except

- a) the transmission company holding system operation license,
- b) gas traders with less than 100 000 customers,
- c) piped PB-gas service providers.

FGSZ Földgázz szállító Zrt. is a legally unbundled subsidiary of MOL Nyrt.

Under Article 6 of the GET Imp. Decree transmission operations should be carried out in an unbundled, separate organisation and by independent decision making process. System operation managers shall not participate in any other licensed gas sector activities directly or indirectly. The system operator is required to provide the same information flow to affiliates as to any other player on the market.

The natural gas transmission company was physically separated (registered seat, office building) from any other business organisation conducting natural gas operations.

Act No VII of 2010 was published in January 2010 and contained an amendment to the Gas Supply Act related to the unbundling of activities to accommodate the provisions of the Third Energy Package of the European Union. Office staff conducted continuous coordinated legal preparatory activities in 2010 related to the implementation of the Third Energy Package. The Third Energy Package provides for the uniform implementation and transposition of legal provisions in Member States from 3 March 2011.

Among the ten natural gas distribution system operator licensees there are five major regional companies with more than 100 000 customers each. The five large companies completed legal unbundling in 2007, i.e. distribution and trading takes place in separate companies.

Nine of the former public utility service providers applied for and was granted by the Office universal service provider licenses. Each of them holds competitive market trader licenses as well, operated under unbundled accounting arrangements.

The vertically integrated company of the E.ON Ruhrgas International GmbH subsidiary registered in Hungary (E.ON Hungária Zrt.) is the former public utility wholesale trader E.ON Földgáz Trade Zrt., which is legally completely unbundled from the gas storage licensee E.ON Földgáz Storage Zrt. Distribution system operators E.ON KÖGÁZ Zrt. and E.ON DDGÁZ Zrt. are also legally unbundled from the trader E.ON Energiaszolgáltató Kft.

## 2.2 Competition

### Wholesale market

National consumption of natural gas and source composition in 2010 are illustrated by the data of Table 8.

**Table 8:** Composition of national natural gas consumption patterns in 2010 (billion m<sup>3</sup>/year)

<b>Annual national gas consumption:</b>	<b>11.898</b>
Domestic production	2.492
<b>Import</b>	<b>9.406</b>
eastern direction (Beregdaróc)	5.005
western direction (Mosonmagyaróvár)	4.401

Import resources are mostly of Russian origin, even a large part of the natural gas purchased from Gaz de France and E.ON Ruhrgas and delivered from Baumgarten, Austria through the HAG pipeline is of Russian origin in terms of its molecular composition.

The ratio of domestic production and import in 2010 was 20 and 80%, respectively.

The volume of Western import on the HAG pipeline approached the amount of gas imported from the East due to large volume purchases of spot market LNG which was cheaper than the Russian gas.

In its Decision passed on 21 December 2005 the Directorate General for Competition in the European Commission (Case No. COMP/M.3696-E.ON/MOL) approved full acquisition of MOL Földgázellátó Rt. and MOL Földgáztároló Rt. (national gas distribution and storage companies) by E.ON Ruhrgas International AG (hereinafter referred to as: ERI) only conditionally.

One important condition was the implementation of a 'Gas Release' programme. This means that ERI is obliged to offer an annual amount of 1 billion m<sup>3</sup> for sale on the Hungarian gas market throughout a period of 8 years (2006-2013). In the course of programme implementation auctions are to be held in the said years, where the annual 1 billion m<sup>3</sup> volumes are to be broken down to selling lots as follows:

- 5 x 100 million m<sup>3</sup> lot,
- 5 x 50 million m<sup>3</sup> lot,
- 10 x 25 million m<sup>3</sup> lot.

E.ON affiliates are not allowed to participate at the auctions directly or indirectly.

Successful bidders may conclude contracts with ERI under the following terms and conditions:

- Contracted amounts of gas can be delivered during two years in two equal parts at the import entry points – Beregdaróc 80%, Mosonmagyaróvár 20%.
- Supply contracts to customers shall provide the same flexibility as the upstream contracts of MOL Földgázellátó Rt. do.

In March 2010 E.ON Földgáz Trade Zrt. concluded its fourth natural gas auction administered by an international information technology company like in former years.



## Retail market

After the expiry of the transition period on 30 June 2011 stipulated by the Gas Supply Act users holding district heat generation licenses and from 30 June 2010 customers exceeding a consumption rate of 20 m<sup>3</sup>/hour but not reaching 100 m<sup>3</sup>/hour are not eligible to universal service provision any more.

The number of customers switching service providers and entering the competitive market grew to 451 811 in 2010, more than 400 000 of which are household customers quitting universal services.

By the end of 2010 the company providing supplies to the overwhelming majority of the household customers leaving the universal service, EMFESZ Kft. approached total bankruptcy. The transmission system operator and two distribution system operators indicated in December that access to the respective systems operated by them will be suspended for EMFESZ Kft. due to its failure to pay system charges.

Gov. Decree No 48/2010 (II. 26.) on the procedure to be applied due to the existence of a situation threatening natural gas supply of users in case the operation of the natural gas trader becomes impossible was published in February 2010. Pursuant to this Decree the Office assigned last resort service providers to ensure safe and continuous supply to customers.

## 2.3 Security of supply

The greatest measured national natural gas consumption level ever occurred on 8 February 2005 with 89.5 million m<sup>3</sup>/day. Compared to the figures above it can be seen that the current capacity of the domestic natural gas supply system is much larger than that and thus the technical background to security of supply was appropriate.

The Gas Supply Act handles disturbances in the cooperating natural gas system in a step-wise manner. In case of minor troubles licensees are obliged to take action within their own scope of authority. In emergency situations when a large part of users may be left without supply – such as a substantial omission of import deliveries – emergency actions may be ordered by the Government.

**Table 9:** Maximum technical capacity of the national natural gas supply system on 15 October, 2010 (million m<sup>3</sup>/day):

Domestic production	10.5
Import Mosonmagyaróvár (western direction)	13.1
Import Beregszász (eastern direction)	56.3
Import Csanádpalota (south- eastern direction)	4.8
Import Drávaszerdahely (southern direction)	19.1
Commercial gas storages	59.1
Strategic storage	20.0
<b>TOTAL</b>	<b>182.9</b>

## *Natural gas transmission*

As a result of the long distance transmission pipeline development projects of the transmission system operator FGSZ Földgázszállító Zrt., two new cross border gas transmission lines were installed in 2010 thus contributing to the diversification of the import possibilities and increasing the security of supply.

The 700 mm diameter and 4.8 million m<sup>3</sup>/day capacity pipeline built to Romania is operational since 1 July 2010 and has bidirectional transmission capabilities. In the second stage of the investment project when compressors will be added, the transmission capacity will be increased to 12.1 million m<sup>3</sup>/day.

The 800 mm 19.1 million m<sup>3</sup>/day Croatian interconnector was completed in December 2010 allowing for bidirectional transport. The pipeline is ready to operation.

Additionally, design works for a new northern border crossing pipeline were started as well. The capacity of the Slovak interconnector will be 6 million m<sup>3</sup>/day, to be increased to 14.4 million m<sup>3</sup>/day after the installation of the compressors in the second stage of the investment.

## *Strategic storage of natural gas*

Act No XXVI of 2006 on strategic stockpiling of natural gas adopted by the Parliament in March 2006 provided for the storage of 1.2 billion m<sup>3</sup> natural gas and the establishment of the necessary underground storage facility up to 2010. Strategic natural gas reserves should be placed in storages with a withdrawal capacity of 20 million m<sup>3</sup>/day for a period of at least 45 days. The strategic stockpiles provided for in the law serve exclusively the safe supply of household and communal consumers.

Up to 31 December 2009 strategic natural gas volumes were determined by the free available capacity of the commercial storages, which could not be less than 300 million m<sup>3</sup> between 1 October 2007 and 31 December 2009, provided the appropriate amount of free capacity was available.

In the event such amount could not be ensured using the remaining and unbooked storage reserves, pursuant to the Act it could be replaced by an equivalent amount of petroleum products, i.e. heating oil. The Hungarian Hydrocarbon Stockpiling Association (hereinafter referred to as: HUSA) announced and granted to MOL Nyrt. a tender according to the law to implement a strategic storage facility. HUSA and MOL created MMBF Zrt. to build and operate the strategic storage.

Execution works started in 2007 at the Szőreg-I site, part of the Algyő gas field. The project was continued in 2008-2009 by the drilling of 44 new bifunctional (production and injection) wells. The project progressed as scheduled and with the completion of the compressor technology commercial injection started from 1 October 2009. By the end of the year the required volume of 1.2 billion m<sup>3</sup> was injected. Thus the strategic natural gas reserves stipulated in a separate piece of law were stockpiled at the Szőreg-I site by 1 January 2010 in compliance with the law. The reserves were not needed during the year.

## Commercial natural gas storage

MMBF Zrt. applied for and was granted by the Office a commercial gas storage license as well, which – beside the strategic supplies – allows for the storage of an additional 700 million m<sup>3</sup> of working gas in Szőreg-I. The license allocated 5 million m<sup>3</sup>/day commercial withdrawal capacity to this amount. Injection of the commercial stocks was started in Spring 2010 and completed by 15 October, the start of the heating season.

It is of paramount importance and reassuring for reasons of security of supply that the system can provide two thirds of the daily national peak demand from the commercial storages.

**Table 10:** Capacity of the Hungarian commercial natural gas storage facilities following October 2010

Name of underground gas storage	Working gas stock available for storage (million m <sup>3</sup> )	Withdrawal capacity (million m <sup>3</sup> /day)
HAJDÚSZOBOSZLÓ	1440	20.8
KARDOSKÚT	280	3.2
PUSZTAEDERICS	340	3.1
ZSANA	2170	28.0
SZŐREG	700	5.0
<b>Total:</b>	<b>4930</b>	<b>59.1</b>

## Specification of the gas limitation sequence

The Office specifies a succession of limitations in September each year to be applied in case of supply disturbances by which continuity of gas supply to certain high priority consumers can be secured. The Office would consistently qualify any power generating unit which are covered by legal requirements to stockpile liquid fuel reserves as alternative energy sources sufficient to operate for 16 days continuously as consumers to be limited in the first place. The 2010 limitation sequence has been prepared pursuant to Government Decree No 265/2009. (XII. 1.) on the limitation of natural gas withdrawal, the use of strategic natural gas supplies and other measures required in case of emergency situations in natural gas supply, thus defining the system of limitations more considerably.

## 2.4 Price preparation, pricing

A new natural gas pricing period was started from 1 January 2010, the framework of which concerning natural gas system charges is determined by Decree No 74/2009. (XII. 7.) KHEM. The framework rules for price margins to be enforced under the universal service provision and actual initial values in effect from 1 January 2010 were determined by Decree No 29/2009 (VI. 25.) KHEM on pricing of prices related to universal service provision on the natural gas market (hereinafter referred to as: US Decree).

## *Universal tariff rates*

The Office established universal service tariff rates for Q1 and Q2 of 2010 in line with the provisions of the Gas Supply Act – in effect at the time – upon the request from the universal service providers. Act No LV of 2010 amending Act No XL of 2008 on natural gas supply and Act No LXXXVI of 2007 on electric (hereinafter referred to as: Amended Act) took effect on 21 June 2010, which amended the provision concerning the price determination of universal services and following the effective date of the Amended Act it was established by the Minister in charge. Therefore the Office issued an order on 30 June 2010 in which the proceedings instigated upon the tariff rate applications of the universal service providers for Q3 of 2010 was terminated due to lack of authority. The Minister in charge did not amend universal service tariffs in Q2 2010, thus tariffs established by the Office in a resolution passed on 25 March 2010 remained effective up to the end of the year. Such tariffs were promulgated on 3 December 2010 in the amendment of Decree No 28/2009 (VI. 25.) KHEM on determining the tariff rates related to universal service provision on the natural gas market.

The tariff rate charged for universal service provision in the natural gas market includes the recognised special price of natural gas as a market product and – as opposed to universal services in the electricity sector – specific system charges.

## *Offer price*

As part of the universal service provision model launched in July 2009, Article 141 of the Gas Supply Act provided for an offer obligation to the unbooked capacities of the trader possessing the sources of the former public utility wholesale trader in order to secure supply to universal service customers.

The highest price of the offered natural gas source had to be established by the Office in a resolution. The highest possible price for the natural gas source covered by the offer obligation in 2010 was established on 19 March for both E.ON Földgáz Trade Zrt., and TIGÁZ Zrt. As the US Decree was amended with effect of 25 March 2010, the Office amended the respective resolutions on 30 March 2010 accordingly.

Also as a consequence of the US Decree amendment, a new regulatory component was added to the decree (taking into account the so called storage effect) which was already considered by the Office upon passing the resolution on the offer price. E.ON Földgáz Trade Zrt. holds that this provision was of retroactive force and hence, anticonstitutional, also having the opinion that E.ON Földgáz Trade Zrt. was not covered by the US Decree. The claim was accepted by the court and the Office ordered to conduct new proceedings.

Under the amended Act from 21 June 2010 on the price of the natural gas sources offered by the trader holding the sources of the former public utility wholesale trader (former public utility wholesale trader) is to be established by the Minister in a Decree. The price of the natural gas source offered by the former public utility wholesale trader – in addition to the offer submitted in March 2010 – for Q3 and Q4 2010 was promulgated by the Minister in Decree No 3/2010 (VI. 30.) KHEM on the cost based prices of natural gas sources offered to universal service providers for sale.

Decree No 19/2010 (XII. 3.) NFM on the volumes and prices of natural gas sources offered for sale to universal service providers and of natural gas produced domestically, as well as on the scope of parties entitled and obliged to use it (hereinafter referred to as: Offer Price Decree), promulgated pursuant to the 4 December 2010 amendment of the Gas Supply Act and effective since the date of publication, provided for the price of the natural gas source offered by the public utility wholesale trader and the natural gas produced from hydrocarbon fields put into

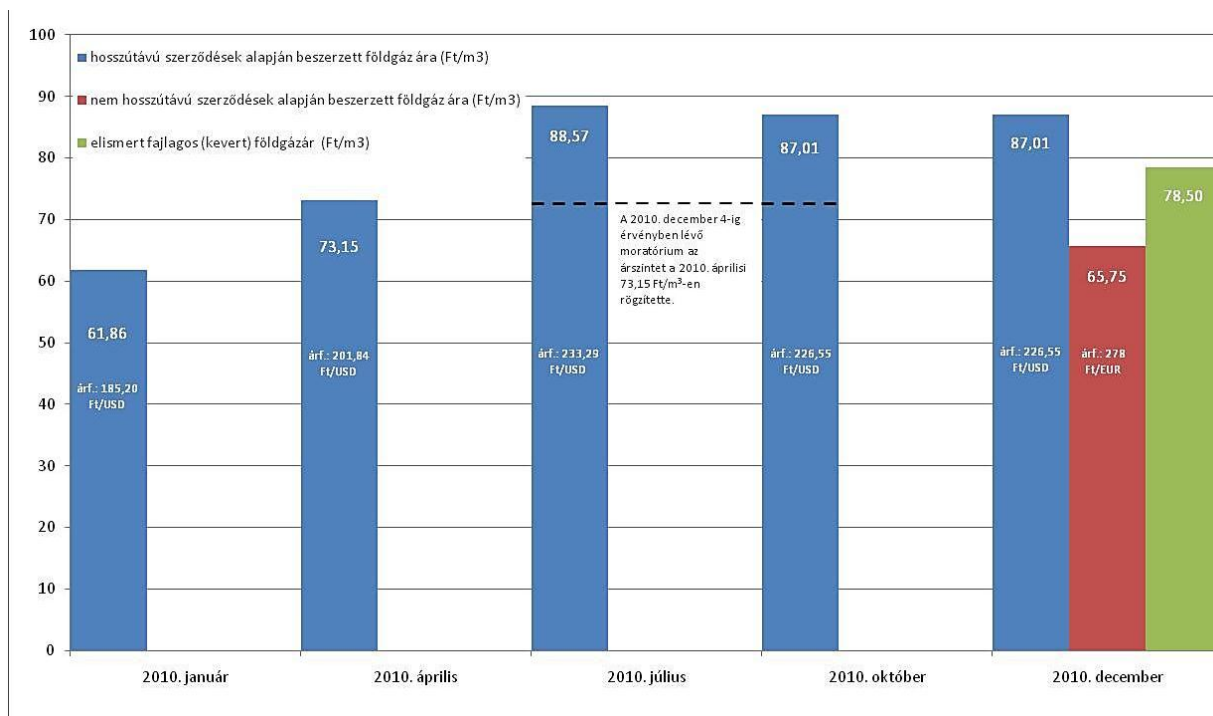
production before 1 January 1998 and for the volume of natural gas to be transferred to the parties.

This amendment of the law provided the opportunity for universal service providers to renegotiate their contracts with due regard to the volumes and charges laid down in the Offer Price Decree. The amendment also provided for the new contracts to be of supply type which can not be cancelled before 30 June 2011.

### *Natural gas price formula*

According to the state of Decree No 29/2009 (VI. 25.) KHEM on pricing of tariffs related to universal service provision on the natural gas market effective from 4 December 2010, the specific costs of natural gas recognised in the universal service rates in the future is not based entirely on the price set in the long term purchase agreements indexed to petroleum products; the futures market prices on the Endex TTF Gas (Dutch Gas Exchange) and the prices at the Central European Gas Hub (commercial 'hub' at Baumgarten) will also be taken into consideration. The so called 'mixed' specific natural gas prices consist of long term import contract prices with a weight of 60%, and the natural gas price established on the markets referred to above with a weight factor of 40%. Such division of the recognised specific natural gas costs will be retained as long as the price of the natural gas procured under the long term contracts exceeds the prices on the markets considered in the regulation.

The rules for the establishment of the HUF/USD exchange rate associated with the universal service rates were also modified. According to the state of Decree No 28/2009 (VI. 25.) KHEM on determining the tariff rates related to universal service provision on the natural gas market effective from 4 December 2010, the HUF/USD and HUF/EUR rates to be applied and the associated reference period are published by the Minister. Provided the exchange rate exceeds the average daily rate within the reference period, a lower than published rate will be applied.



**Figure 6:** Specific natural gas price and its components recognised in the universal service provision price (HUF/m<sup>3</sup>)

*Blue:* Natural gas prices procured under the long term purchase agreements in HUF/m<sup>3</sup>

*Red:* Natural gas prices procured under arrangements other than the long term purchase agreements in HUF/m<sup>3</sup>

*Green:* Recognised mixed specific natural gas costs in HUF/m<sup>3</sup>

*Between two blue columns:* The moratorium in effect up to 4 December 2010 fixed the costs at the 73.15 HUF/m<sup>3</sup> of April 2010.

*On the columns:* Exchange rates HUF/USD and HUF/EUR

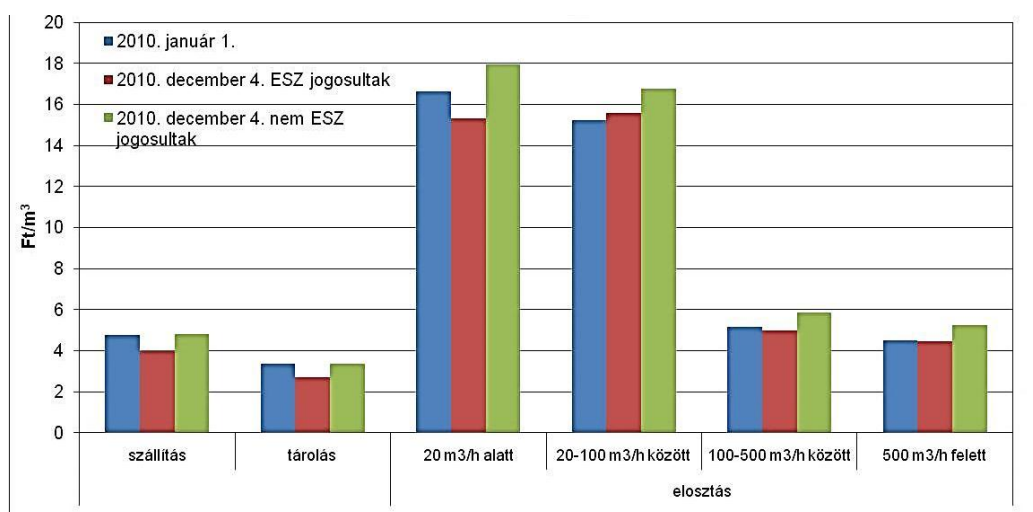
*Under the columns:* January, April, July, October and December 2010

### System charges

With the amendment of Decree No 31/2009 (VI. 25.) KHEM establishing the charges for system use for the natural gas transmission system on 1 July 2010, the transition from accounting based on MJ (heat amount) instead of cubic metre volumes between system users and system operators was completed. Heat amount based accounting eliminated the sanctions causing a lot of troubles earlier on with regard to daily balancing and capacity booking which resulted from the changes in the calorific values occurring at various points of the system.

With respect to storage fees a methodological change took effect from 1 October 2010. A three component formula based on capacity booking ratios replaced the former formula concerning the calculation of the storage peak and working gas charges. The first component is the factor concerning working gas capacities, the second component reflects injection capacities (this is a new components which was not included for system users to pay for), while the third component concerns withdrawal capacities. With the application of the new formula individual charges will be established for each market operator depending on the booking particulars and thus companies are encouraged to optimise their bookings.

The increase of transmission entry capacity fees in December in excess of 7% applicable to users not entitled to universal services was justified by the decrease of capacities booked for the individual entry points and the increase of transmission fee by the increase in natural gas prices.



**Figure 7:** Average prices for system usage in 2010

*Blue:* 1 January 2010

*Red:* 4 December 2010 customers covered by US

*Green:* 4 December 2010 customers not covered by US

*Under the columns:* transmission, storage, distribution: below 20m<sup>3</sup>/h, between 20 and 100 m<sup>3</sup>/h, between 100 and 500 m<sup>3</sup>/h, above 500 m<sup>3</sup>/h

## Changes concerning pricing of system use

Decree No 74/2009. (XII. 7.) KHEM determining the regulatory framework for the use of the natural gas system was amended at several points concerning the former mechanism. One of them changed the regular tariff correction of gas industry companies so that correction is now only possible when the respective inflation rate exceeds 5% (and only for the part above 5%). A double arrangement for system charges appeared in the regulation from 4 December 2010. While the rate of recognised capital costs for each year is 4.5% for calculating tariffs of customers eligible to universal services, for those not eligible the return rate did not change, i.e. it is 8.78% for transmission, 10.04% for storage and 8.29% for distribution.

## Balancing mechanism

More detailed regulatory provisions were provided for the balancing mechanism in place between distribution system operators in cases where the distribution system has a low specific exploitation rate, and the dates for calculation and notification related to the balancing mechanism were corrected on the basis of the experiences gained in the former period.

Resolutions on the final allocation of distribution charge revenues for the year 2009 were issued in August 2010. The preliminary resolution issued in October 2009 for the year 2009 was contested by the following licensees: ÉGÁZ-DÉGÁZ Földgázelosztási Zrt., Magyar Gázszolgáltató Kft., and TIGÁZ Zrt. ÉGÁZ-DÉGÁZ Zrt. did not raise any objection against the final resolution and performed the respective provisions, terminating the suit filed against the preliminary resolution upon mutual agreement. The other two licensees in questions contested the final resolutions even though according to the provision applicable to MAGÁZ Kft. this licensee was in fact entitled to payments.



The balancing mechanism was duly applied in 2010 according to the provisions laid down in the preliminary resolutions issued in February 2010, the only party subject (TIGÁZ Zrt.) to in-payment performed such monthly obligations in due time. MAGÁZ Kft., not subject to either in-payment or payment, contested the resolution applicable to it in court. Final resolutions for 2010 shall be issued by the Office before 30 June 2011.

### Profit limit and profit reimbursement

The amount of profit to be reimbursed by FGSZ Földgázszállító Zrt. to system users was HUF 1710 million. In order to avoid too high volatility of system charges in the individual gas years, the absorption of this profit – i.e. distribution among customers – is enforced by the Office throughout the entire pricing period, i.e. the full amount will be deducted up to 31 December 2013 the latest. A quarter of the aforementioned amount was taken into consideration as a reduction item of the justified sales revenue of the entry capacity fee when the applicable charges were specified in December.

## 2.5 Public service obligation and customer protection

### *Approval of Codes*

The Gas Supply Act was amended 7 times, the GET Imp. Decree 5 times in 2010. These changes required continuous adaptation of the Business Codes of licensees to the current legislation. Business Codes were amended under a broad, multiple round negotiation procedure with the participation of the CEIR user side members. The Office issued 8 resolutions in 2010 to universal service providers and distribution licensees approving new or amending existing Business Codes.

### *Service quality*

Service quality control consists of three parts in the practice established by the Office in the gas industry. The three pillars vary considerably in terms of the area controlled, the method of regulation, and the consequences of non-compliance. Separate regulation applied to service continuity, customer relations and Guarantee Services.

In order to learn about the results achieved by controlling service quality, the Office completed the satisfaction survey of distribution licensee and universal service provider licensee customers for the fifteenth time in 2010. During the survey the opinion of 7600 household customers and 2600 industrial users were polled nationally. The survey methodology was identical with the procedure used in 2009, thus the results can be directly compared. On the basis of the consolidated figures it can be stated that 2010 was no different from earlier years.

Distribution licensee activities like service continuity and exact metering practices are still in the forefront of customer interest. User satisfaction moved to a clearly positive direction in terms of consistency in natural gas quality, but the views on the information received related to maintenance works were less positive.

Users were most interested in quick and competent operation of customer services, comprehensibility of the bills and ensuring the opportunities to complaints when asked about universal service providers. A positive change was reflected in better scheduling the mailing of bills, but the quality of information provision concerning the contact details of interest representation organisations and the possibility to change partial bills declined.



A new tendency is the need for Internet based administration, but experiences gained on this did not improve over the last year. The level of awareness concerning the possibility to switch traders reached 89% for household customers and 92% for non-household customers. Imminent plans to switch traders were envisaged by only 9% of household and 12% of non-household customers.

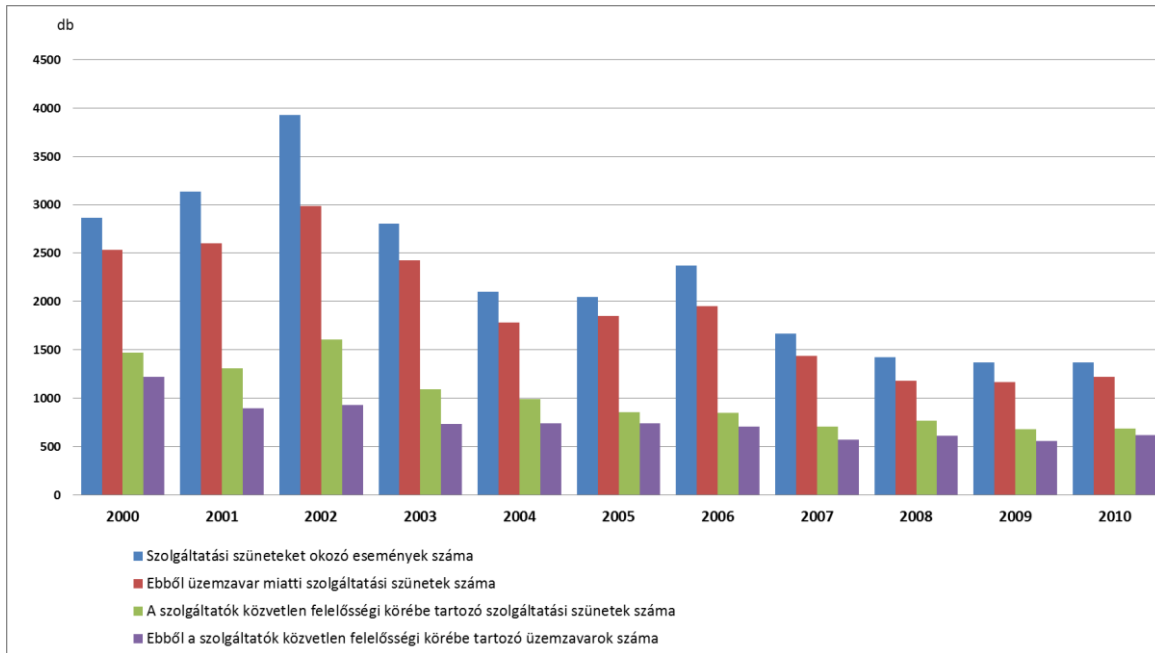
### Continuity and reliability of services, operating troubles

Consumers need continuous supply of services, i.e. uninterrupted availability of natural gas. However, various accidental or scheduled service disruptions or disruptions experienced due to other causes are naturally pertaining to piped natural gas supply. Disruptions may be caused by operating troubles or by other activities such as maintenance and reconstruction works etc. Some of the causes have direct connections to the service providers, others are independent from them. The quality of physical flows in fixed line natural gas supply can be illustrated with the causes, times and durations of service disruptions.

**Table 11:** Number of incidents causing outages in natural gas supply (incident/year)

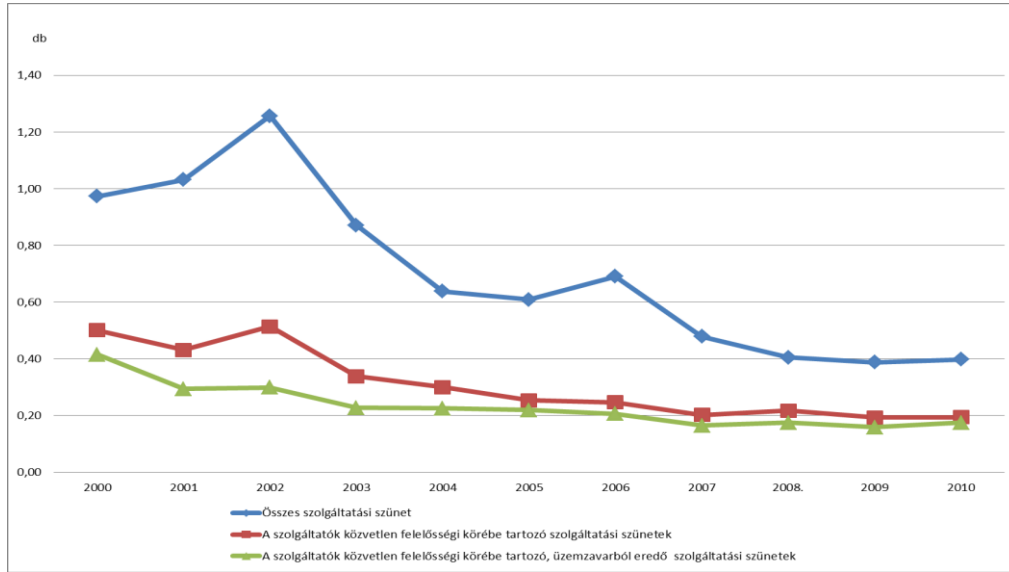
Denomination/year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Number of incidents causing disruption of services	2862	3138	3924	2802	2103	2049	2368	1666	1424	1368	1371
Of this: Disruption of services due to operating troubles	2532	2604	2988	2424	1786	1848	1953	1440	1178	1164	1221
Disruption of services within the direct scope of responsibility of the service providers	1473	1312	1607	1090	989	853	847	705	766	680	685
Of this: Operating troubles within the direct scope of responsibility of the service providers	1222	894	933	731	743	738	707	574	614	560	619

The number of service disruption incidents is illustrated on Figure 8 on the basis of data in the table above. The figure shows that service disruptions burdened customers sometimes more and sometimes less. The rate and absolute value of service disruptions within the direct scope of responsibility of the service providers grew over the first half of the investigated period, then was reduced again. The figure also shows the frequencies of operating troubles resulting in service disruptions which are permanently lower than the total number of service disruptions.



**Figure 8:** Quantitative data related to incidents causing outages in natural gas supply services, event/year  
*Blue: The number of incidents causing service disruption, Of this:*  
*Red: Disruption of services due to operating troubles,*  
*Green: Disruption of services within the direct scope of responsibility of the service providers,*  
*Purple: Of this: Operating troubles within the direct scope of responsibility of the service providers*

The physical process of piped natural gas supply services are qualified by the specific parameters per 1000 consumer of the number of incidents and the duration of service disruptions caused by them. The frequency and duration at national level at which consumers are deprived of the service are illustrated on Figures 10 and 11 for informative purposes. Specific number and duration of service disruptions varied for the total number of service disruptions across the investigated period, yet incidents within the direct scope of responsibility of service providers were lower in numbers and showed a continuously improving tendency.

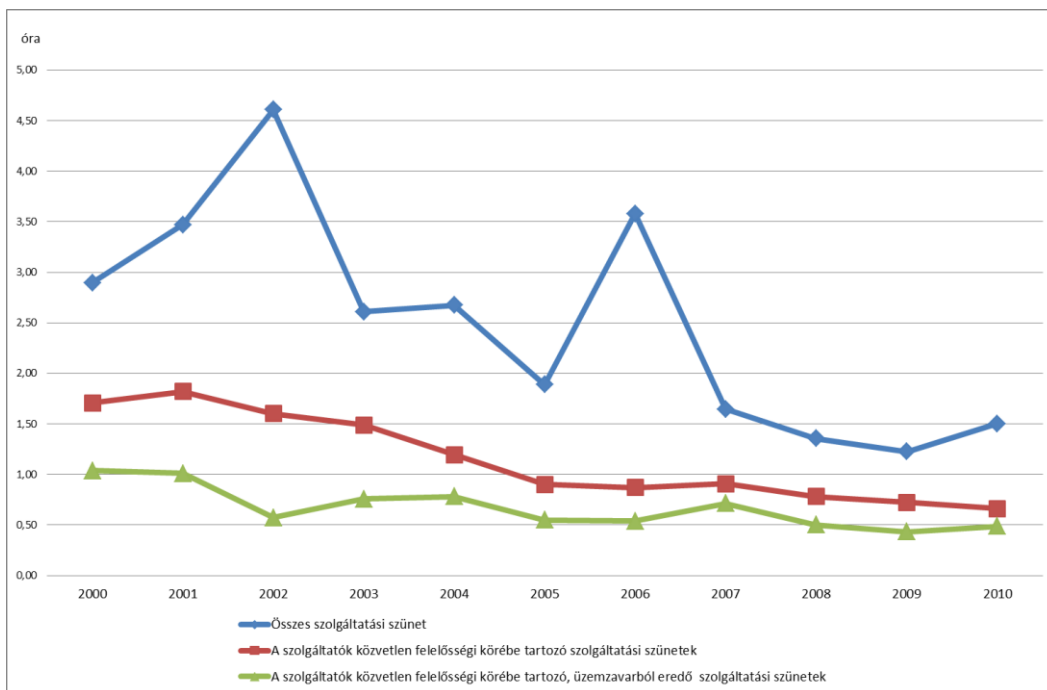


**Figure 9:** Trends in the number of incidents causing outages in natural gas supply services per 1000 customers (incident/1000 customers/year)

*Blue: Total interruptions*

*Red: Interruptions with direct responsibility of the supplier*

*Green: Interruptions with direct responsibility of the supplier, due to breakdowns*



**Figure 10:** Trends in the duration of incidents causing outages in natural gas supply services per 1000 customers (hours/1000 customers/year)

*Blue: Total interruptions*

*Red: Interruptions with direct responsibility of the supplier*

*Green: Interruptions with direct responsibility of the supplier, due to breakdowns*

## Customer relations service quality

The Office issued resolutions concerning the expected service quality standards and minimum quality requirements of customer relations in 2009. Pursuant to these resolutions licensees are obliged initially to submit data of 2010 up to 31 March 2011.

## Guaranteed services

The third pillar of service quality management was introduced in the natural gas industry in 2010. Considering the novelty of such rules the Office paid special attention and care to establish the directions of regulation and control and negotiations with licensees and consumer protection organisations. Issue of the resolutions was preceded by discussions in three rounds. As a last step of the regulatory process the Office issued 16 resolutions to the licensees in the gas sector related to the Guaranteed Services. Guaranteed Services performance will be first evaluated in 2011.

## *Control inspections*

Considering that complaints concerning gas industry licensees reflect a growing trend for years – from 2009 to 2010 the number of such complaints grew by 24% –, and due to the limited resources available, the Office could conduct inspection activities only to a limited extent in this sector, focusing mainly on the problems emerging because of EMFESZ Kft. Part of the tasks to be accomplished in the future include organisation of regular checks on industry licensees, conducting inspection visits, application of sanctions as appropriate, and – as a precondition to all these measures – ensuring the resources necessary for the inspection activities.

## *User complaints*

Due to sharing authorities, from 1 July 2009 a part of household consumer complaints was shifted to the jurisdiction of the National Consumer Protection Authority (NCPA). In terms of contents claims are related more and more to contract violations in the past one and a half or two years. Investigation of these issues is still within the authority of the Office and not the NCPA. Additionally, the number of complaints from public users was also increased which is still covered by the Office. The latter usually concern several sites and thus investigation requires more time compared to simpler recurrent problems of household customer complaints.

Complaints related to switching traders emerged as well. Since such issues affect 3 licensees most of the time, their investigation was more complex, lengthy requiring a deeper knowledge of the system. Complaints related to the status of consumer to be protected are ever more frequent and must be considered especially sensitive issues, in the case of which more considerate proceedings should be conducted due to their nature. Following the dramatic increase in 2007 complaint reports from customers within the scope of authority of the Office was temporarily reduced due to the sharing of authority with the NCPA, but it reflects an increasing trend again since.

Details concerning user complaints are contained in the Chapter of the same title in the electric power part of this document.

Of the 1320 written complaints in 2009 607 concerned licensees in the electric sector. This figure was 24% higher than the one in 2009. The Office instigated the official public administration proceedings in each case and passed a resolution each time. According to these resolutions 54% of claims concerning most frequently contract violations of distribution

licensees and 42% of complaints concerning mainly contracting and billing issues of universal service providers proved to be well grounded.

## 3. Regulation of the district heating sector

### 3.1 Regulation

#### *Licensing*

District heat generation and district heating services are operations subject to licensing; however, the establishment of district heat generating equipment is subject to licensing only above a thermal output of 5 MW. The powers of licensing are shared between local municipalities and the Office. Any district heat generator also producing electricity was covered by the Office, while local governments issued licenses to thermal generators without electric power generation and to district heating service providers.

Licensing and supervision of district heat service providers belonged entirely to the scope of authority of municipality notaries in 2010. Consumer protection was exercised by consumer protection inspectorates.

Establishment of consumer tariff rates in 2010 remained within the authority of the local councils of municipalities and in the capital the Metropolitan Council of Budapest. Before the tariffs were set by the councils, the Minister of transportation, telecommunication and energy reviewed district heat prices. This arrangement ceased to exist from 1 July 2009, and the TVT (Competition Boosting Act) amended the District Heating Act in this respect, extending the authority of the Office by price control functions in district heating. The Office had a double task for the implementation of the Act in 2010:

- Conducting price control procedures initiated by the district heating service provider to amend connection charges and district heating service tariff rates;
- Official inspections initiated *ex officio*:
  - under the price control procedures instigated at the district heating service providers to assess connection charges and district heating service tariff rates;
  - official procedures to assess prices in the contracts between the district heat generator and service provider.

#### Licensing power plants below 50 MW for heat and power

The licensing procedure of small power plants co-generating thermal and electric energy (below 50 MW rated electric output) differs in terms of heat and power.

- ***District heat licensing:*** Upon the establishment of co-generating power equipment with 5 MW thermal output and above, an establishment license should be applied for at the Office (below 5 MW the erection of heat generating plants is not subject to licensing). After commissioning and the successful trial run of the equipment operating licenses should be applied for irrespective of the output limit.
- ***Power licensing:*** For electric power generating equipment (including plants co-generating heat and power) a combined small power plant establishment license should be applied for at the Office between 0.5 MW and 50 MW rated electric output. Such combined approvals apply to the establishment and electric power generation of the small power generating equipment.

In the case of an installed electric capacity between 0.5 MW and 50 MW and the establishment of a co-generation plant with 5 MW or higher rated thermal output the applications need to be submitted to the Office in the following time sequence:

Before establishment:

- application for combined small power plant license (pursuant to the Electricity Act),
- application for establishment license to district heating equipment (pursuant to the District Heating Act).

Following commissioning:

- application for district heat operating license (pursuant to the District Heating Act).

### Resolutions related to licensing

The Office issued 20 resolutions related to district heat licensing in 2010. Six of these dealt with district heat generation operating licenses, one with the issue of an establishment license, 8 modified existing permits and 5 were decisions related to approvals to mergers or obtaining control. In each case the Office also took action to publish the resolutions issuing the respective licenses.

## 3.2 Competition

District heating services are local public utility services fixed to a pipeline system. One service provider operates in each supply area, therefore no competition for customers is possible. A limited competition can be envisaged mainly by the introduction of co-generation or the consumer may decide to switch to another type of heating, with very limited room to move. Yet, dissatisfaction with the high tariff rates and occasionally service quality caused several condominiums to quit district heating up to 2010.

District heating service providers supplied thermal energy to household customers at the regulated prices – established by the municipalities – in 2010. Service providers purchase thermal energy from the generator (power plants) and/or produce it themselves in boilers, or more and more in heat and power co-generating equipment (gas engines). Thermal energy supplied originated at least partially from heat and power co-generation plants in more than 60 communities. District heat generation exploited the economic benefits originating from co-generation to a growing extent, further enhanced by the feed-in obligation scheme and the related higher than market feed-in tariffs.

At the same time competitiveness of district heating was substantially improved compared to individual or central heating schemes when general sales taxes associated with district heating were reduced to 5% in 2010.

## 3.3 Security of supply, public service obligation and customer protection

Heat supply to facilities included in the district heating supply system shall be secured by the regionally cognisant community municipality and in the capital by the Municipality of Budapest through the licensee or licensees.

District heating service providers are mostly owned by community municipalities, and in certain places the district heat generator (power plant subject to power license) also acquired a share in

the service provider. There are some communities where operation of the district heating service provider is accomplished by private companies through concession agreements.

In the cases where the service provider purchases the majority of the heat from a power plant owned privately or indirectly by the state, disputes between the service provider and the power plant may endanger the security of supply. In these cases the Office occasionally acts as a mediator, but the problem can only be solved jointly by the generator, service provider and local government. In recent years efforts were made by local governments of municipalities to arrange district heat generation by the municipality through its own company or service provider.

Licensing authority in 2010 was the notary of the local government and consumer heat tariff rates, charges were established by the local council. Thus regulatory functions were entirely provided by municipalities for the whole value chain except district heat generation of power plants.

In order to ensure transparency of district heating service tariffs the Implementation Decree of the District Heating Services Act stipulated the range of financial data to be disclosed by district heating service providers and related technical information. For the purposes of better information of household customers, service providers supplying heat to a thousand or more households were obliged to set up an electronic information system (website).

Consumer protection functions are provided by the regional consumer protection inspectorates of the National Consumer Protection Authority.

### **3.4 Price preparation, pricing**

Heat sold by district heating service providers was not regulated in 2010.

Based on the legal regulation, connection charges and district heating service tariffs were specified by the local councils of municipalities in a decree of the local government. Before this decree was effectuated, the Minister in charge for the energy issues was entitled to review new tariffs of district heating. The arrangement was amended from 1 July 2009 to oblige service providers to submit their proposed tariff increase applications to the Office for approval. Local councils were empowered to adopt the tariff increase proposal pending on the resolution of the Office.

District heating service providers submitted proposals to the Office concerning the changes of district heating tariffs with respect of 36 settlement in 2010. Most of them intended to increase tariff rates. Resolution was made in 34 cases in 2010 and in two cases in January 2011.



## 4. Energy saving, environmental protection

### 4.1 Energy saving

Government Resolution No 1107/1999. (XI. 8.) lays down the energy saving and energy efficiency strategy for the period up to 2010. Based on this the Energy Saving Programme was launched in 2000 assisting the implementation of energy saving investments of consumers and the district heating sector by direct payments and discounted loans. Energia Központ Nonprofit Kft. (formerly Energia Központ Kht.) was established to administer the Energy Saving Programmes.

The Office contributes to the implementation of the Government energy saving and energy efficiency strategy. Office representatives participated in the work of the interdepartmental committee evaluating energy efficiency enhancement proposals, of the committee evaluating the proposals of the Environment and Energy Operational Programme and in the preparatory works of tender announcements in their capacity as expert consultants. They were also consulted as appropriate with respect to tender applications concerning supply side modernisation of district heating supply and the utilisation of renewable energy resources.

Close connections between energy saving, energy efficiency enhancement and environmental protection are indicated by the Environment and Energy Operational Programme related to the New Hungary Development Plan approved by the European Commission for the period of 2007 to 2013. Two priority objectives of the programme – in line with domestic and EU energy policy objectives – are:

- higher level use of renewable energy resources promoting a favourable influence on the domestic source structure of energy carriers and a move from traditional energy resources towards renewable energy sources;
- enhancement of energy efficiency contributing to security of energy supply, to mitigate high level of import dependency in energy and reduce environmental harms.

The implementation of these objectives assists our homeland to comply with international commitments. For this reason the National Development Agency announced three types of tenders for the period 2007-2009 and in 2009 for the period 2009-2010 eleven types of tenders intended to enhance energy efficiency and the use of renewable energy resources:

- five tender arrangements aiming at the use of renewable energy resources provide an aid amount of HUF 30 billion for the years 2009 and 2010, co-financed by the European Regional Development Fund and the state budget of the Republic of Hungary;
- the biannual budget line available for financing the six tender arrangements intended to enhance energy efficiency is HUF 18.5 billion, co-financed by the Cohesion Fund and the state budget of the Republic of Hungary.

Based on the experiences of the tendering system and the results of investment projects implemented with the help of these aids, tenders of the Green Economy Assistance Programme under the New Széchenyi Plan promoting the improvement of energy efficiency and the use of renewable energy resources will be announced.

## 4.2 Environmental Protection

### *Use of renewable energy resources*

Power generation on renewable energy base was increased by 5.8% in 2010 compared to that in the previous year and exceeded 2820 GWh. Calculating with the Community methodology<sup>2</sup>, the ratio of domestic green power within the total gross power consumption was raised to 6.68% from 6.42% in the previous year. Green power ratio within net domestic electric power consumption<sup>3</sup> was 7.87%.

**Table 12:** Development trends of electricity generated from renewable energy resources in Hungary (GWh)<sup>4</sup>

GWh	2002	2003	2004	2005	2006	2007	2008	2009	2010
Landfill gas							10.0	10.5	23.8
Biogas	11.2	15.6	15	27	32	28	37.5	42.5	63.3
Water	194	171	206	203	186	210	213.0	228.4	188.1
Wind	1.1	3.3	5.4	10	43	81	205.8	331.3	533.3
Biomass	0	75	655	1612	1278	1404	1 782.3	2 056.1	2 014.6
<b>Total</b>	<b>206.3</b>	<b>264.9</b>	<b>881.4</b>	<b>1852</b>	<b>1539</b>	<b>1723</b>	<b>2 248.4</b>	<b>2 668.8</b>	<b>2 823.2</b>

Biomass accounts for the overwhelming majority of electric power generation based on renewables. However, the ratio of biomass generated power declined by 2% compared to the previous year (in 2010 it accounted for 2015 GWh of the entire green power production). Biomass ratio within the green power mixture was reduced and was only 71.3% in 2010 compared to 77% in 2009.

Wind power on the other hand shows a constant growth trend, its ratio within green power production increasing to 18.9% in 2010 from the 12.4% rate in 2009. Wind power generation in absolute terms exceeded previous year's volumes by 61% like in the year before, accounting for 533 GWh in 2010. 292.2 MW of the 330 MW permitted wind power capacity was implemented by the end of 2010. Pursuant to the Electricity Act any additional wind power capacity can be acquired only on tenders.

Hydropower accounted for 6.7% of domestic green power in 2010. The trend of slowly but steadily rising volumes generated was broken in 2010, reflecting a fall of 17.6% compared to the previous year.

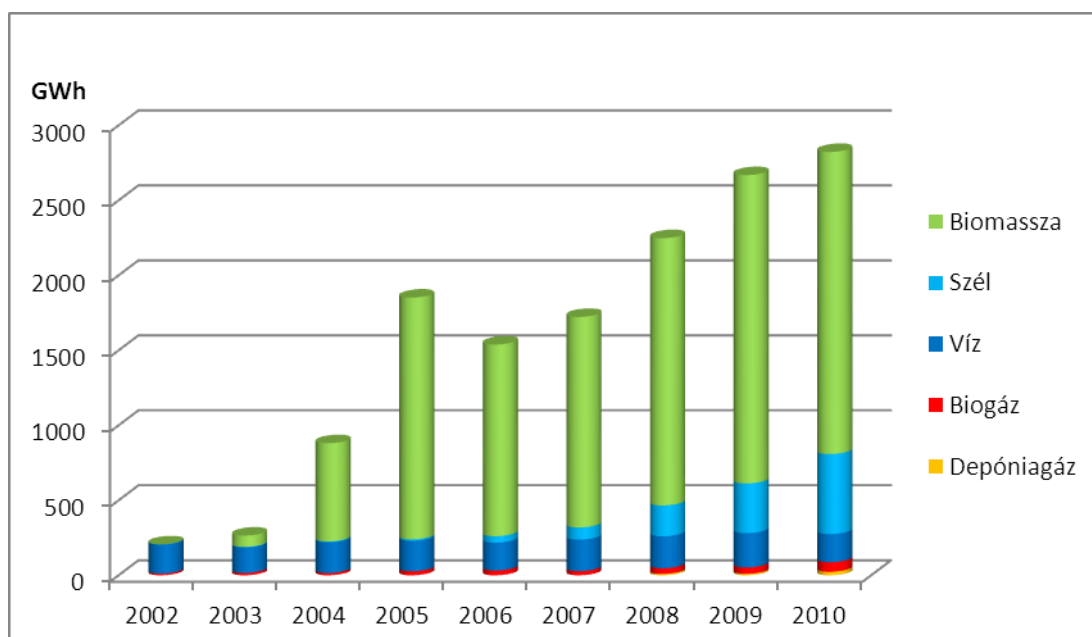
Biogas based power generation showed a substantial growth in 2010: it exceeded that of 2009 by almost 50%. The 63.6 GWh generated accounted only for approximately 2% of all renewables.

Energy production from landfill gas had the most significant percentage growth rate compared to previous years: it increased by 128% in 2010 compared to the level in 2009. The 23.8 GWh power generated this way accounted for 0.84% of all renewable derived energy in 2010.

<sup>2</sup> Total gross electric power consumption = domestic production + import – export (includes self consumption of power plants and network losses).

<sup>3</sup> Domestic net electric power consumption = domestic production + import – export – self consumption of power plants – network losses.

<sup>4</sup> The figure disclosed is based on preliminary data and the final value for renewables in the table does not contain power produced from communal waste.



**Figure 11:** Electric power generated from renewable energy resources in Hungary

*Green: Biomass*  
*Light blue: wind*  
*Dark blue: hydro*  
*Red: biogas*  
*Yellow: landfill gas*

As a whole, it can be stated that power derived from renewable sources still reflected a growing trend (exceeding previous year's generation by 5.8% in 2010). However, this growth rate fell much behind the tendency in previous years. Implementation of new projects was disturbed, postponed by years or cancelled due to the recession and financial crisis.

Promotion of renewables is important not only for environmental and security reasons but is a Community obligation derived from Directive 2009/28/EC and Decision 2009/548/EC. Pursuant to them renewable derived energy use should be increased to 13% of the total in this country by 2020. The obligation provided for in the Directive above is the preparation of the National Action Plan (NAP), which is a road map for the energy mixture envisaged for the next decade and measures taken to this end. Our NAP aimed at a renewable ratio of 14.6% instead of the 13% within the total gross energy use by 2020. Pursuant to the targets in the Action Plan biomass continues to be the leading power within renewable based energy in 2020 (about 60%), but wind power also accounts for a substantial part (27.6%). Geothermal green power is also on the rise (7.32%), while hydropower contributes to meet the targets by a similar level but decreasing ratio (4.25%).

### **Greenhouse gas emission allowance trading scheme**

Pursuant to Directive No 2003/87/EC of the European Parliament and the Council facilities with a power generating equipment greater than 20 MW output may conduct carbon emitting activities only when holding a permit to do so. The EU allowance trading scheme covers electric power, district heating, oil refinery, coking, iron smelting and steel producing, cement, lime, glass, construction material manufacturing, paper and various chemical starting material producing industrial facilities.

In the first trading period – 2005 to 2007 – the Ministry of Environment and Water Management (MEWM) considerably over-allocated the allowances to market operators. A similar situation emerged in most Member States, thus the price of the allowance was reduced to 0.5 to 1 EUR per ton in 2007 from the 30 EUR peak due to the over-supply of quotas. It can be assumed that the second trading period from 2008 to 2012 in this country will be dominated by lack of quotas in the power and district heat sectors. In the period starting with 2013 free quota allocation will be discontinued and they will be sold out on auctions. In special cases free quotas can still be granted but are subject to approval from the Commission.

The Office contributed to the determination of the total permitted sulphur-dioxide and nitrogen-oxide emission quotas of power plants, and provides assistance to the determination of quotas for new entrants in the Allocation Plan pursuant to Act No XV of 2005 on the greenhouse gas emission allowance trading scheme. The Office takes only a position in respect of the power generating licensees, the allocation authority is the National Chief Inspectorate of Environmental Protection and Water Management.

## **5. Institutional relations and providing information**

### **5.1 Bilateral institutional relations**

Beside the Office, other bodies of the public administration also provide partly or wholly customer protection functions. The Office maintains regular contact with these agencies (Hungarian Competition Authority, Office of the Ombudsmen, Parliamentary Commissioner for Data Security, National Consumer Protection Authority, Hungarian Trade Licensing Office) as customary according to the practices of previous years and conducted its work in coordination with them. The Office conducted negotiations with these government bodies, the Ministry supervising the Office and the various parliamentary committees in consumer protection issues 20 times. Instead of personal technical support implemented in former years, the Office maintained the opportunity for telephone call support as appropriate in 2010 in order to ensure smooth transition of the division of powers with the National Consumer Protection Authority. Beside public administration bodies, the Office maintained constant contacts with civic consumer protection organisations as well. As part of these contacts civil organisations participated in reviewing draft legal provisions, amendments of Business Codes and regulatory concepts of service quality control as well as in the work of the CEIR.

### **5.2 International relations**

The Office is a member of CEER and the ERGEG, an official consulting body to the European Union. Office staff members participated in the work of several working groups of both CEER and ERGEG including their sub-committees, thus the Office received first hand information on issues concerning the energy sector in Europe (security of supply, sustainability, energy consumers, etc.) and had a chance to represent national interests when measures affecting the sector were developed.

Additionally, from 2010 the Office delegates members to the Renewable Energy Sources Concerted Action - RES CA formed for the purposes of coordinated implementation of the Renewables Directive.

The Chairman of UNECE (United Nations Economic Commission for Europe) Working Party on Gas – a body gathering data for the UN to gas storage, gas transmission studies and papers on the security of supply – is a staff member of the Office.

The Office participates in the work of the professional organisation ERRA, uniting the energy regulators in a number of countries in Central and Eastern Europe, Asia and the Middle-East. Chairman of the ERRA is a Head of Department of the Office and the Secretariat is based in the building of the Office.

Well established and operational relations are maintained with the competent authorities of the neighbouring countries in particular in Austria (E-Control) and in Romania (ANRE).

### 5.3 Council of Energy Interest Representation

The CEIR had one trilateral plenary meeting in 2010 with the participation of the user and licensee representatives. Standing representatives of the user side include the Alliance of Hungarian Energy Consumers, Forum of Industrial Energy Consumers and the National Consumer Protection Authority. At the CEIR meeting held in March 2010 topics like current issues in pricing for universal service provision of natural gas, experiences gained from the asset review conducted at the natural gas transmission, storage and distribution licensees were discussed and information received on the trends in universal service tariff rates of electric power, on the conditions of heat pump tariffs, upcoming amendments of the law in relation to the Third Energy Package of the European Union and the state of preparations for the Renewables Action Plan.

### 5.4 Providing information on energy

Office managers provided regular information in both the electronic and hard copy press in 2010 on issues affecting the energy sector and the consumers. The President of the Office gave interviews on several occasions. Background discussions were held for journalists engaged with the energy sector in current issues where detailed information was provided with respect of all matters concerned. Information meetings on the pricing mechanism of universal services in natural gas and electric power supply should be noted in particular.

The Office issued the information publication on the activity of the previous year and the key technical and financial parameters of the sector supervised by it. In collaboration with MAVIR Zrt. a new publication was issued entitled 'Statistical figures of the Hungarian electricity system in 2009'. The contents of the previously issued Statistical Yearbook of Electric Power were extended to include figures on additional fixed line energy carriers such natural gas and district heat. This entailed the renaming of the publication to the Statistical Yearbook of Fixed Line Energy Carriers (VEZESTÉK).

Information necessary for the Office to meet its functions covers daily, monthly, quarterly, half year and annual data related to power and natural gas supply, district heat generation and supply services. Functions of the Office were changed in line with the full market opening first in the electricity and then in the natural gas sector and the range and content of information necessary for meeting these functions were also modified. The number of entities providing data was increased, type of licenses changed and the range of entities providing data was modified. Date requirements of the Office changed as a result of amended regulation and such changed requirements were communicated by the Office to the licensees in new resolutions.

Regularly submitted information on the operation and activity of the licensee companies is received electronically on a data reception interface of the Office website. Reception and storage of data is accomplished fully on this interface. This represented the arrival, checking and storage of 20 000 data forms for the year 2010.