

PRICE REGULATION IN HUNGARY IN THE ELECTRICITY MARKET¹

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1. Characteristics of the Hungarian Electrical Energy System

In general terms, the Hungarian energy sector is in transition, just as are all the major public service systems of the country, as well as health care, education and administration. This transition means that the energy sector is half way between a liberalised market and a state-steered socialist-type provider system. As a historical tradition, all large-scale changes to the country – political or economic – are generated by the government. It is true that in the electricity sector large regional providers have been privatised as well as several generators, but it seems that this has not been enough to introduce market rules to regulate the sector.

The electricity market can be best observed from the point of view of market regulation. The gas market in Hungary is presently even less liberalised; therefore, regulatory processes are much more visible as to the electricity market. We do not intend to present a complete study of the entire Hungarian electricity sector. We will thus not cover several important and interesting topics. This study concentrates on demonstrating the most important difficulties one of the CEE countries has to face, and giving a closer look at the price regulation system and its effects on the main principles of the operation of the electricity market.

1.1. Hybrid Model

The introduction of the hybrid model was motivated by the desire to avoid a shock-effect in the electricity sector, deterioration of the security of supply or collapse of the sector by opening the market at once. A slower, progressive opening was envisaged.² At the time when the basis of the actual model was

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² The Possibilities of Ex-ante Market Regulation in Hungarian Energy Regulation, editor: dr. Szabolcs KOPPÁNYI, Budapest 2007., p. 58 (http://www.eh.gov.hu/gcpdocs/200704/ex_ante_final.pdf)

defined the Electricity Act did not allow generators to compete and did not allow free choice of service providers, traders, or consumers. The first Electricity Directive introduced regulated access to networks and competition for consumers, which required the implementation of these principles in Hungary. Contrary to general EU practices, the Electricity Act introduced the Portuguese ‘double (hybrid) model’. First, this model left the contractual structure of privatised generators and MVM (Magyar Villamos Művek Zrt. – Hungarian Power Companies Ltd) – the wholesale trader – intact, i.e., no competition was created, and second, their relation was regulated by authority prices. The market has, therefore, been created as an alternative to the officially priced supply chain instead of in the form of general wholesale and retail markets. With the stronger political intention to form a single European market, defined in an EU Directive in 2003, and Hungary's accession to the EU, relations between the ‘double model’ and the EU rules have become more and more strained.³

One of the most salient criticisms on behalf of the players of the sector was the opinion that spontaneous market processes, particularly the promotion of an alternative competitive market, sharpened the implicit contradictions of the actual electricity supply model. These contradictions create tensions between players of the diverse sectors:⁴

– The increase in the competitiveness of the market and, therefore, the decrease in the volume of the public utility segment, did not involve the transformation of the generator portfolio of the wholesale trader (e.g., reduction of power purchase agreements (PPAs) by Hungarian generators, reduction of guaranteed takeover volumes, reduction of pre-contracted capacities, and transformation of import contracts to reflect a changed consumption structure). These ties to sources, these inflexible contracts, created a negative effect on the electricity system by generating more and more difficult system operating problems. The situation has even been worsened by the relatively ‘rigid’ production of Paks Nuclear Power Station and the obligatory takeover of subsidised generators (i.e., renewable energy sources and co-generators).

– The public utility service providers and competition market traders (sellers) compete with each other for eligible consumers, but not along discriminatory conditions. In the case of public utility imports, no border-crossing fees are included in prices, whereas competition market traders and their consumers can only access imports by paying the cross-border capacity price of market auctions.

– Generators with PPAs with the wholesale trader have contractual income and selling possibilities, independent of market conditions, while new entrants among generators must produce in market conditions, that is, subject to significant risks as opposed to their ‘public utility competitors’. This distinc-

³ HEO Recommendation to create a new model of electricity market, the 2nd of March 2006, p. 8.

⁴ HEO Recommendation to create a new model of electricity market, the 2nd of March 2006, p. 9.

tion hinders entry to the market, and results in the lack of new capacity, as well as supply problems.

– A necessary solution to this problem is that new generators should enter into contracts with the state-owned wholesale trader (it apparently provides security), supporting the role of the central wholesale trader and making it possible to develop a balanced national wholesale market.

– In the public utility segment of the ‘double market’, the single buyer wholesale trader has the obligation to supply, as public utility service providers can only buy from it. Eligible consumers have the right to return to the public utility segment; therefore, the public utility wholesale trader ‘retains’ a certain part of the contracted capacity in case the public utility demand increases, which leads to additional charges in the public utility segment and simultaneously reduces capacity in the market.

– The most obvious index of the tensions of the actual model is the relatively high retail prices Hungarian consumers pay for electricity, compared with the twelve new Member States of the EU.

– More importantly, the same disadvantage can be observed at the level of generator and wholesale prices, which are 20-25% higher than Romanian, Polish, Slovakian or Baltic figures.⁵

– The distorted and less effective Hungarian electricity market competition has another important element: the possibility that eligible consumers will wander between the public utility segment and the market segment. It creates implicit authority over maximum prices even on the market segment, as in the event that market prices rise above public utility segment prices, all eligible consumers would return to the public utility segment, i.e., no higher prices than public utility prices can be established. Therefore, market price liberalisation is incomplete; a free market only exists where it is cheaper than the public utility segment.

– Relatively high ancillary service prices are also an issue. These high prices hinder the entrance of further players to the market.

The temporary solutions for these tensions result in market-distorting answers that further strengthen the contradictions in the sector.

1.2. Dominant Position of MVM: Integrations Harmful to Competition and PPAs

MVM has responsibility for supplying the public utility segment, providing MVM with a means to influence the capacity at disposal in the free market segment by invoking this responsibility.⁶ First, the electricity system is defined

⁵ www.public.eurelectric.org

⁶ The Possibilities of Ex-ante Market Regulation in Hungarian Energy Regulation, editor: dr. Szabolcs KOPPÁNYI, Budapest 2007., p. 58 (http://www.eh.gov.hu/gcpdocs/200704/ex_ante_final.pdf)

by the dominant position of the state-owned MVM, the only company possessing a license for public wholesale, which defines the position of generators on the one side and the sources of privatised public service providers on the other, as only 23% of the market is liberalised.⁷ The position of the company is even stronger as it is the owner of MAVIR Zrt., the Hungarian transmission system operator (TSO). This can distort future competition on the electricity market. Purchasing balancing energy is the responsibility of the TSO. The price of this balancing energy is important market information. Nowadays the TSO purchases balancing energy exclusively from MVM based on its PPAs. It is of paramount importance that a real competitive market be created in the future. This dependence of TSO on MVM might result in an indirect control by MVM over cross-border capacity. The price of energy sold on capacity auctions is an important index for the market. MAVIR has the right to organise capacity auctions. Second, MAVIR decides on network (and cross-border) developments. The legal rules impose neutrality on MAVIR in relation to these activities, but this independence is threatened by interests of its owner MVM.

The high-voltage transmission network (OVIT Zrt.) is owned by MVM. The owner of this network might have not known or not recognised the means to limit the right of access of its competitors. The non-public utility capacities of Hungarian generator plants are sold by MVM at auctions. This kind of trading shows that MVM is able to influence the free market.⁸ MVM has interests from generation to distribution. The state-owned MVM is the owner of 25% of the Hungarian generator capacity (Paks Nuclear Power Station) and controls more than 60% of Hungarian generation capacity by long-term PPAs concluded with independent generators. In addition, MVM controls 50% of cheap (Slovakian and Ukrainian) imports. These factors result in MVM having 70% of the Hungarian electrical energy market at its disposal.⁹ Consequently, on the electrical energy wholesale market there is a partially vertically integrated company that has a dominant position due to its long term PPAs concluded with power plants.

While the concentration of generation capacity is low, that of wholesale activities is considerably higher. This is because the major part of the capacity to supply customers was contracted by the public utility wholesaler MVM by way of long term PPAs during the years of the privatisation (1995-1997) of the generators. Thus, MVM possesses approximately 75% of all available domestic capacity (which equals 85% of the net production of domestic generators, if

⁷ Data is based on statistics of HEO in Dr. GÁBNER Péter: *A villamos energia piacnyitás második éve*; 2004; p. 3.

⁸ *The Possibilities of Ex-ante Market Regulation in Hungarian Energy Regulation*, editor: dr. Szabolcs KOPPÁNYI, Budapest 2007., p. 59-60 (http://www.eh.gov.hu/gcpdocs/200704/ex_ante_final.pdf)

⁹ *The Possibilities of Ex-ante Market Regulation in Hungarian Energy Regulation*, editor: dr. Szabolcs KOPPÁNYI, Budapest 2007., p. 61-62 (http://www.eh.gov.hu/gcpdocs/200704/ex_ante_final.pdf)

CHP and renewable generation – considered as a off-take obligation – are not considered).¹⁰ Beyond the long term PPAs, MVM concluded long term import contracts as well and through these almost half of Hungarian cross-border capacity is also pledged by MVM. Thus, approximately 75% (or 70 – 80% depending on the basis of comparison) of the Hungarian domestic and import trade (primarily electricity purchase from domestic and foreign sources) is conducted by the MVM group, as the dominant player of the wholesale market.

The market position of MVM on the regulated market substantially differs from the situation on the competitive market. As a rule, the purchase of electricity to supply public utilities is performed at regulated prices from regulated sources. Suppliers are obliged to buy such electricity from MVM. As a result, the dominance of MVM in this sector (which represented 67% of national consumption in 2005) is higher than 80%. (As explained above, MVM offsets the majority of domestic demands through PPAs concluded with domestic generators and foreign exporters.) Further, suppliers are obliged to buy electricity from CHP, from small generators (at a regulated price), and renewable sources.

The Hungarian energy sector faces a special competition problem in relation to long-term PPAs concluded between generators and MVM. These led to the disapproval of the European Commission, as PPAs constitute a barrier to entry to the energy market and also, because PPAs involve implicit state guarantees qualifying as illegal state-aid. Professionals of the sector argue in favour of PPAs by mentioning that no investments are possible until the generator proves (by means of the PPA) that its product will definitely be sold. Others point out the other side of the coin, that is, the rigidity of the market due to PPAs, the impossibility of new entry, and the futility of end-consumer liberalisation of the electricity market as no free capacity will be available. Long-term PPAs are key-contracts from the point of view of the functioning (and lack of functioning) of the whole sector. However, they are largely responsible for making the whole system rigid as seen previously. Would it be worth invalidating these PPAs by regulatory measures? First, this process may be risky, because secret or at least unknown force majeure clauses may come into force in that case. Some say that international legal practice does not support the elimination of such contracts by state measures. It is in the organisational interest of the Hungarian Energy Office (HEO) that as long as PPAs are in effect the HEO does not have to face difficult tasks.¹¹

¹⁰ http://www.ceer-eu.org/portal/page/portal/EREGG_HOME/EREGG_DOCS/NATIONAL_REPORTS/2006/E06_NR_Hungary-EN.doc

¹¹ Based upon the interview with Mrs. PÁL Gabriella in November 2006, professor at Corvinus University, Budapest

1.3. Governance Techniques and Institutions

1.3.1. Command and Control

The lack of indicative market prices prevents market players from complying with market rules. Traditional command and control regulation still seems to dominate the governance of the Hungarian energy sector. Although privatisation of public service providers and several generators helped the system to have a certain degree of independence from the state and, therefore, a command and control form of regulation is exempted from non-transparent direct orders given by political forces to the companies (or trusts before 1992), a command and control form of regulation can still be easily demonstrated by mentioning legal provisions in force. The framework of the system is defined by legal instruments: Acts, government orders, and ministerial decrees. The Hungarian Act on Electrical Energy¹² lays down the most important and the most general rules of the sector. It establishes the two-sector hybrid system of public utility services that assures electrical energy to companies, municipalities and households that did not choose to transfer to the liberalised electricity market, and the main rules governing this latter. The liberalised electricity market opened to engage consumers on the 1st of January, 2003. (Until the 1st of July 2007, households had no right to elect their own provider. There still remain several companies or municipalities that, in spite of the fact that they have the right to change their provider, have not left the public utility service that they consider to be safe, in the hope that the electricity price will be cheaper.) How prices are affected by retaining the possibility of consumers to revert to public utility service will be considered in Section 2 of this essay.

One of the most important provisions of the Act on Electrical Energy offers the public-use electricity to the only public utility wholesale purchaser (MVM) and provides for compulsory development of green energy by the latter. The first provision assures the monopoly of MVM over the public utility wholesale sector, and a dominant position in the electricity sector. Compulsory development of green energy might result in distortion of the electricity market. The command and control regulation is almost solely limited to creating a price-defining right of the state; prices are the heart of an independent system. Changes are a question of political will. Experts point out that privatisation of MVM, invalidating long-term agreements and creating a commodities market could move the balance towards a market oriented version of the sector. The only real field of self-regulation and co-regulation in the electricity sector may be observed in relation to the cooperation of TSOs in the region. This is im-

¹² Act 2001. CX on the Electrical Energy

portant to assure the critical market size, as Central European electricity markets are relatively small. According to the EU Commission and regulatory organisations (CEER and ERGEG) a single European market may be created through the establishment of regional markets.¹³ MAVIR participates in negotiations concerning the harmonization of rules with Italian, Austrian, Czech, Slovakian and Slovenian TSOs.

1.3.2. Institutions

Hungary has implemented all relevant EU directives¹⁴ with regard to the energy sector that aim to enhance competitiveness and implement market rules and environment protection, etc. The problem is that, apart from soft implementing methods (i.e., Hungary has implemented the 'lightest' possible version of these acts), these rules can be and are avoided, misunderstood, or violated. These practices are said to be exercised by companies of the sector.¹⁵

According to the Act on Electrical Energy, the HEO is an autonomous organisation of nationwide competence. This governmental organisation has the task of issuing permissions, setting general terms and conditions for the players of the Hungarian energy sector, controlling the performance of obligations of those having permissions, approving electricity supply rules, and preparing the rules on fixing authority prices.

However, one of the most important governmental tasks – fixing public utility sector prices – is vested in the Ministry of Economics. The HEO has only a preparatory role, which would seem to be important because prices are fixed by negotiations, as observed in Section 2 of this study. However, as can be demonstrated by several examples, the HEO has very often become the 'hostage of sectoral lobbying' as an expert says.¹⁶

The licensing system may also be considered as a command and control regulation. Permits are issued by the HEO. The Act on Electrical Energy sets out all necessary elements of an application for such a permit. The real question, however, is the discretion of the HEO. As a result of deficient legislation concern-

¹³ Dr. Gábor SZÖRÉNYI: A piacnyitás eddigi tapasztalatai, a vezetőkes energiarendszerek várható jövőképe, September 2004

¹⁴ Direction 2003/54/EC on the establishment of Internal Market of Electricity; Regulation on cross-border trade in electricity 1228/2003/EEC; Direction 77/2001/EU on Renewables; Direction 2006/32/EC on energy services; Direction 2003/55/EC on the establishment of Internal Market of Gas

¹⁵ Based upon the interview with Mr. András SUGÁR in October 2006, professor at Corvinus University, Budapest

¹⁶ Based upon the interview with Ms. Gabriella PÁL in November 2006, professor at Corvinus University, Budapest

ing wind-generated power plants, the allocation of the defined proportion of capacity – judged by some experts as very small – was not normative and transparent.¹⁷ The main reason is that the decree on the allocation does not contain provisions on delivery principles and methods. In addition, it does not contain any possibility to withdraw permits once the requirements are fulfilled. Due to the resistance of MAVIR, the Hungarian TSO, a kind of limited quota-system appeared on the Hungarian wind-generated energy market. The main argument is that the Hungarian electricity network can only bear 330 MW of wind-generated energy. However, this reasoning is questioned by professionals and the resistance against the use of more renewable sources might again be the result of the carbohydrate-based generators lobby. Due to these arguments, wind-generator capacity has been delivered upon authoritarian principles, and the HEO found later that an investigation of the allocation is needed as some irregularities might have occurred. Nevertheless, contracts had already been concluded by that time.

Legally, operational and regulatory activities are separated. Nevertheless MAVIR, the Hungarian TSO, is an affiliated company of MVM, the Hungarian monopoly public utility wholesale purchaser. The problem resulting from this affiliation is that MAVIR has access to various confidential data of the generators and it is doubtful whether MAVIR can prevent MVM from satisfying its information-hunger in order to strengthen its market position.¹⁸ In any event, MAVIR has the traditional responsibility to operate a transmission system as part of the UCTE region.

Finally, in spite of its regulatory function, HEO cannot always fulfil its obligations. Companies appear to be politically stronger, as will be considered in Section 1.5. in relation to the CO₂ allocation plan. Market regulation through the interaction of rational buyers and sellers is clearly not the case due to the lack of index prices and real competition, and the presence of oligopolies. These are replaced by regulatory measures, negotiations on prices and so on. On the other hand, the regulator also has the role of representing corporate interests in relation to the government.

1.4. Transparency, Institutional Openness, Responsiveness, Participation

It is rather difficult to write about the Hungarian energy sector. This is not only because of the lack of written sources such as books, but also because this is a very closed profession, where interests might be the same, irrespective of the place of work. It is usual that the managers of the sector work for the Ministry

¹⁷ Upon the interview with Ms. Gabriella PÁL in November 2006, professor at Corvinus University, Budapest

¹⁸ Magyar Narancs: Energiaipari változások I. – Integrált függetlenség, 2006.

of Economy, then for the HEO, then for MVM. The leader of MVM, the public utility wholesale purchaser, is always a prominent person coming from politics. This is also an element that makes the position of MVM even stronger.¹⁹

The strength of members of the engineering discipline in lobbying when technical questions are at stake answers several questions and the fine functioning of the system. Their final reason is that if you – politicians – do this, your constituents can surely count on power cuts. At this point, a significant informational asymmetry may be also observed. No one questions their reasons and this phenomenon corresponds to Foucault's analysis identifying 'other sources of power, central among these being professional expertise'.²⁰ Although one can say that this phenomenon is nothing peculiar, it involves changes to society. In Hungary this point is still too harsh as it is present in several aspects of the function of the sector. One example can be mentioned in relation to the environmental concerns discussed in Section 1.5.

PPAs represent obstacles to institutional openness. Maintaining the status quo created by the privatisation of public utility providers and the non-privatisation of the public utility wholesale purchaser seems to be the common and unspoken objective of both MVM and the HEO, and the Ministry as well. In addition, as the main rules governing the working of the system are laid down in unknown contracts, their transparency could be considered as business secrets. Consumers are not motivated to leave the public utility service, which they consider to be safe. As of July 2007, small consumers can also leave the public utility service, but there is no hope that they will be more willing to do so than engaged consumers (such as medium-size companies or municipalities). It also means that they are not interested in participating in the control of the sector. The main issue that can lead to political debates is the question of prices, or privatisation. No deep arguments are presented in front of the larger public, so the political debate is limited to a very superficial and simplified one.

It is difficult to understand how the whole system works. An average consumer is only interested in the total amount of monthly bills issued by his/her service provider, and it is also clear that no consumer represents power as compared to the energy service provider. The representation of consumers is confined to politicians. Such openness is linked to stronger competition and less concentration on the one hand. On the other hand it is related to informational asymmetry and the power of engineering-professional expertise. It is

¹⁹ Based upon the interview with Ms. Gabriella PÁL in November 2006, professor at Corvinus University, Budapest and the interview with Mr. András Sugár in October 2006, professor at Corvinus University, Budapest

²⁰ Dr. Collin SCOTT: Regulation in the Age of Governance: The Rise of the Post-Regulatory State p. 10.

very hard to argue against professionals when they reason with their *ultima ratio*, the security of supply. It can easily happen that they feel attacked if their professional arguments are opposed by environmental or competition concerns. The result is that several times they have seemed to be stronger. An example is the allocation of wind-generator capacity (Section 1.3.) or the Vértes Power Station case (Section 2.).

Consequently, the current situation of the energy sector cannot be separated from public matters, that is from the Hungarian political situation in general.

1.5. Environmental Concerns

Environmental concerns seem to be less important in Hungarian thinking. Beyond the generalities in the Act on Electrical Energy and the Act on Gas Services, state organisations remain weak in enforcing environmental interests. The main reason is the strength of professionals from the engineering discipline in lobbying when technical questions are at stake, as observed in Section 1.4. In addition, environmental concerns are of secondary importance. A good example of this is the government structure, whereby despite the fact that there is a separate Ministry of Environment the minister is always nominated by the minor coalition partner. Agents of the Ministry are certainly present at important meetings of the sector, but their voices cannot be heard, or if so, they are not taken into consideration.

Although the HEO has no real environmental competence, in the late 90s, it began to work on the environmental regulation of the energy sector. The reason was that the Hungarian Ministry of Environment had no capacity or knowledge to act. Certain reservations could have been felt concerning the regulation of such an unknown, 'mystic', and closed sector, always contoured by legends of strong political connections. The only organisation that had enough knowledge on the 'needs' of the sector was the HEO. Nevertheless, lack of competence was no obstacle to dealing with this issue. A series of examples demonstrates how the role of the HEO became its own parody, even as to environmental questions. One example: the definition of nitrogen oxide emission standards. The Ministry of Environment sent a blank table to the HEO. They searched for information regarding the emission rate of the biggest Hungarian nitric oxides polluter by examining its contracts or, worst, by directly calling the company. They filled the table in, sent it back with a letter that the Hungarian energy sector claims the standard written into the table. At this moment the HEO became the lobbyist of the largest companies and that of the whole sector, reflecting their corporative interests instead of representing the government against the sector.²¹

²¹ Based upon the interview with Ms. Gabriella PÁL in November 2006, professor at Corvinus University, Budapest

The allocation plan of CO₂ emissions was negotiated by different organisations of generators. However, the strongest lobbyists were diplomats and politicians in the case of the biggest generator of foreign origin owner (RWE – Mátra power station). The lobbying activities of private or state-owned companies reaches the peak of politics; the hottest topics are negotiated by prime ministers in this field.

2. Price Regulation in Hungary

The most significant element of markets organised alongside state intervention is that the state is able to intervene in market movements by direct decisions. The most important problem of the Hungarian hybrid model is that of the authority-fixed public utility price. Apart from within the minor-scale liberalised market, public utility sector prices are fixed by the government. In addition, no commodities exchange, therefore no index prices, are present on the Hungarian market, either in the public utility sector, or in the so-called market sector. This phenomenon derives from the effect of the hybrid model described in Section 2.4. The lack of index prices hinders the appearance of real market risks and motives. As a consequence, the procedure of defining tariffs is one of the central elements that should be considered in order to understand the regulation of the Hungarian electricity market.

It seems to be very typical of the Hungarian electricity sector that among the possible solutions, the most command-and-control-like version has been chosen. In Hungary no free public utility prices are present, no declaration obligation exists, nor does ex-post control of prices. It is not the general regulatory institution that sets prices; rather it is the Minister of Economy and Transport who makes the final decision. One characteristic of the Hungarian legal environment is that the HEO, which is in theory an autonomous organisation with its own competence according to the Act on Electrical Energy, has several important tasks in steering the sector, but it is not the final organisation that sets the prices.

As there is no power exchange in Hungary, trading in electricity is done on the basis of bilateral contracts. The lion's share of domestic production (approximately 85%) is contracted in PPAs by MVM. Although PPAs are 15 – 20 year long term contracts, the parties agree on production and off-take details (exact quantities and prices) in yearly agreements. MVM sells electricity to public utility suppliers at regulated prices and these re-sell the energy to public utility consumers, also at a regulated price. At present this latter represents the major quantity of the Hungarian electricity trade.²²

²² http://www.ceer-eu.org/portal/page/portal/ERGEG_HOME/ERGEG_DOCS/NATIONAL_REPORTS/2006/E06_NR_Hungary-EN.doc

2.1. Price Fixing Methods

In fact, there are no statutory provisions governing price-negotiations. Even though such negotiations are not contemplated by any of the provisions, all the parties involved do so. Participants of the negotiations are generators, purchasers, service-providers, and the governmental side. First of all, every four years the level of cost is defined based upon the estimation of the HEO of changing (such as the energy-supply and wages) and fixed (amortisation of assets) costs. A fixed 8.5% profit rate is also included in tariffs. This report is sent to the participants, who can make their observations. As a result the HEO may modify the report. Subjective elements are involved in counting amortisation costs; this is the most debated element of the price. The other subjective element of defining prices is the estimation of consumption. As this element is very dependent on the weather, some 130 types of electricity prices and 80 types of gas tariffs are defined. Prices show that the sector has a good lobbying capacity that has the objective of avoiding market risks.

Negotiations on defining prices are very dubious means of regulation. Despite its ultimately command and control nature, the procedure of setting prices itself is about the distribution of charges and profits; thus, it has the characteristics of negotiations and, therefore, that of risk-management. This element of command and control regulation cannot be considered as ‘traditional’, because as a first step it involves negotiations that allow the interests of several participants in the sector to be shown. At first sight, the simplification of ‘government telling – others doing’²³ is not verified. An extreme example from the gas sector shows that this very simple formula of command and control regulation works at the ultimate moment.²⁴ In 2002, the Hungarian government froze gas prices for households for political reasons. The method has been set out above: the Minister of Economy and Transport had the right to do so. The result was that the gas branch of MOL, the state-owned Hungarian gas purchaser of that time, was ruined, as import prices continued rising. The company's one year loss reached several billions of Hungarian Forints. The next management of the company had the difficult task of consolidating the gas branch. The company has since been sold.

Self-regulation needs market rules and market signals, like indicative market prices. The lack of this latter makes self-regulation of market players impossible. Although ‘price-negotiations’ is mentioned in this study as a kind of self-

²³ Dr. COLLEN Scott: Regulation in the Age of Governance: The Rise of the Post-Regulatory State p. 2.

²⁴ Based upon the interview with Mr. András SUGÁR in October 2006, professor at Corvinus University, Budapest, and according to the article: A megmaradás elve – Energiapolitikai stratégia nélkül, Magyar Narancs; 2006. május 11.

regulation, it is very difficult to speak about self-regulation in the real sense of the word. The competence of the Minister to fix prices on the Hungarian retail and wholesale markets does not only mean that decisions bear the nature of command and control, but also means that the institutional lobby reaches the Minister and the government itself. Intentionally or not, the government takes part in 'self-regulation' of the electricity sector, in a meaning turned inside out from the term 'self-regulation', where it remains inseparable from discreet lobbying of sectoral players.

The example of Vértes Power Station (VPS) proves political connections can move the government's decisions, and state guarantees can distort competition. The state intended to privatise the company, but it failed three times. The fuel of the generator is brown coal with very low calorific value; therefore, production costs were too high. In addition, air-pollution standards only came into effect in January 2005, but in order to meet these standards a 10 billion Forint investment was needed. Until 2003, the company was safe due to its long-term agreement with MVM, which was also the owner of VPS. The contract period came to end and MVM did not want to conclude a new contract with VPS for the abovementioned reasons, that is, high production costs and unavoidable environment-friendly investments. Prominent politicians from both sides of the Hungarian political battlefield found a common goal. Arguing for the interests of some hundreds of miners, they managed to convince the government that VPS needed to be maintained in spite of the lack of any professional reasons supporting this goal. As a consequence, the government accepted this demand, the Minister of Finance signed the guarantee, and following the elections of 2002 the subsequent Minister of Finance issued it. Still, the state-owned MVM did not intend to conclude a new contract with its affiliated company. Instead, it demanded the government guarantee the price of electrical energy produced in VPS for the next several years, at a cost of some 30 billion Forints. The final solution was suggested by the HEO: the Minister's decree on compulsory undertaking of electrical energy covers, apart from renewable sources, as well as the product of VPS at a fixed price higher than for renewable sources.

The decree solved the problem of some market players. It subsidises one generator of traditional coal-technology from the money paid by consumers. But in doing so, it goes against competition goals, environment goals, and anti-discrimination goals; it reinforces the belief that the sectoral lobby reaches the peak of politics. The worst of the story is that the HEO again played the role of lobbyist when convincing the Minister that the arrangements were the best solution to avoid miners' strikes. This issue illustrates how even ministerial decrees can serve to protect very special corporate interests. A further example of the contradictory elements of the tariff system is described in Section 2.3.

2.2. Statutory Provisions, Origins of the Hungarian Price Regulation

2.2.1. The Act on the Definition of Prices

The main rules concerning Hungarian price regulation are laid down in the Act on the Definition of Prices (Act LXXXVII of 1990). The initial period of the application of this Act was characterised by deconstructing the Soviet-type economy based on state-owned monopolies and state-controlled prices. The legislature of that time was obliged to envisage the problem of constructing market-friendly rules on the one hand, and the existing practice on the other. The liaison between the two had to be created by rules that showed a new way of economic regulation, but were nevertheless able to govern the situation of that time.

In its preamble, the Act provides „direct governmental intervention is only justified where rules of the competition act are not enough to prevent limitation of competition and abuse of dominant position”. Although governmental intervention seems to be limited to complementing the Competition Act, in reality the scope and the effect of price-fixing rules go far beyond this objective in such a way that the institutional structure (providing no room for competition) it supports can hardly meet the Competition Act standards. The role of the government, beside these market-efficacy characterised motives, is linked to the principle of social solidarity, although this is not mentioned in the preamble of the Act. This policy of trying to keep prices controlled for social reasons is expressed in everyday Hungarian political conversation concerning the motive for price definitions, even if there is no doubt that this system is not sustainable, while the question is definitively answered by EU Directive 2003/54 EC, which obliges the government not to define prices in relation to household customers from the 1st of July 2007, although the date for a free retail market might be postponed because of the lack of relevant legislation.²⁵ On the Hungarian electricity market, the public-utility sector and so the public utility wholesale trader’s monopoly seems to be strengthened by three means: PPAs, price regulation, and the owner’s side, that is, the state-owned wholesale trader’s monopoly that has the majority share in several generator plants, the network licensee, and the system operator.

In its article 7, the Act stipulates „concerning the products and services listed in the annex, either the minister entitled or the local government define the highest or the lowest price”. In its article 8, it provides „the highest price has

²⁵ On the 16th of May 2007 the Government accepted the bill on Electrical Energy that foresaw the opening of the market by the 1st of January 2008.

to be defined in a way that it covers the costs and profit needed for the operation of an efficiently functioning undertaking, having also regard to the taxes and subsidies.” The annex sets out three electricity products with prices fixed by the Minister responsible for energy policy: electrical energy sold by the public wholesale trader for public utility purposes (wholesale market, 2.4.); electrical energy sold by the public utility supplier (retail market, 2.3.); and electrical energy sold by the generator licensees for public utility purposes (wholesale market, 2.4.). The annex involves four services, the fees for which are fixed by the Minister responsible for energy policy: (network tariffs 2.5.) As these functions are by definition monopolistic, these fees are the same for the public utility service and for the market: electrical energy transmission fees, electrical energy distribution fees, fees for the use of electrical energy system, and fees for the use of electrical energy system level services. Another important rule is that the HEO is entitled to prohibit the application of prices contrary to statutory provisions and to initiate an action imposing a consumer-protection fine, or to force the undertaking to refund (to the injured party or to the state) its extra profit obtained by exceeding measures of statutory provisions concerning authorised prices.

The competence of the Minister responsible for energy policy is specified in the Electrical Energy Act. Article 4 point e) provides that the Minister shall define (with the consent of the Minister responsible for the state budget) the authorised prices and conditions for the application of electrical energy prices detailed in the Act on the Definition of Prices. The competence of the Minister involves defining subsidies aimed at reorganising the system of the carbon industry, and its changeover costs.²⁶ The Minister is entitled to define a different tariff system that only concerns the employees and retired persons of electrical energy undertakings.

It can be seen that not only public utility retail prices, but also wholesale prices, are fixed in the Hungarian (electrical) energy sector. The ultimate competence to fix prices is that of the Minister; the HEO has only a preparatory role during ‘price negotiations’. Following the list offered by the Act on the Definition of Prices, we shall review the legal measures concerning the products and services that have prices fixed by the Minister responsible for energy policy. It has to be emphasised that the price of electrical energy is not defined for eligible consumers (that is, non-household consumers with consumption up to a certain level). According to EU Directive 2003/54 EC, retail prices for household consumers have to be exempted from the regulation by the 1st of July 2007.

²⁶ Changeover costs are defined by article 3, section 1 of the Electricity Act.

2.3. Retail Market

Generally speaking, price regulation is considered as one of the basic means of market regulation. The key point of price regulation is fixing access fees. In the Hungarian electricity sector, price regulation involves not only regulation of access fees, but even fixing retail prices. The lack of indicative market prices is the result of two main factors. First, it is the effect of the Hungarian hybrid model of public utility sector and free market sector. Second, long term PPAs cover the greatest part of electricity volume; therefore, balance of demand and supply cannot be maintained. In Hungary, an administrative price control is in effect for maximum end user prices for public utility customers. These prices are uniform across the country. Each public utility supplier has a regional monopoly regarding the supply of public utility customers. The public utility wholesaler also has the monopoly of supplying the public utilities, if we do not take into account the obligatory purchase of renewable energy and co-generation.²⁷ Currently, any customer may remain within the public utility sector, or may return there from the competitive market. In this regard, the public utility sector also operates as a price cap for the competitive market. Residential customers have had the option to choose their supplier from 2007.²⁸

Maximum end user prices for public utility customers are corrected annually by the Minister of Economy and Transport. The regulator has a price preparation function. Revision of these maximum prices within the year may happen if events on the energy market or significant problems in regulation clearly call for such measures. Compensation for being obliged to supply at administered prices is generally not required, since public utility suppliers purchase electricity from the public utility wholesaler at administrative prices. For the public utility suppliers the regulatory profit is 0.5% of the cost of electricity sold. The profit limit is 150% of the regulatory profit while half of the excess (if any) must be returned to the customers. In the course of the annual price revisions the quantitative changes in the public utility segment and other possible effects on the public utility suppliers' costs and revenues are considered.

2.3.1. Electrical energy sold by public utility supplier to non-household customers

Economic and transportation ministerial decree no. 59/2002 on the definition of electrical energy prices sold by public utility supplier to non-household public utility consumers assures the possibility of deviation from the conditions of the

²⁷ There is one generator, which has a PPA directly with a public utility supplier. This is only possible if accepted by the public utility wholesaler.

²⁸ http://www.ceer-eu.org/portal/page/portal/ERGEG_HOME/ERGEG_DOCS/NATIONAL_REPORTS/2006/E06_NR_Hungary-EN.doc

application of prices thereby described, but its drawback is that these prices cannot supersede the highest prices defined by the decree.

Four different tariff systems exist as to this group of customers. If a consumer fulfils the technical requirements, it can opt for either of the two principle tariff systems, that is, the capacity-based tariff system (more than 20 kWh), which involves a capacity-fee (HUF/kW/year) and electricity fee (HUF/kWh), and the basic fee tariff system (for high voltage – less than 3 MVA – and middle voltage – less than 300 kVA), which involves a basic fee (HUF/kVA/year) and electricity fee (HUF/kWh). The other two tariff systems are the provisional supply tariff system and the public lighting tariff system. The decree provides for accounting for transformation loss and the periods of peak demand and base demand time zones.

2.3.2. Electrical energy sold by public utility supplier to household consumers

Economic and transportation ministerial decree no. 58/2002 on the definition of electrical energy prices provided by the public utility supplier to household (domestic) consumers introduces three tariff systems as follows: the household general (A) tariff system, the household measured (B) tariff system, and the electrical energy industrial (C) tariff system. Tariffs are specified in the annex of the decree. Electricity prices are paid upon the extent of consumption (HUF/kWh). The C tariff system is maintained only for the employees and retired persons of electrical energy undertakings. The government has tried to deconstruct this C tariff, considering it a remainder of the privilege system of the socialist state, and discriminatory against the majority of household consumers, although attempts have always failed as a result of the strong lobbying power of the electricity sector.²⁹ Household tariffs can also be applied to garages, church buildings, and diplomatic offices that are used as residences as well, and social institutions that are residences for the sheltered.

2.4. Wholesale Market

2.4.1. The Effect of the Hybrid Model

As was mentioned, the most significant element of the system of markets organised alongside state intervention is that the state is able to intervene in market movements by direct decisions. The most important problem of the Hungarian hybrid model is that of the officially fixed public utility price. Once the public utility sector and the liberalised market sector may be perme-

²⁹ A previous agreement has been signed on the 7th of March 2007 between the Ministry and the Trade Union of Electricity Industry Employees on a mediation process concerning the future of the so-called C tariff. The agreement decides that a kind of discount tariff will certainly remain. (<http://www.vd.hu/cikk.php?cikk=2868&szid=0>)

able (and this condition is fulfilled by the Electricity Act), free market trade is possible only at less than public utility prices, since if free market prices rise above public utility prices, consumers will cover their needs from the public utility source.³⁰ After the market for engaged consumers was opened, 35-40% of the consumers purchased electricity from the free market; today this proportion has fallen to 15%.³¹ Therefore, this hybrid model system and the permeability between the two branches will result in implicit maximum prices on the free market.³² Moreover, the free market cannot exist unless it is cheaper than the public utility service.

The fact that even the free market price is not the price of a real competing market is the result of three factors. First, only a minor part of the volume of generated electricity energy purchased on the free market influences significantly the balance of supply and demand. Second, long-term agreements on capacity fix the prices in advance; i.e., these prices are independent of the actual supply and demand. Finally, the energy trade within vertical integrations is the result of decisions of the company group and not those of a free market.³³

2.4.2. The Effect of Long-term Power Purchase Agreements³⁴

This problem of the Hungarian electrical energy sector is related to the existence of PPAs (long term agreements), which is one of the key points that needs to be changed in the future. By its decree, the HEO accepts the Commercial Rules of the electricity sector, which contain an obligation that the system operator invoice balancing energy without discrimination. The Commercial Rules contain the method to define unit prices of balancing energy. The key point is that the price of balancing energy is connected to the average price of wholesale trade; thus, instead of market processes it is defined in an administrative way.

PPAs between power plants and the wholesale trader contain provisions on the capacity data, the contracted value of average capacity, and on defining prices. The PPAs in their actual form do not allow the power plants to take part di-

³⁰ The Possibilities of Ex-ante Market Regulation in Hungarian Energy Regulation, editor: dr. Szabolcs KOPPÁNYI, Budapest 2007., p. 55 (http://www.eh.gov.hu/gcpdocs/200704/ex_ante_final.pdf)

³¹ According to Mr. Balázs FELSMANN, the Secretar of the Minister of Economy and Transport, in a press conference on the 3rd of April 2007; (<http://www.gkm.gov.hu/feladataink/energetika/iea.html>)

³² The Possibilities of Ex-ante Market Regulation in Hungarian Energy Regulation, editor: dr. Szabolcs KOPPÁNYI, Budapest 2007., p. 58 (http://www.eh.gov.hu/gcpdocs/200704/ex_ante_final.pdf)

³³ The Possibilities of Ex-ante Market Regulation in Hungarian Energy Regulation, editor: dr. Szabolcs KOPPÁNYI, Budapest 2007., p. 58 (http://www.eh.gov.hu/gcpdocs/200704/ex_ante_final.pdf)

³⁴ Recommendation to create a new model of electrical energy market – Hungarian Energy Office, the 23rd of March 2006.

rectly in the balancing energy market, as these agreements cover the capacity needed to assure the system-level services. As the volume of taking over the electricity and its price are fixed in PPAs, the public utility wholesale trader and the power plants are not motivated to create the market of balancing energy and, therefore, to create a price conforming to real market circumstances, because if the PPAs were renegotiated, any of the contracting parties might find itself in a worst situation.

In this situation of a market with a single player, it is useful to maintain the administrative prices. Because of the lack of price signals and price information, power plant investors may only rely on their bilateral contracts, and they try to conclude new contracts with MVM when investing, in a way similar to the actual PPA structure. This is one of the reasons why there are investments in new large power plants. The actual structure of contracts cannot secure either a multi-player national market or the chance for consumers to be benefitted by improved efficacy of power plants.

2.4.3. Lack of energy commodity exchange³⁵

One form of the market-based index price could be offered by an organised electricity market (energy commodity exchange). However, the actual PPA structure represents 80% of the national capacity, and, therefore, no liquid market can be created that would offer real, indicative market price signals. The lack of a transparent electricity market makes the consumers vulnerable vis-a-vis the well-informed trader, as the offers they receive cannot be compared to those of a liquid, transparent market.

2.4.4. The Price of Electrical Energy Sold by the Public Utility Wholesale Trader for Public Utility Purposes

Economic and transportation ministerial decree No. 4/2005 on electrical energy sold by the public utility wholesale trader for public utility purposes regulates the following subjects: the price of electrical energy sold by the public utility wholesale trader for public utility purposes and the conditions for its applicability, the price of electrical energy sold by the public utility wholesale trader to distribution licensees and the conditions for its applicability, and the average price of electrical energy sold by the public utility wholesale trader. The decree also stipulates basic definitions of *yearly price correction* aiming to compensate for inflation, *justified cost*, i.e., the lowest cost needed to operate the li-

³⁵ Recommendation to create a new model of electrical energy market – Hungarian Energy Office, the 23rd of March 2006.

censed activity³⁶, and *initial price margin*, i.e., the price margin recognised by the prices thereby defined upon the justified costs of the public utility wholesale trader and public utility supplier.

Annex no. 1 on the price regulation of electrical energy sold for public utility purposes and for supplying grid loss³⁷ provides that in defining the public utility wholesale average price the following factors must be considered: market processes, results of comparative examinations, the necessary incentive factors (in relation with the principle of lowest cost), the justified factors of unique economic policy and price regulation, and the change in the volume and structure of the public utility segment. In defining the average price of electrical energy sold by the public utility supplier the last element (the change in the volume and structure of the public utility segment) has to be considered. It seems that these factors are indefinite enough to give maximum 'freedom' to the HEO and the Minister to handle certain players of the market in a special way, which eventually may be a drawback to other market players. Price definition methods are based on the volume figures of the HEO, although these data are provided by different players of the sector. The volume and details of data supply are prescribed by the Act on Electrical Energy.

The HEO suggests an *extraordinary price correction* where 'electricity market events or major regulation problems make it unambiguously necessary'. In case of (yearly or extraordinary) price corrections, tariffs have to be developed along with average prices. In these cases, deviation from the abovementioned data is justified if those volume data and proportions meant unacceptable advantages or disadvantages for the traders or if the structure of tariff systems was modified. With regard to a yearly price correction, the HEO recommends the '*inflation correction factor*' after analysing the operation of the companies and future developments. In principle, the inflation correction factor is the same for all companies, but in those 'justified cases', which are not specified, this factor may also be different with regard to certain companies, groups of companies, or types of operations. This is another rule the interpretation of which allows special treatment of certain companies through the discretion of the HEO and the Minister. With regard to the tariff system of the electrical energy sold by the public utility wholesale trader to the public utility supplier and to distribution licensees, the decree provides for a peak load price and another for the base load period. The tariffs per kWh (highest price) and the duration of these periods are defined in another annex. The decree also provides detailed rules for the preparation of the schedules. The principal rules are laid down in the Act on Electrical Energy.

³⁶ Act 2001. CX on Electrical Energy

³⁷ Economic and transportation ministerial decree no. 4/2005 on electrical energy sold by the public wholesale trader for public use purposes, art. 3.

The average public utility wholesale price and the average public utility supplier price are both defined by formulas based on the addition of the price margin (that is, costs minus purchasing) and purchasing and correction number minus changeover revenues and other revenues. The given number must be divided by the volume of the energy sold. *The result is the average public utility wholesale price.* The average public utility supplier price follows a quite similar formula. There is a special rule concerning the ‘*share of the profit*’ of the public utility supplier. In this case the part of the profit that is above a defined level has to be shared, that is refunded to public utility consumers with the consent of the HEO. The importance of this rule on the one hand is that the public utility supplier’s profit is limited, and on the other hand that the HEO is again in a strong position in relation to the (financial) control of public utility suppliers. The method of calculation depends on whether the latter has or does not have a distribution licence. Contrary to the average prices, the highest authority prices are nominally defined in Hungarian Forints (without VAT and energy tax). Other various formulas serve to define the settlement of accounts between the wholesale trader, public utility suppliers, and grid operators and the fees in case of deviation from the schedules (if there is no different agreement between the parties).

2.4.5. Electrical Energy Sold by Generator Licensees for Public Utility Purposes

Economic and transportation ministerial decree No. 80/2006 on the definition of highest electrical energy prices sold by generator licensees for public utility purposes defines all prices that generators can invoice for public utility purpose electrical energy. These prices are defined generator by generator. For each generator, tariffs are composed of a disposition fee (in thousands HUF/MW/year) and an energy fee (HUF/MWh). The disposition fee is calculated upon the capacity at disposal. The decree also provides for a payment obligation to the Central Nuclear Financial Fund.

2.4.6. Obligation to Take Over Electrical Energy

The Electrical Energy Act lays down a special provision to encourage the use of renewable sources. The wholesale trader and the public utility suppliers are obliged to take over electrical energy generated by the use of renewable energy sources.³⁸ To compensate for this obligation, economic and transportation ministerial decree No. 56/2002 on the definition of prices of electrical energy under the obligation of taking over creates a special fund. The decree specifies the

³⁸ Electrical Energy Act art. 43 (5), 45 (4)

tariffs for different (weather-dependent energy source, non-weather-dependent energy source, waste-generated, or gas-generated) energy prices. It also provides the basic rules for taking over energy.

2.5. Network Tariffs

2.5.1. Market for Ancillary Services³⁹

As regards the ancillary services market, there is a yearly tender for procurement of different types of ancillary services.⁴⁰ Applicants have to specify the maximum bids they can make during the year, availability plans, and technical data needed. The winners of this tender may bid a day ahead for ancillary service markets like the primary control market, secondary control market, minute control market, and hourly control market⁴¹. The products on these markets are hourly ones. For other control types,⁴² yearly frame contracts are concluded. The winners of the daily auction get the required capacity fee for availability in the given hours and also the required energy fee if the system operator needs energy from them as well⁴³ (paid as bid auction).

There is no real competition on the ancillary services market, as most of the suitable capacity on the supply side is under long term contracts with the public utility wholesaler (MVM). As a result, most Hungarian generators cannot appear on the ancillary services market directly and in 2005 MVM had a market share of about 95% on the balancing market regarding capacity and almost 100% regarding energy. Nevertheless, these daily auctions are not completely irrelevant, because MVM's bids are differentiated by plants. Based on the above, it can be concluded that a regional market for ancillary services would be a big step forward, but there are also a lot of difficulties to overcome, mainly regarding cross border capacity issues.

2.5.2. Electrical Energy Fees

Economic and transportation ministerial decree No. 5/2005 on the midterm regulation on the fees of distribution, transmission, system operation, and system level services (together: use of electrical energy system) distinguishes be-

³⁹ http://www.ceer-eu.org/portal/page/portal/ERGEG_HOME/ERGEG_DOCS/NATIONAL_REPORTS/2006/E06_NR_Hungary-EN.doc

⁴⁰ The only exemption is the so-called „emergency reserve”, which is provided by a long term contract. These are reserve gas turbines with a capacity of about 390 MW altogether (ca. 30% of contracted reserves).

⁴¹ The reserve types differ mainly by reaction time and mode (automatic/manual).

⁴² Voltage and reactive power control, operational safety services (black-start).

⁴³ For primary reserves only capacity fee is paid.

tween electrical energy transmission fees, electrical energy distribution fees, system operation fees, and fees for the use of electrical energy system level services. The decree provides for a midterm price-regulation mechanism. When defining the starting prices, the following are considered: balance-sheets and financial statements (profit and loss account), the accounting report and its data, calculations and statistics according to the directive of the HEO⁴⁴, and essential changes of the previous year. Other factors include inflation, legal changes, cost and volume changes, provisions considered reliable, results of the asset and cost review completed by the HEO and its experts, level and structure of prices of the previous period, results of other comparative studies, volume data, and corrections of electrical energy balances.

The decree establishes the formula for calculation of starting prices. Yearly price corrections and extraordinary price corrections are prescribed in a manner similar to the case of electricity sold by the public utility wholesale trader for public utility purposes (Section 2.2.1.). The decree provides the formulas for the abovementioned four fees. Economic and transportation ministerial decree No. 57/2002 specifies the content of the fees. Fees of the system operation cover the costs of compensation of grid loss, changeover costs, subsidy of renewable sources-generated energy, all other justified costs of the system operator, and the fee of the subsidies for reorganising the system of the coal industry. Fees for the use of electrical energy system level services include the following costs: assuring the regulation reserve, control of voltage and unproductive energy, services for safety of operations, treatment of bottlenecks, and balancing regulation. Transmission fees are comprised of general transmission fees and fees for unproductive energy transmission. Distribution fees involve a distributor basic fee, distributor capacity fee, distributor circulation fee, distributor unproductive energy fee, distributor loss fee, and distributor fee for balancing schedules. The decree lays down all the fees and elements of fees (detailed above) in HUF/kWh; that is, all the fees depend on volume data.

2.6. Conclusions

It can be noted that market forces are absent, or are far too controlled and distorted by the series of provisions regulating prices. No indicative market prices are present; instead, institutional lobbies are too strong. The provisions stipulate too many special cases that also distort the sector. Considering the context, it can be stated that environmental concerns or import dependence are not the most important questions for players of this sector. In the lack of some kind of energy strategy, even the government cannot give importance to these principles. On the

⁴⁴ 1/2002 (XII.31.) HEO directive on the financial unbundling of activities of electricity companies.

18th of June, 2007 the Hungarian Parliament accepted the new Act on Electrical Energy. As to price liberalisation, the new Act lays down new rules, so that the largest consumers can only buy electrical energy from the liberalised market and administrative prices are no longer valid for them. In addition there is a theoretical possibility for each consumer to buy electrical energy from the free market. This is only a part that derives from the EU Directive.⁴⁵

On the other hand, encouragement of competition remains lacking, on the generation side and also on the trading side. From this point of view, the new Act does not solve anything, as nothing is changed on the supply side. The main reason of this is that the Act does not deal with the PPAs of MVM concluded with generators. When Parliament prepared the bill, this issue was forgotten. As a result, MVM has found itself in an even stronger dominant position, without real market or state control. The MVM today is a very strong integrated company with everything that one can have in the electricity sector: TSO, a nuclear generator, PPAs, and no further price control. All this means that the new Act is a good start, but legislators did not complete their work. MVM disposes of 80% of the Hungarian supply, and by integrating the Hungarian TSO within the holding it has dominant control over foreign trading as well.⁴⁶

3. Closing remarks

3. 1. Institutional Proposals

It is rather clear from the case study of price regulation on the Hungarian energy market that transition to a market economy proved to be much more difficult in the energy field. Hungarian regulation must face serious shortcomings and cope with institutional backwardness, but the most important barrier to making a modern energy sector seems to have a political character. The Ministry of Economy openly announced that during the law-making process of the new electricity law, the two biggest political parties helped the interests of MVM to preserve its monopoly. The Prime Minister proclaimed soon after the Act was enacted that MVM must be divided and privatised. He also admitted that huge pressure was exerted for the sake of the monopolists.⁴⁷ Due to these

⁴⁵ „A szociális alapon számított áramárat el kellene felejteni” – Magyar Narancs, the 27th of September 2007, interview with Mr. Péter KADERJÁK, former president of HEO, today leader of the Regional Institute for Energy Policy Research.

⁴⁶ „A szociális alapon számított áramárat el kellene felejteni” – Magyar Narancs, the 27th of September 2007, interview with Mr. Péter KADERJÁK, former president of HEO, today leader of Regional Institute for Energy Policy Research.

⁴⁷ „Hungary's government will sack the management of state-owned power wholesaler MVM and amend regulations to curb the firm's quasi monopoly ahead of its planned privatization,

forces, the Hungarian government admitted the deficiency of the electricity liberalization: it was unsuccessful in separating the wholesale trader from the owner of the grid, as well as production from commercial activities.

The domestic gas market is liberalised, the major part being imported from Russia. High import dependency has its own risks, as it remains undiversified. Ninety percent of Hungarian households are connected to the gas grid. However, structural problems may mainly be found in the electricity market. Long term contracts made the electricity market seriously unbalanced, strengthening the monopoly of the single actor. Strong populist argumentation, from both sides of the political arena, helps to protect and preserve this situation. The importance of the transparency of the relevant information is clear. The decisions, dilemmas, and hardships of sector should be openly discussed. In the present situation, privatisation and an appropriately-based division of the monopoly would not raise the price of the electricity; meanwhile, a huge price increase is the strongest argument in the hands of politicians and the lobbyists behind them.

The price control of the government has been followed by a strong monopoly. For a healthy market, the physical infrastructure must be maintained by an independent organization. Today this is not the case; MAVIR is owned as a

government spokesman David *Daróczy* said: “The steps are intended to eliminate within a reasonable time the factors leading to (MVM's) monopolistic nature,” *Daróczy* told a news conference on Tuesday. “There's only one thing worse than an unjustified state-owned monopoly, a privately held one,” *Daróczy* added.

The moves are intended to curb the recent sharp increase in electricity prices, which pushed energy producer prices up by 12.7 percent on the month in January. *Daróczy* said the government's move comes on the heels of sharply critical studies by the competition authority, the energy regulator and even the central bank. MVM owns two of the top three Hungarian power generators, the entire grid, controls 75 to 80 percent of the wholesale market through long-term contracts, controls cross-border capacity and recently purchased a 10 percent stake in electricity retailer ELMÜ ELMU.BU. *Daróczy* could not say what actions the government would take and the government asked the finance minister to draw up an action plan. In separate studies made public on Tuesday, the energy regulator said MVM's monopoly and ability to abuse its market position could push prices still higher while the competition authority said privatization in the current structure carried overwhelming risks to both investors and the economy. “Under current circumstances, floating MVM would make market liberalisation difficult, conserve energy users' competitive disadvantage of unpredictable proportions and limit the government's ability ... to tackle the issue,” the competition authority said in a study. Hungary passed a new electricity market bill last year which aimed at liberalizing the market but failed to tackle MVM's powers and instead, gave it further authority to enter the retail and wholesale markets.

Energy sector players had voiced harsh criticism for the new law last year but the government dismissed those claims, saying that only a strong MVM with its long term power purchase agreements could insulate Hungary from higher prices and protect safety of supply. As Hungary's generating capacity is outdated, Hungary is one of the biggest net importers of electricity as a percentage of total usage.” (<http://uk.reuters.com/article/oilRpt/idUKL1163359920080311?sp=true>. (08.05. 2008).

MVM holding, by the electricity monopolist.⁴⁸ Consequently, MAVIR cannot operate as an independent system-operator. Thus the independence of MAVIR must be guaranteed. Optimally, the separation is essential before the real privatisation of MVM (public wholesaler). The independence and authority of the Hungarian Energy Office is also a requirement for a balanced, controlled market. Presently, the possibilities of intervention by the HEO and the Economic Competition Office are unstable and dubious. There is no sign of any competition on the supply side of the electricity market. Due to weak political commitment, import-liberalisation has also failed. It is urgent to open completely the market, since imports should have a favourable impact in a small country. This opening is not in the interest of the monopolist MVM. It is also to be feared that this backwardness will be detrimental to the Hungarian actors in the regional electricity market.

The present situation could be characterised as price liberalisation without competition. MVM, which organises electricity auctions, is also the system organiser and it has the possession of almost all of the domestic plant capacity. It is also clear that efficient competition cannot emerge if the market participant is not legally obliged to place the bound capacities on the market and renegotiate the long-term contracts.⁴⁹ It is urgent to separate MAVIR from MVM by the decision of the state as owner. It would be profitable if it could happen openly with high transparency. The authority and functions of the national energy regulator, the HEO, must be re-evaluated and modified for the sake of independence (the market and political independence are both uncertain now) and efficiency. Long-term contracts must be renegotiated or terminated as European officials demand, to evade the detrimental political and market consequences. For the legitimacy of this decision, transparent, open processes and argumentation must be utilised; otherwise populist traps support the monopolist position. For real competition, the independence of the system operator must be guaranteed, as well as regulated access to the grid. The conditions for import competition must be created. Activities related to the possession of the grid must be separated from production and commercial activities.

Finally, some general remarks and recommendations relating to energy regulation follow. Hungarian energy regulation is under continuous modification. During the next, hopefully short, period the legal environment should be stabilised. Political and ideological burdens hinder stabilisation till the consumer-price remains the only issue. The dominant role of national/state level decisions seems problematic while decision-making processes lack participation and transparency. For the sake of trust, both participation and transparency should

⁴⁸ MAVIR is the independent system operator and also auctioneer, owner of the public wholesaler.

⁴⁹ <http://rekk.uni-corvinus.hu/pdf/epb2008-1.pdf>

be strengthened. There are some civil organisations for consumer-protection, but real participation is low. Transparency of price-regulation in itself is hardly able to activate participation. The social conditions for institutional trust in general are in an embryonic state; neither state institutions nor the market enjoy social trust. The efficient functioning of the energy market can modify this situation in the long run. For a transparent, open and efficient system, information asymmetries should be eliminated. Bench-marking and monitoring by civil organisations are possible if operational data, price-regulation, and other relevant information are accessible.

3.2. Special Difficulties of Reflexivity: the Limits of General Worldview

After the model-changes of the energy market in 2008, the concentration of the wholesale market has even been strengthened: the position of the MVM became more dominant. In Hungary, as opposed to in other former socialist states, the division of different segments is purely legal; it does not concern ownership-rights. The lack of separation and monopoly makes the necessary steps for system stability by MAVIR unlikely, since MVM is its owner. MVM has such a dominant position as owner, contractor, and regulator that the market opening on demand side and the free choice of distributors brought limited changes.

The energy market is not vertically integrated, and is not sufficiently competitive. The level of wholesale market concentration is extremely high: no such level of concentration is known in other spheres. Thus “under the prevailing market structure the scope for the emergence of alternative wholesalers with a large enough consumer portfolio is strictly restricted.”⁵⁰ In Hungary it seems a durable situation that new IPP investors will be forced to contract with the dominant incumbents, thus reinforcing the present market structure. As we have seen, the inconsistent price liberalisation in the course of demand side market opening can result in conserving a relatively extensive TM and thus create a barrier to the international integration of that market. The removal of regulated final prices can also help in fully liberalising generation prices, a precondition to competition in generation. Inconsistent price liberalisation leads to a “hybrid” market model. This model will always tempt policy makers to restrict final electricity prices and to subsidise tariff customers in some way.⁵¹

Seeking the alternatives of the two traditional regulative forces, namely the command-and-control and market, the Hungarian case study on energy price regulation directs our attention to some preconditions of going toward reflexivity. It seems plausible that a certain amount of marketisation is essential

⁵⁰ A 2008. évi árampiaci modellváltás rövid értékelése, REKK, Budapesti Corvinus Egyetem, Műhelytanulmány, 2008-1.

⁵¹ *ibid.*

not only to achieve effectiveness and transparency, but even to realise any further steps toward institutional learning or reflexivity. Presently, there are no signs of institutional or social, collective learning processes. Some other weaknesses are also clear: the absence of trust and monitoring or benchmarking. Not only the lack of trust limits the process of collective learning, but the distorted nature of the market has the same effect. These shortcomings stem from the distorted market, paradoxically overcoming the traditional market regulation needs, firstly a working, balanced market structure. Thus, as institutional proposals it can be stated that any measures aiming at reflexivity and mutual learning must be accompanied by solid steps towards transparency and clear market relations, because, as the case study shows, without these traditional, market oriented governance tools, there are no possibilities to stabilise the energy sector and no chance for a more reflexive regulation.

At this point a further, general dilemma emerges: is it a realistic expectation that reflexive measures and methods should function without a proper social, political, and legal background, without similar traditions? Energy regulation seems one of the most complicated regulatory fields, full of strong monopolies and inherited bureaucratic reflexes, which durably limit the possibilities of any deviation from the old methods. Or, do precisely these troubles create causes for radically different tools, alternatives to the state-market dichotomy? There are strong arguments also for fundamental changes; radical solutions may answer the most demanding problems. Even in this case, besides the permanent “capacitating” of actors for learning, the fundamental market shortcomings should be solved. There is a further dilemma concerning the interests of the relevant actors: do the processes of privatisation, marketisation or the restriction of state measures help or hinder another kind of process? Is it a real possibility to facilitate without any delay processes that differ strongly?

SUMMARY

Price Regulation in Hungary in the Electricity Market

GERGELY BAJUSZ – ZOLTÁN FLECK

Energy regulation is a complex, multi-player system. The essay discusses one of its sub-systems: price regulation, which is also rather complex. Price regulation traditionally has two types: state regulation and market-based regulation. A closer look at pricing shows the tensions and dilemmas that characterize energy regulation as a whole. Hungary is presently experiencing the difficulties of a transition from state to market-based regulation. Resolute steps have been

taken to reduce state involvement and to restructure the country's energy system. Privatization is offering adequate opportunities for a transformation. New tensions have however arisen because the different regulation systems are not compatible, and presently the state and private sectors greatly vary in size. The essay identifies the woes of this transition.

RESÜMEE

Preisregulierung auf dem ungarischen Elektrizitätsmarkt

GERGELY BAJUSZ – ZOLTÁN FLECK

Die Studie stellt aus dem komplexen System der Energiesektor-Regelung die Frage der an sich schon komplexen Preisregulierung vor. Die Frage der Preisbestimmung, die als Fallbeispiel der Forschung nach Alternativen der beiden traditionellen Regelungstypen – der staatlichen und der Marktfinanzierung – sucht, enthält all jene Spannungen und Dilemmas, die als allgemeine Probleme der Regelung erscheinen und aus den speziellen Spannungen des Übergangs folgen. Der Abbau, die Umstrukturierung der umfassenden Rolle des Staates befindet sich in fortgeschrittenem Stadium, die Privatisierung hat die Möglichkeit der Umgestaltung der Regelung geschaffen. Zugleich bereitet die Frage der Kompatibilität und des Verhältnisses der abweichenden Regelungslogiken untereinander weitere Spannungen. Die Studie stellt diesen dazwischen liegenden Prozess vor.

