



GOVERNMENT FAILURES, RENT-SEEKING AND RISKS OF CORRUPTION IN THE HUNGARIAN ELECTRICITY SECTOR

"In Nigeria, corruption isn't part of government, it's the object of government, said a Nigerian political scientist who asked not to be named."

(Washington Post, Tuesday, June 9, 1998; Page A01)

"...the process of the preparation of laws is that market actors write the law."

(Part of an interview – Júlia Papp)

Budapest, April 2010.

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SUMMARY

Good governance is a common good and as such, it does indeed contribute to a nation's well-being even in the short run.

In the present study we look at how far state regulation in the third millennium in a special market in Hungary, the electricity market, came hand in hand with phenomena termed rent-seeking, corruption and government failure by economic science.

Primarily, our study sets out to reconstruct the history of regulation, based on two case studies, with the help of presently available documents and interviews with participants and experts. One study covers the so-called "energy market liberalisation", the other the quota distribution of wind power station installation. To this end we used analytical tools from the fields of socio-economics and economics, as well as trying to grasp the narrative aspect of events.

The assessment of the regulation of the Hungarian electricity market from 2004 to 2008 has been carried out by many (mainly economists) in many ways. However, there are hardly any examples of an analysis of the institutional conditions determining the regulation of the market. Our study is an attempt at exactly that.

The analysis of "market liberalisation" shows how the debate in the press about government measures revolved around the necessity of the step and the role played by the European Union. However, the companies longing for a free market encountered much more practical problems. The success of changing service providers was in practice most often down to regulation. We will show how consumers' opinions were primarily determined by experience gathered when changing service providers, so, in the end, we should see the applied regulation as the main source of consumer disappointment with "liberalisation". The assessment of the regulation of the electricity industry pointed out that in this case we are looking at something very familiar and well known in economics literature: state capture.

The lack of transparency in the preparation of regulatory decisions, market players' open involvement in government decisions through informal channels and in a non-transparent way – which also points to the failure to regulate lobbying in Hungary – contributed to a situation where the Hungarian electricity sector is characterised by a high demand for corruption and a matching supply.

The resulting method of regulation and the simulated market run by its actors opened up the opportunity of making 26-28 billion Hungarian Forints (HUF) worth of rent-like income in 2008 for the central actor in electricity production and distribution, the state-owned Hungarian Electricity Company Zrt (MVM). The fate of this rent is unknown, its path littered with question marks.

The demand for and practice of directly influencing, "controlling" regulation can be observed in the business circles effected by regulation (rent-seeking lobby), while on the regulator's side we can observe its acceptance and encouragement and occasionally, the enforcement of corruptive services can also be assumed. This can be present at three points of the administrative procedure: a) in the phase of preparing legislation; b) during the negotiations within the state apparatus, and c) during parliamentary decision-making.

Energy market experts predict a rapid development in the use of renewable energy sources over the coming years, including wind power. However, the unpredictability of regulation and the expensive, sometimes time-consuming licensing procedure in Hungary has set back the initial enthusiasm of those wanting to invest in wind power in recent years.



We look at the process of building wind power stations from the very beginning through the different phases of implementation. We introduce the overregulated licensing procedure, carrying traditional corruption risks in the present market environment. The number of permits to be obtained – having learnt about the numerous opportunities for corruption in Hungarian licensing procedures from our previous research – suggests a risk of corrupt transactions not to be underestimated during the licensing process for wind power stations. Especially when the regulator sets a deadline too short for those investors with permits to apply to set up wind power station capacity.

Apart from the recent regulation of wind power stations we also touch upon the regulation of renewable energy production in the course of our research.

We establish that today in Hungary the regulation of green energy support is a typical government failure. To stimulate renewable energy production the regulator introduced a compulsory feed-in tariff above the market price for those producing from renewable sources. Thus, given the institutional and regulatory background – the possibility and practice of capture of the regulator – created a significant demand for corruption, and made it possible to widen the circle of those enjoying compulsory feed-in tariffs according to lobbying demands. This happened in such a way that now even technologies that cannot otherwise be classified together with "renewable energy" producing technologies are counted here. This is a typical case of rent-seeking and this situation carries four consequences:

- a) It strengthens the rent-seeking willingness of business groups. Seeing the success of efforts put into getting rents, others will also want to break into this attractive market; and this effort of theirs will not even have to be restricted to the production of "renewable energy" or even to the electricity market.
- b) It increases the supply of opportunities for corruption for the government, increasing corruption risks resulting from this. The regulator seeing that it can make rules that help the corrupt behaviour of the regulated will count on the possibility of corruption among the potential advantages in the coming regulatory procedures.
- c) This all results in the increase in the price of electricity irrespective of market influences even in the short term, and passes the extra burden to the extent of the rent received onto different groups of consumers (e.g. households, public and business spheres). Since these consumer groups are numerous, the extra cost per consumer resulting from rent-seeking is low. This results in a situation that fits the theory: the "counter-lobbying" groups to mitigate rent-seeking are not easily organised.
- d) Social costs are increased by the appearance of "counter-lobbying" groups, which step onto the scene after some (6 to 12 months) delay, and are primarily organised among the large electricity consuming companies. These may be founded exactly to minimalise or "compensate" the rents created by the compulsory feed-in tariff system. In the second case "compensation" is nothing other than the rent-seeking that is launched for attaining the rents that can be defined in other fields (e.g. the tax contributions related to employment). Thus, in harmony with economic theory, the rent-seeking behaviour successful in one market will bring along rent-seeking behaviour in other markets too.

Hence, the method of supporting renewable energies applied in Hungary – given the present Hungarian regulatory and institutional environment – is fundamentally questioned and becomes yet another example of government failure.

At the end of the study we summarise the general experiences – resulting partly from the presented case studies, partly from the theoretical literature of rent-seeking, corruption and government failures – which may help the reform of the electricity market's regulatory and institutional background and to create regulatory methods which serve social well-being better than the present ones.



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INTRODUCTION

Two Members of the Hungarian Parliament, György Podolák (MSZP) and Dr. János Fónagy (Fidesz) submitted a 60 page amendment as a private member's proposal in the parliament entitled "About the amendment of certain laws on energy (T/11303)" on 20 November, 2009. In this the members proposed various amendments to three laws regulating different parts of the energy market. The general and detailed debate of the amendment, including the voting on both the amendments and the move itself, amounted to a total of 66 minutes. The Parliament passed the amendments on 14 December, 2009 with 329 yes votes and 17 abstentions.

Nothing was heard about the state apparatus's preparation of this bill or the professional debate on it, and its passing seemed to have surprised the institutions of the state as well as the experts dealing with the energy market. This is also interesting because it is the parliament that decides on how to ensure the independence of systems operation, so important in networked industries – about which experts usually go into long and heated arguments both here and abroad.²

It seems trivial in comparison that this new law overrode months of work by the Hungarian Energy Office on regulation concerning some segments of the energy sector, namely the power plants falling within the scope of the so-called compulsory feed-in tariff. When compared with the Hungarian Energy Office's draft proposal, this new law allocated rent to particular business groups. According to the impact study completed by the Hungarian Energy Office on 21 December, 2009, the sum of rents resulting from this new law is 12.7 billion HUF at 2009 prices between 2011 and 2015, should the regulation remain unchanged.³

Another result of the bill passing should also be taken into consideration: electricity users – the actual payers of the rent – have had to pay slightly higher electricity prices than they would have had the bill been refused.⁴

Besides looking for an explanation for the causes of this situation – which could be basically anything – the basic question is how is this possible today in Hungary? What mechanisms or institutional peculiarities make it possible that legislators put such little consideration on the risk of the reaction of voters, other interest groups and independent organisations and experts – do they really not consider the economic consequences of a law they pass?

The present study seeks to answer this question, among many others.

We examine the connections between state regulation, rent-seeking and corruption risks through the study of two instances of electricity market. One of them is the story of the partial opening of the market ('liberalisation') in 2008, the other one is the wind power station licensing procedure, with special regard to the background of the quota allocation in 2006 and the chosen method of subsidising renewable energy. We have reviewed the articles and reports published in the press as well as the available documents and background studies on regulation (laws, decrees) and also analyses by energy market experts.

1

See: http://www.parlament.hu/irom38/11303/11303.pdf

² Balázs Felsmann pointed out the surreality of such an individual proposal for an amendment in his article depicting the situation perfectly: Shaky gas deals before the lights go out in Parliament: Világgazdaság, 26 November, 2009. Source: http://www.vg.hu/velemeny/hatter/razos-es-gazos-ugyek-parlamenti-villanyoltas-elott-297605.

³ See: On the prolonging of compulsory feed-in. MEH, 21 December, 2009. page 4. Source: http://www.eh.gov.hu/gcpdocs/200912/20091219 kat hosszabbitas honlapra 50.pdf

⁴ The work of the 346 members of parliament taking part in the voting 'produced' 36.7 million HUF of rent in 66 minutes, or, if you like, 'produced' that much of a loss for a great part of society (the consumers). This, counted as an hourly wage is worth 33.4 million HUF/hour. How much should each MP be paid so that his or her legislative work would cause a loss of a lesser magnitude, say, 2-3 million HUF/hour loss to consumers?

Beyond all this, we conducted 22 semi-structured interviews with experts, market players and politicians taking or having taken part in the regulation.

As the topic of the interviews also touched upon sensitive areas (rent-seeking, corruption) – to retain the anonymity of those questioned, we assigned pseudonyms to all interviewees in the study.⁵

Our aim is to explain the causes and effects of the anecdotal evidence in an economic context; to shed light on their mechanisms and effects, institutional conditions and economic and welfare consequences.

After having put down the scripts of the interviews, we destroyed the original notes and files, so the real names are untraceable.

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⁵ We were aiming to win the confidence of our interviewees by using the technique of the BCE Corruption Research Centre as well – we let them know about the proceedings followed through the interviews in advance. We managed to create an atmosphere of mutual trust necessary for the interviews with almost everybody.



1. THEORETICAL CONSIDERATIONS

1.1. Basic concepts and models

It is necessary to clarify a few relevant, basic concepts before beginning to explore this area of research. This will make it somewhat easier to understand the models which will be introduced later. Estimation of rents is the procedure most often used to get a grasp of the costs of corruption. In this chapter we interpret the rent concept in relation to the concept of natural monopoly and review the loss of efficiency stemming from monopoly.

Like many other industrial sectors where the service is delivered to the customer through some network or grid (like, for example, water, gas and telephone lines), the energy sector falls into the category of natural monopoly. Those branches of industry where the service can be more cheaply delivered by one company can be regarded as natural monopolies. The company's costs can be divided into two main parts: the set up and maintenance of the network (putting down pipelines or cables), and the cost of providing a service unit (the kilowatt, cube metre procurement price) The more consumers a company provides for, the more able it is to lower the costs of providing the service. This is easy to comprehend: imagine that it costs 10 billion Hungarian Forints (HUF) to build a grid, and the company produces any amount of electricity at the same unit cost. If consumers purchase 10 million kilowatt hours of energy, then the consumer's share of the cost per unit is 100 HUF. If the consumers use twice as much electricity, then the cost of getting it to the consumer costs the company only 50 HUF. This is known as economies of scale.

Due to economies of scale the company that first develops a network has a natural monopoly: the new company is only able to provide the service at a higher cost. If they still entered the market, the company already on the market would push them out of the competition – for a short time they would undercut the price of the newcomer, hence nobody would change to the other service provider.

The existence of natural monopolies therefore brings up problems, namely the problems that arise from monopolies. The 'monopolist' will sell the service above the market price. Besides this, the existence of monopolies leads to three significant losses: the loss of productive, dynamic and allocative efficiency.

The crux of productive efficiency loss is that the company will not necessarily employ the most efficient or the cheapest technology.

Dynamic efficiency loss means that the monopolist already on the market is not innovative, or is slower to innovate than the rate expected in a perfect competition. It does not have an interest in carrying out research as there is no market player that would endanger their position.

The allocative efficiency loss – in other words deadweight loss – is the most talked about loss of efficiency in the case of monopolies. In perfect competition the companies can only sell on the marginal cost – cost of producing one product unit, so their profit will be zero. A monopolist is capable of selling a smaller amount at a higher price than that. The reason for the loss of efficiency is that the monopolist is capable of raising the price of the good above the marginal costs.

The existence of natural monopolies is, therefore, necessary due to economies of scale because it is able to ensure the cheapest services, but it is accompanied by significant disadvantages for the consumer.



To understand the phenomenon of corruption we will refer to two main theoretical economic models: that of the agency dilemma and of the regulatory-rent-seeker. The agency dilemma model shows how an institutional background can cause corruption to happen on the part of the corrupted, and includes some recommendations. Models always examine a narrow segment of the evolution and treatment of corruption; hence their normative findings will not necessarily solve the whole problem.

The regulatory-rent-seeker model discusses balancing outcomes developing on the market and the effect of and absorption of rents. It is necessary to look at both models together to interpret how corruption comes about, to understand it and treat it.

Agency dilemma model

The agency dilemma model does not itself describe the phenomena of corruption, but it is worth describing briefly, so that we substantiate the theories on corruption. In the models discussing the agency dilemma – in other words the moral risk – problem, most often a company or owner (contractor) and a manager or employee (agent) is involved. With his or her enterprise the contractor would like to make the highest profit, so he pays some level of salary to the agent, who in exchange works on the project's realisation. The agent can relax or work hard during working hours: if he works hard the company makes a higher profit, if he relaxes, the profit is lower. The contractor is not able to pay direct attention to how the agent performs, but is only able to see the creation of a high or low profit by the end of the project. If the two actors sign a simple work contract which is not related to performance but is a fixed wage, then due to the imbalance of information existing between the two actors the agent has opportunity to relax without any consequences. In order to prevent this, the contractor makes a contract with the agent in which, should higher profit be made, a bonus is paid. (Mas-Colell, Greene & Whinston, 1995. 478–488. o.)

Based on the agency dilemma model Laffont and Tirole give a possible definition of corruption.

In the model the government is the contractor, the regulatory authority is the agent and the company to be regulated is the corruptor.

The government sets up a division which regulates the price of electricity. Industry generates the electricity at a high or low cost. The government gives single subsidies to the low cost producer. The government is not able to observe the industry's cost structure, but the regulatory authority probably can, to some extent. The government's aim is to constrain industry with the help of the regulatory authority, and set the lowest price for consumers. The aim of industry is to maximise profits. The regulatory authority also maximises its income. However, the income can come from the government or from the industry that is being regulated. As the government is not capable of overseeing whether the regulatory body's decisions were influenced by the industry or not, officials become corrupt. (Laffont & Tirole, 1998. pp. 475–485.) The government cannot raise the salaries so they are higher than what the corruptors pay, because then society pays through tax what they would otherwise lose in corruption. A possible solution is to divide up the regulatory tasks and separate them between different authorities. If it is necessary to get two or more authorities' permission for some regulation that is damaging to consumers, then, because of the higher bribes, the company will find it more difficult to corrupt. (Laffont & Martimort, 1999.)

Corruption does not only take the form of direct money transfers: one method of payment is the employment of the regulator at a regulated company as an advisor (naturally, after he or she no longer works at the regulatory authority). Those experts who have come from industry to work in regulation are fundamentally more accommodating with the regulated companies as due to their professional socialisation they sympathise with the industry's problems. Those seeking employment in the industry in the future also only take moderate steps to control them. According to the study by Leaver, the



officials in charge of regulating the price of electricity contracted for a fixed period of time between 1982 and 1990 in the USA regulated the industry less times besides decreasing production costs, if they were appointed for a shorter period of time. They also rarely regulated the industry in the final years of their contracts. According to the model's conclusions, in order to tackle corruption it is worth appointing officials for an indefinite length of time. The officials' business-friendly regulation can be pointed out by independent research institutes and consumer's groups — dialogue between the regulatory authority and similar organisations lowers the cases of corruption. (Leaver, 2009.)

State capture and rent-seeking

The Agency Dilemma Model explains the phenomenon of corruption and makes some suggestions for the reform of institutional environments. It does not, however, give any estimate of the sums of money changing hands through corruption. The other set of models describing corruption comprises of the economic theory of regulation and the theory of regulatory capture.

The classical, normative theory of regulation is that any regulatory body created by the state works for the consumer's benefit with an eye on public interest. Due to monopolies or other factors distorting competition some kind of consumer's demand arises, a desire for regulation. In reaction to this demand the government creates the regulatory authority. Stigler pointed out that because of the large numbers of consumers and the small amount of benefit to the individual this demand does not present itself in reality. The consumers' demands also need communicated to the state: what the majority of consumers really want has to be assessed - quality or low price, security of supply perhaps, or environmentally friendly electricity? Even if they actually agree on the common goal, it is difficult to organise the group so that they all contribute equally to the realisation. In this way the theory does not explain why the regulation is actually being made. (Peltzman, p. 1976. 211.) According to the normative theory of regulation, state regulation would come into being in the heavily concentrated industries or those causing the consumers a great deal of harm.

Interestingly, over-regulation has occurred in the less concentrated industries too: according to observations, strict quality and pricing controls have often been introduced in the haulage companies' and taxi circles too. (Posner, 1974. p. 336.) Monopoly never existed on the taxi companies' market which would have brought the regulation into being: in 2005 however, the Budapest companies themselves asked for the introduction of regulated, quality-guaranteeing prices. On the basis of their recommendation the regulated prices would have been much higher than the actual transfer fee. (Lőrincz, 2007. p. 114.)

As the classic, normative approach to regulation was not able to give an answer to the regulation coming into effect in less concentrated industries, the 'capture theory' came into being as a new theory. Capture theory says that regulation does not serve the consumer, rather it serves the interests of the regulated industries. The industry is capable of influencing the authority regulating it because, in the event of favourable regulation coming into being, the benefit to each individual is much greater than in the case of the consumers and the occasional freeloader is easily punished. (Olson, 1997. pp. 17–55.) The regulated industry's companies can lobby for financial support, can get over-the-top security regulations introduced – expensive regulations which, on paper, serve the consumer's interest but obstruct other companies entering the market – or get effective price controls introduced too. (Stigler, 1971. pp. 4–6. o.)

The theory was formalised by Stigler, then later Peltzman refined it. Stigler came to the conclusion that at the time of setting price controls the price is placed somewhere between the competitive and the monopoly price, namely because the regulator wanted to act favourably for two groups, the consumers and the industry. (Stigler, 1971.) Peltzman further developed Stigler's argument: according to his prognosis, regulation occurs in those industries where the monopoly price falls suitably far away from



the market price, meaning the gains are considerable. (Peltzman, 1976.)

The theoretical models introduced so far have given an explanation about how corruption evolves but have not given a basis for assessing the damage it causes. With the help of the theory of rent-seeking we can make rough estimates of this too.

The state, acting in its capacity as regulator, often brings into being a regulated market where entry is controlled by permits. Thus, it creates the market for permits too: the potential entrants start to compete for the potential profit of the market, otherwise known as the rent. In economic literature, the lobby activities carried out to obtain the rent from an artificial market created by the government is called rent-seeking. This is considered damaging as the companies divert resources into procuring the rent that would otherwise be used for creating profit.

The costs of rent-seeking behaviour include not only those resources used for lobbying, but also the costs of creating the regulation: the regulatory authority orders impact reports and carries out research, and finally, a decision is made at the expense of the consumers. As a result of rent-seeking the whole rent may disappear through lobby activities and corruption. Let us suppose that many companies are competing to secure a monopoly. The bigger the amount they spend on lobbying or bribery, the more probable it is that they will get it. As these companies are identical to each other in all respects, all the companies invest the same amount into rent-seeking. The more companies compete for the rent, the greater the loss: if anyone can enter the competition for the rent, then the whole rent disappears in the rent-seeking. (Mueller, 2003. pp. 334–338.)

By combining the lessons learned from these two sets of models we can better understand the phenomenon of corruption. According to the theory of rent-seeking, corruption is most likely to occur in those industries where the potential benefits are the greatest. The companies launch lobbying or illegal corruption in order to secure regulation to their benefit. Due to the imbalance in information and moral risks the regulator is corruptible. This is why dealing with corruption can be tackled from two sides: by removing the artificial benefits which make corruption possible or by tempering the imbalances in information through institutional reorganisation.

1.2. General characteristics of the electricity market

A few peculiarities of the electricity market favour the use of market power and facilitate the influencing of the regulatory authority.

On the supply side the electricity service consists of 5 main fields: production, transmission, systems operation, distribution and services. The greater part of production happens in power stations, the generated energy is bought by trading companies, the current is passed through high voltage cables to distributors, which then reaches the final consumers through the retailers. The systems operator is responsible for balancing the system.

Electricity is not storable, hence the supply and demand in the system has to be balanced at every moment. This balance is maintained by the systems operator: an estimate of the daily consumption is made based on annual consumption data. A reserve is provided for in the system to cover incidental fluctuations: contracts are made with power stations which are capable of covering power drop out or suspending generation in less than 30 seconds. In Hungary, there is little competition on the compensatory energy market: although the tenders are issued annually, the winner is most often the owner of the systems operator MAVIR, which is at the same time the largest market player, MVM.

Due to the high fixed costs in developing the grid, a vertically integrated monopoly evolved in the industry. One company covered the production, the transmission, the systems operation and the service tasks. Due to security of supply and the strategic characteristics of the electricity market, liberalisation was a long time in coming, price control tempered the disadvantages the monopoly caused to society. The dismantling of vertically integrated monopoly is made possible by technical



modernisation (reduction in the size of power stations and the development of systems operation through computerisation) and the wave of deregulation started in the 1970s and continuing to this day. (Paizs & Mészáros, 2003. p. 735.) The production and services market was opened on both the demand and supply sides. Liberalisation was not able to reach all segments: systems control and transmission are still counted as natural monopolies.

At the time of opening the market one problem rises in that the vertically integrated company has market dominance: it has cheap access to the transmission grid, it is familiar with the operation of the market, it is in contact with all the power stations and the consumers have already got used to it as an energy supplier. A company enjoying market dominance can decrease production or set a price higher than the marginal costs. In both cases the result is the same: scarcity and price grow on the market. It is more difficult to prove that a company is using competition restricting behaviour, than the existence of cartels: technical problems can be blamed for the decrease in production, furthermore, the regulatory authority is not always capable of overseeing individual company's emissions. (Stoft, 2002. p. 316.; Hunt, 2002. pp. 89–91.)

Naturally, the restriction of supply does not show in the daily or real-time market, as this would endanger the system's security and reduce the market domineer's profit, but rather over the long term. The higher price level, however, attracts potential players to the market, which will restrict the incumbent company's market advantage. Abuse of market dominance, besides a loss of dead-weight efficiency, causes a loss of productive efficiency too: generation can be reduced from those power stations which produce more cheaply than the other ones. In this way the company enjoying market dominance increases its revenue and assists in the operation of obsolete power stations. Dominance is similar to monopoly, but a smaller amount of damage is caused to society.

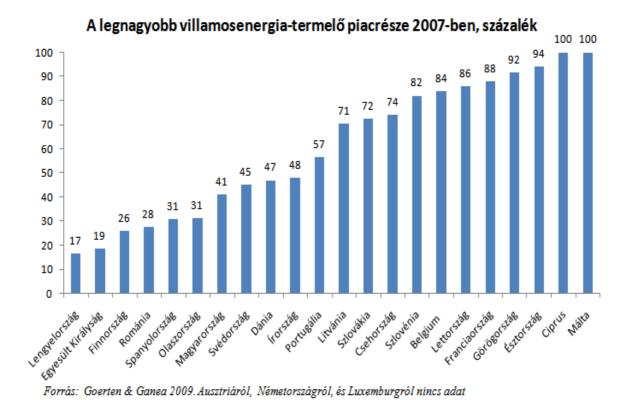


Diagram 1.2.1. The largest electricity producer's market share in 2007, %.



The development of market dominance is aided by supply side concentration, difficulties in entering the industry and demand inflexibility. All of these characteristics can be found in the electricity market. In almost half of the EU member states production market concentration is above 70%. (Goerten & Ganea, 2009.) The cost of investment and securing the necessary permits to build a power station impose serious entrance restrictions to the market.

Regarding the demand side it can be said that the demand for electricity is inflexible in the short and long term, in other words, consumption does not significantly drop due to the influence of incidental price increases. (Elek & Kézdi, 2003.) Electricity accounted for 30-40% of household energy expenditure between 1996 and 2002, and since then has grown at a greater extent than other energy spending. (Berendi & Horváth, 2004.)

To summarise we can say that the electricity market is strongly concentrated and offers opportunities for abuse of market dominance.

1.3. Energy market corruption – some observations

In international literature, not many studies have been written about the corruption that can be found in the energy sector. In the subsection we briefly summarise the lessons of the empirical models.

Dal Bó and Rossi studied the Latin-American electrical electricity market regarding corruption and efficiency. According to their theory, in a corrupt regulatory environment a company's management has two choices: it can manage its own company to be able to produce at a lower price, and in this way achieve a higher profit margin, or it can bribe the regulatory authority and raise their profits through higher prices. In a corrupt regulatory environment a company is better off bribing the authorities, than dealing with its own efficiency. As, apart from running the company, the management devotes resources to bribing the authorities and having the official price raised, companies working in a corrupt environment are less efficient than those working in a corruption-free one. In other words, what happens is that with the same inputs, a company working in a corrupt country produces less than one operating in a non-corrupt one. Besides this, electricity is sold at a higher price in countries with more corruption. The technical basis for this hypothesis is that, while electricity generation depends heavily on technology, transmission efficiency depends on the management of the workforce. To test the hypothesis, research was carried out into 80 electricity generating companies working in 13 Latin American countries between 1994 and 2001. The number of employees was the dependent variable in the econometric model, which was explained by the corruption found in individual countries and other factors. The corruption variable proved significant in many models' specifications, hypothesis, according to which corruption leads to lower efficiency and through this to higher prices, proved true empirically as well. (Dal Bó & Rossi, 2007.)

Estache, Goicoechea and Trujillo researched into corruption in developing countries, following waves of privatisation. In the developing countries the set up of independent regulatory authorities and the gradual opening of the market was not necessarily accompanied by a reduction in corruption or in the cost of the service. The authors analysed the effect of corruption on the price of electricity services in 153 developing countries between 1990 and 2002. According to their model, the companies were capable of influencing their profit with the extent, the quality and the price of the service. In the test group they analysed the effect of corruption on these three choice variables in different regulatory environments. According to their results corruption reduces the quality of the service and the amount of electricity delivered. They were not able to show the effect of corruption on the consumer prices. Studies of the regulatory environment showed, surprisingly, that those countries where an independent regulatory authority is set up and the market in services is opened experience a greater loss of quality and quantity than those where the electricity market is not open. Furthermore, in those developing countries where they have either only opened the market or only created one regulatory authority, the



consumers have encountered more favourable prices, quality or accessibility than in those countries where both reforms had been undertaken. (Estache, Goicoechea, & Trujillo, 2009)

Guasch and Straub analysed the concession contracts that can be found in haulage and water management regulations in Latin America. According to their results, in liberalised industries the renegotiation of the concession contracts between government and industry increases with the size of corruption. Furthermore, with a high level of corruption, the industry is more likely to initiate negotiations than the government however. This means that corruption results in unfavourable contracts (initiated by industry) for the consumers. (Guasch & Straub, 2009.)

Van Koten and Ortmann analysed the progress of privatisation in the European Union member states from the perspective of corruption. The existence of corruption in the industry is well illustrated by the scandal that broke out in Holland in 2006: the four largest Dutch suppliers offered 1.7 billion Euros to an independent consultancy company, should it manage to lobby the government for a more relaxed partition. (van Koten & Ortmann, 2008. p. 3131.) The EU directives allow the member states two types of regulatory forms: legal partition(the existing vertically integrated company should found a company as an independent legal entities, which should handle the grid) and the ownership partition(the network and the production are not allowed to be in the hands of the same group of owners). The authors found that a more relaxed legal partition was preferred amongst the EU-15 countries with a higher level of corruption. In other words, in the corrupt countries a less rigorous division was achieved due to industry's influence. Surprisingly, the opposite is true for those member states joining the EU in 2004: those countries with the higher rate of corruption brought in the toughest regulation. The reason for this may be that at the time of expansion the countries waiting to join the EU wanted to send the right signals in order to meet the EU's expectations, to ensure their accession. Following the EU's inspection they again relaxed the restrictions in favour of industry. This trend can be seen in the case of four countries.(van Koten & Ortmann, 2008.)

With respect to empirical literature we can say that the phenomenon of corruption (1) increases the price that customers pay for electricity; (2) hinders the liberalisation of the market; (3) results in less efficient distribution of electricity; (4) reduces the quantity and quality of the service.

[Governmental failures, such as rent-seeking behaviour and the origin of corruption and as a phenomenon occurring independently of these].



2. REGULATION, INTEREST GROUPS AND ELECTRICITY MARKET "LIBERALIZATION"

2.1. Introduction

The Hungarian electricity market, regulated until the end of 2002, first opened for so-called "authorised" large consumers - those consuming over 6,5 gWh/year - in January 2003. From July 2004 all enterprises and non-residential consumers could join the group, previously comprising of around 200 companies, irrespective of their yearly energy consumption. The revision of Act CX of 2001 on electricity and the enabling of the legislative environment for a total model change was completed by the Act LXXXVI of year 2007. This resulted in the total opening of the market from January 2008, which now enables residential consumers to enter the free market. However, the dual nature of the market is still there, since the fixed price public utility market exists too.

We analyse the history of the opening of the Hungarian electricity market from a special perspective, using socio-economic methodology – involving new sources and a different approach compared with previous research⁶. Since the process of opening the market for the grid electricity industry required a total reform of the previous regulatory framework⁷, in the present study we seek to find out which elements of the institutional conditions strengthened or weakened the initial steps towards opening of the Hungarian market, and to what extent these institutional conditions and the process of the regulation of the energy market prevented or helped rent-seeking and corruption appear in the market. The first round of documents used in the course of the analysis was provided by the press analysis⁸ carried out in the topic of market opening, collecting and analyzing parliamentary documents – draft bills, amendments, committee minutes – and interviews with professionals⁹. We will refer to the statements in the professional literature of the field, but we definitely do not want to make judgement on controversial questions. Our framework of analysis rather reflects a new question raised, and as such, should be read as an attempt at interpreting the issue from a different perspective.

First, we map out the arguments for the liberalization of the electricity market. Then we examine the actual practice of regulation; the role of institutional and economic actors in the arbitration process. After that we show the possible pitfalls of state decision making by documenting particular cases.

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⁷ Valentiny P. 236.

⁶ We have to add that we cannot and will not attempt to explore and reconstruct the story of the electricity market liberalization in this study. This story goes back to the early 1990s, and it would require the study and analysis of documents yet to be made public and making personal contacts with many actors of the professional and political debate on electricity market regulation. This work is a future task for economic historians of Hungary.

⁸ We searched for the key words "liberalization*", "electricity*", "electricity market*" and market opening* in online archives. Taking the peculiarities of the archives into account, the search can be said to be complete in the cases of FN (11 articles), VG (54), HVG (9), MNO (76) and the Index (14). We skipped searching the Népszabadság archives because of its slowness, and only saved texts (5 articles) referred to in other articles. We can generally state that most online search facilities do not communicate the exact working mechanism of the search engine, the time scale of the searchable articles. The earliest article found was from the Világgazdaság from October 2000. We complemented our search results with thematic articles of the Magyar Narancs (8 articles).

⁹ We made ten interviews with expert actors in the energy sector and documented the story of five company leaders' attempts to step onto the market. We always refer to the interviewees with pseudonyms.



2.2. Characteristics of the Hungarian regulation

"Liberalization is a global tendency, the world is moving forward, we merely adapt to its prescriptions." János Kiss

"This is the market only of the priviliged." Júlia Papp

"Liberalization here has not brought the freedom of choice for the consumer but the freedom of pricing for the monopolist." Ferenc Takács

In the following we embark on a deeper understanding of the opinions heard from experts and aim to find the cause of overwhelmingly negative views. We show what background, assumed or real arguments and what effects the introduced measures had.

Political communication has been able to grasp and convey the necessity of the opening of the energy market in three main topics. The advantages of the theoretical concept of liberalization – competition, deregulation, flexibility, transparency, efficiency – were uttered as political slogans in the particular statements. The next argument was that the Act LXXXVI of 2007 is in harmony with the acquis communautaire. This created the illusion of "being on the right track" too. Lastly, the need to satisfy the energy demand of households without any disturbance was put forward as the primary goal. These three dimensions basically defined and provided the legitimacy for the political measures taken in favour of the opening of the electricity and gas markets.

Most of the criticism of the three crucial points used to legitimise the introduction of the measures came from the perspective of practical realisation.

"There is no real intention to open the market even today. The wave of market opening in the 2000s only came about due to EU pressure." Ferenc Takács

International pressure appears in a clearly negative context here, but the resentment is mostly about the lack of political will locally. The voter-friendly political message of keeping prices low also appears in a different light from the perspective of another expert of ours:

"Political will never went further than how residential energy prices can be kept low in a way that can be communicated well. All state intervention revolved around energy prices." István Balogh

The Bangeman-report¹¹, accepted in 1994, is usually quoted as the information society's own. However, this document also contained the demand for fast-paced liberalization, regulated by state-created schedules and deadlines in the markets of network structured branches of industry – like electricity -, pointing out that their non-market operation results in a significant loss of efficiency.

Apart from there being – with hindsight - sharp differences between the judgement of market-opening, it has to be noted that no voices questioned the necessity of the measures regarding the concept. This is quite rare in the case of a package of political measures.

Generally speaking, we can say that market-opening efforts did not cause heated public debates in the political sphere, maybe because there was a consensus on the basics.

¹⁰ The 96/92 Directive of the EU was referred to most often. Unified regulation of the domestic electricity market.

¹¹ See: http://www.euvonal.hu/index.php?op=kerdesvalasz_reszletes&kerdes_valasz_id=1295



We are going to be able to make out the logic of the arguments for the introduction and the practice of regulation from the following analysis of articles published in the press, but it is quite obvious that the whole political elite basically accepted the legitimacy of market opening efforts.

Actors, institutional environment, the arguments of "liberalization"

We collected a total of 177 articles from the press between October 2000 and September 2009, along the conditions described in the introduction. We embarked on the analysis of the public discourse on the opening of the electricity market based on these, supplemented with the minutes of the debates in the economic committee. We emphasize that we are not providing a professional assessment of liberalization, we merely set out to assess the public discourse about it¹².

We can generally state that the articles about opening the market seldom communicate opinions; most of them only report the decisions made.

We will try to collect the actors of the arbitration, the arguments of those who spoke and the issues that were raised during the process. We deal with the assessment of the situation of the market and the question of prices in the next chapter, which summarizes the impacts.

The Ministry of Economics introduced an early package of its proposals to open the market to the press in October 2000, after having discussed the questions with the whole sector in a reconciliation forum. The government communication made clear it supported the necessity of creating a transparent market model, increasing the share of renewable energy production, strengthening consumer protection and strengthening the Hungarian Energy Office (MEH). Other major messages were the principles of graduality and energy security and the measures full compliance with the norms of the European Union.

So, the Ministry of Economics appeared as the one professionally responsible for the market change, and the government as its political supporter. The opposition parties' and politicians' individual opinions seldom appeared – especially in the initial phase of opening the market. The inclination of opposition politicians to make statements only appeared much later, in connection with the rise in prices in the first half of 2008. Apart from political actors, the market actors of the sector also expressed opinions on the planned changes: the Hungarian Electricity Company (MVM) on the one hand – which supported a quick and effective opening of the market and, as can be seen from the articles, did not object to its possible loss of monopoly¹⁶ -, and electricity providers on the other.

From industry and civil organizations only the Forum of Industrial Energy Consumers and the Association of Hungarian Electricity Providers made their voices heard in the initial period.

Regarding the bill on electricity which came before Parliament in 200l, besides the schedule¹⁷ and the publication of the legislation, the costs to the state and the electricity price of exiting companies received a great deal of press publicity, as well as the preparedness of those companies taking part in the partial market opening in 2003.

The Ministry of Economic's experts predicted¹⁸ the opening of the market between 2003 and 2010,

¹² The partial market opening of 2002 was preceded by many rounds of professional preparation work, in which the Ministry of Finance, the Competition Authority, the MEH and also industry actors took part – as well as market actors. This work – according to an expert we asked – started as early as 1997 and by Spring 1998 a concept "based on a consensus in the profession" was drafted on the conditions of market opening, which however, after being "swept from the table" by politics, did not end up in state arbitration but in the archives of the MVM. Although this thread of the story is very interesting, unfortunately we cannot deal with it within the scope of this study.

¹³ Competition is in the interest of electricity providers. Magyar Nemzet Online, 14 October 2000.

¹⁴ Market opening in the energy sector. Magyar Nemzet Online, 17 October 2001.

¹⁵ The electricity market will be market priced in 2010. Népszabadság Online, 06 August 2001..

MVM urges a swift opening of the market. Világgazdaság, 29 March 2001.
Introduction on an industry forum: The draft bill on electricity and the plan of the market model is ready. Magyar Nemzet Online, 26 May 2001. (Submission: 21st of September 2001.; voting: 18th of December 2001.; announcement in Magyar Közlöny: 24th of December 2001.

¹⁸ Adding that both the 2003 date of the partial, and the 2008 date of complete opening of the market is a result of delay.



and estimated the cost of transition to be 39 billion HUF at that time¹⁹. The ministry predicted a further 15% drop in electricity prices for those entering the free market in the first period. This was on the condition that following the initial drop, due to the anticipated rise in the price of fuel, the large consumers on the free market would also see a rise in their prices.

The preparation of the large consumers for the opening of the electricity market put a number of important questions on the agenda. It turned out that the reliability of the service provider is at least as important for the companies²⁰ as the price, and what other costs will raise the price of electricity – the then unknown transmission or systems operation costs, or even the costs of changing service providers – and to what extent. Based on the articles, the attitude of the large consumers can be summed up by saying that in 2001 there was great anticipation of the planned partial opening of the market in 2003, and according to the reports, many were having preliminary talks with possible foreign suppliers. According to a questionnaire survey²¹ of Sonda Ipsos published in the month preceding the opening, most of the large consumers did not have a ready strategy for the new situation, they were rather hesitant – they were waiting for the first results of the partial opening of the market

Electricity service providers also had to change their business strategy due to the opening of the market. A number of articles reported that electricity providers were trying to bind large consumers to themselves with more flexible and unique offers²², better adapting to their needs. Organizational changes took place in a number of cases. According to the companies' communication²³, all the reformed customer services were aiming at a more flexible approach to customers.

Act CX (Electricity Act), passed on 18th of December, 2001, became the basic document of market opening. Its implementation decrees were ready in the following year. Special attention was paid to the regulation of the transition costs and to long term contracts as a factor influencing the price of electricity. 4 government decrees, 17 ministerial decrees and three service regulations contained the legislation needed for implementing the market opening in January 2003.²⁴ The delay in the creation of the decrees is well illustrated by the fact that even the companies authorized to enter the free market only got to know the transmission, grid use and systems operation fees at the last moment. ²⁵

It may be due to this that in the first six months of 2003 only 51 authorized consumers changed service provider. This meant an opening of 18% of the market.²⁶ During the partial opening of the market the largest industrial consumers and municipalities (with respect to public lighting) were authorized to satisfy their electricity needs from the free market, covering a maximum of 50% of their stocks from import.

The most important impact attributed to the step in 2003 is that the press labelled liberalization as "held back", "braked", as not all the authorized large consumers rushed to the free market, and the number of cases backing out was also significant. A report published by experts showed that those entering the market early could achieve a decrease in costs. Analysts explained the shortfall in the expected development of competition with low supply²⁷ on the free market.

By the first half of 2004 it became clear that the Electricity Act has to be modified, updated for the full opening of the market, firstly because in many instances it no longer complied with those energy policy

Electricity market opening only in 2003. Világgazdaság, 25th of March 2001.

¹⁹ The unreleased expert document mentioned earlier from 1998 was the first to mention the estimated 39 billion HUF of the transition. (Information from one of the experts in the consultation process.)

²⁰ Large consumers support the opening of the market. Világgazdaság, 06 December 2002.

²¹ Large consumers support the opening of the market. Világgazdaság, 06 December 2002.

²² Competition in the electricity market has started. Világgazdaság, 13 August, 2001.

²³ Competition in the electricity market has started. Világgazdaság, 13 August, 2001.

²⁴ Electricity decrees in front of the cabinet. Népszabadság Online, 23rd of August, 2002.

²⁵ Electricity market opening: much ado about nothing? Népszabadság Online, 6th of January, 2003.

The market is waiting for a new capacity auction. Világgazdaság, 8th of September, 2003.
The market is waiting for a new capacity auction. Világgazdaság, 8th of September, 2003.; A levelling of public utility and market prices is anticipated. Világgazdaság, 30th of April, 2003.



directives of the EU coming that had come into effect earlier, on 1 January.²⁸ During the same year, the electricity market opened for consumers using less than 6,5 gWh (small and medium companies, hospitals, theatres, museums, council institutions).²⁹

The Parliament accepted significant amendments to the Electricity Act in the summer of 2005, but since these moves did not affect the essence of the market model in effect, the press didn't pay much attention.

Only the issues of long term contracts³⁰ – and thus the price of electricity and the relevant legislative amendment³¹ – remained on the agenda, and there were some reports of the MAVIR being reintegrated under the MVM.³² After this, in 2006 the Hungarian Competition Authority published its analysis of the electricity sector (Hungarian Competition Authority, 2006.), one of the most important statements of which is that a change of market model is essential for competition to take place:³³

"26. The price advantage experienced by authorized consumers who entered the competitive market in the first year quickly vanished, as this was based on cheaper imports and not a share of the result of the domestic increase in efficiency. Due to the scarcity of supply, the access price of the limited import capacity naturally rose quickly with the increase in border crossing capacity fees, and eroded the price advantage. This was the main reason for the instances of return to the public utility market in the first months of 2004.

(...)

Due to its nature, utilising the capacities of cross-border areas cannot be regarded as a clearly Hungarian internal affair, so the optimal, competition-oriented utilisation of these capacities also relies on thinking on a regional scale, together with surrounding countries, or at least on harmonised regulation and strategic decision-making. In the case of the cross-border area with Slovakia for example, the two companies owning the capacities of the two countries see themselves as disposing of 50-50% of the capacities separately. Thus the import capacity, immediately relevant to the Hungarian opening of the market, regulated by Hungarian authorities and, in theory, allocated transparently according to Hungarian rules is at once halved in this direction. Import electricity may arrive in Hungary on the other 50% of the capacity, but this no longer happens in a way transparent to Hungarian authorities and market actors. However, the overall capacities could be utilised together (through jointly organised auctions, for example), which would assure a transparency much higher than the present one. This, of course, is only viable through the cooperation of the two countries. This effect could be further improved by coordinated regional auctions." (Competition Authority, 2006.)

Energy market experts also urged a change of the model:

"The lack of competition between power plants, distorted import competition and the inconsistent consumer end price liberalization altogether lead to unnecessarily and unreasonably high free market electricity prices at home. Although there is no transparent electricity market, thus a reliable free market price level in Hungary, information from traders suggest that as a result of all this, this March the free market price of electricity in Hungary will be one of the most expensive in Europe.

²⁸ There needs to be a new Electricity Act. Világgazdaság, 27th of May, 2004.

²⁹ More liberalization in the electricity market. Magyar Nemzet Online, 30th of June 2004.

³⁰ Allegorically. Figyelő Net, 1st of December, 2005; A new energy policy is needed. Magyar Nemzet Online, 3rd of December, 2005

³¹ Official price at the electricity producers. Világgazdaság, 8th of February, 2006.

³² Changes in the energy industry I. - Integrated independence. Magyar Narancs, 2nd of February 2006.; Mavir Ltd. In a new role. Világgazdaság, 28th of February, 2006.

³³ The market model has to be changed, according to the competition authority. FigyelőNet, 22nd of December, 2005.



(...)

If the complete opening of the market takes place with a lengthy and awkward (that is costly) service provider changing regime, it will discredit the whole process of opening the market. The accounting, technical and other still missing conditions needed for changing provider need to be in place before the market opening is completed." (Kaderják, 2007)

The amendment to the Electricity Act in 2001 set the basic schedule of opening the market. The EU's favourable standpoint towards liberalization was also a major force when the government finally embarked on a total market opening in 2007. Seeing the electricity price rise on more than one instance in 2006, when communicating the amendments and related legislation passed to the Electricity Act in June 2007³⁴, they made a point of not promising a decrease in prices for the following year. The press received little information about the arbitration talks before the Electricity Act or about the impact studies - if there were any -, but guesses on the electricity price for the following year were covered extensively.

"The real disgrace is that the impact study is mandatory in the EU, but is generally not carried out in Hungary. The philosophy is that «It costs money, let's save on it.»." István Kovács

From September, all the newspapers – without exception - had articles about "brutal", "significant" price rises and electricity shortages,³⁵ while the Ministry of Economics was trying to ease the panic with the promise of compensation and refuting talk of electricity shortages.³⁶ Expert estimates published in the press predicted a 40–50% price rise for industrial electricity,³⁷ while the estimates for price rises in residential use were 5–10%.³⁸ As a result of this, seven of the country's large energy consumers approached the Ministry of Economics in a joint action, asking for state support against rocketing electricity prices³⁹ - in vain. In the meantime, the first MVM auction took place on 25 October, 2007, supervised by the Competition Authority and the Energy Office,⁴⁰ followed by negative criticism⁴¹ on a number of forums.

In the two weeks before the complete opening of the market the press carried the news that the Ministry of Economics would re-negotiate the implementation decrees⁴² of the amendments to the Electricity Act. The regulation on user fees – similar to the situation in 2003 – was yet again not announced by the given deadline. The significance of the scope of compulsory feed-in tariff (KÁT-circle) appeared in the press as a separate issue at this time. The state secretary of the Ministry of Economics and Transport considered the modification of the Electricity Act passed in 2007 as a "compromise" agreement.⁴³

In the articles reviewed, there was no mention of those authorized to enter the free market receiving any information. The changes affecting residents were first summarised by a HVG article published on 4^{th} of January, 2008.

³⁴ Opening market will not make electricity cheaper. FigyelőNet, 11th of July, 2007.

³⁵ Electricity may become significantly more expensive. Magyar Nemzet Online, 13th of September, 2007.; There may be a brutal rise in the price of electricity. Index, 20th of September, 2007.

There will still be enough electricity after opening the market. Világgazdaság, 24th of September, 2007.

³⁷ Industrial electricity may see price rise of 50% from January. Magyar Nemzet Online, 1st of October, 2007.

³⁸ Price of electricity going up from January. Index, 9 October, 2007.

³⁹ Large consumers would decrease the price of electricity. FigyelőNet, 15th of October, 2007.; Industrial large consumers want electricity price decrease. HVG, 15th of October, 2007.

⁴⁰ Electricity to be auctioned. Magyar Nemzet Online, 25th of October, 2007.

⁴¹ The consequences of liberalization. Magyar Nemzet Online, 19th of November, 2007.

⁴² Procrastination on electricity market. Magyar Nemzet Online, 14th of December, 2007.

⁴³ Price of electricity going up: 9-10% rise next year. Magyar Nemzet Online, 21st of December 2007.



In the first months of 2008, the media surrounding the energy market was characterised by the polemic around the spectacular rise in the electricity price. This culminated around the sacking of István Kocsis, CEO of MVM (11th of March, 2008), when the Prime Minister, Gyurcsány Ferenc removed him from his position. This decision might also have been influenced by the critical comments of three studies assessing the opening of the electricity market (amongst them the sectoral analysis of the COMPETITION AUTHORITY and a REKK-study).⁴⁴

The Competition Authority's standpoint on market opening is well reflected by an excerpt from this study:

"The legal environment should not be ignored when looking at the background to the price rise. The creation of the Electricity Act did not result in the question of long term contracts being settled, this is planned in a separate act, but the creation of that is running late till now. (In the meantime the MVM re-negotiated some long term contracts with the producers as a result of the European Committee process of examining state subsidies. However, this only affected the question of state subsidies. the anti-trust sphere of problem was still there: 75-80% of domestic production capacity is still concentrated in one hand.) Paragraph 106. of the Electricity Act states that producers and traders holding long term contracts should choose to auction their available capacities before any other means of selling it. According to the legal interpretation of the Competition Authority, paragraph 106. of the new Electricity Act assures that after the complete termination of long term contracts, the actors on the demand side should have access to both domestic and import capacities free of discrimination and in a way that enhances competition. This is the section which, in effect, creates the foundations for market competition for the period following the long term contracts by prioritizing one form of sale. According to the interpretation of the Competition Authority, there is no competition where an incumbent monopolist "secures" sources for the actors on the demand side by inserting a market tool (106.§).

In a situation where there is excess demand, the auction by one sole offer with free conditions is an economic nonsense, it cannot even be considered a fig leaf on the operation of a free market. If the market structure does not change, curtailing monopolistic pricing will only be possible by regulatory or owner intervention".

(Competition Authority, 2008a: 9-10)

Legislation was modified in September, which resulted in expanding the scope of those entitled to universal service, and public institutions and organisations with public service activities were also included. Thus they took under the metaphorical wing of the politically fixed price those questionable consumers, leading to the number of those entitled to universal service to jump back to near 50%.

The first article covering the conditions and experiences of small businesses entering the free market did not surface until 2009. 45

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⁴⁴ See: http://www.kormanyszovivo.hu/page/mvm_hatter?lang=hu

⁴⁵ With careful choice small businesses can also profit from the free electricity market. Világgazdaság, 3rd of May, 2009.



Looking at the difficulties of entering the free market from a company point of view

It is a general characteristic of the electricity market that almost all consumers need to get electricity tailored to their individual needs – depending on the time and scale of consumption.

Moreover, capacities have to be contracted in advance, so that the service provider can count on future demands. If the actual consumption is higher, invoicing of electricity may be triple or quadruple. Thus, from the point of view of those entering the free market – contrary to the general assessments seen by analyzing the newspaper articles – the opening of the market was a much more practical procedure. The positive or negative judgement of the actual effects of liberalization mostly depended on tiny details.

It can be seen from the articles and the interviews that the early birds entering the free market in 2003 drew courage mostly from their personal connections. In one story we got to know for example, the owner had an acquaintance at a German supplier. A number of examples supported that these large companies experienced the price decreasing tendencies of entering the free market at the beginning of 2008, even though the scarcity of cross-border capacities significantly raised prices for them. Moreover, the regulation of these – as it turns out from the press analysis – was late and companies were not left with enough time to get to know the consequences of obeying the legislation. The initial 50% limit on imports also clashed with many companies' interests.

It was characteristic of the group of large consumers waiting tactically on the sidelines that, emphasizing the security of service, they decided whether to enter competition based on their competitors' experience of the free market. However, they also unanimously moved towards rationalising their energy use. It seems that liberalization had the less publicised but measurable effect of companies taking steps towards more efficient energy use. It was generally characteristic of large consumers to regard the proceedings of the electricity and the gas markets as one, and express their opinions on both. Those questioned judged the latter to be more successful.

Expanding the scope brought changes to the practice of entering the market too. Its success depended more and more on technical details instead of personal connections, as businesses' time was largely taken up by organizing the change of service providers. Many different practices evolved to deal with this. There were those who were approached by a competing service provider, and there were those who sacrificed their own working hours to look for opportunities – largely by using the Internet –, and there were those who contracted agencies to find the most advantageous offer for them and to help make the contract. There were some who out-sourced the whole administration of electricity to a different company.

"These companies provide a continuous service and do extremely well out of it. They are usually contracted for the tasks in a package, you can buy the complete sewage, water and gas service from them. One example of this is the outsourcing of such costs by one of the biggest banks in Hungary. Of course, you can say at least there's no work to do with it, but these contracts mean something different. Nobody's stupid for free." János Kiss

Most interested companies usually got to the point of at least asking for a quote. Paperwork for this is time consuming, since the new service providers need data to hand in an appropriate quote. The consumer needs to gather data from the previous service provider, which it gave reluctantly according to the interviews, although legislation made it compulsory.

An important detail is that changing service providers can be done only once a year, the time of which is usually the turn of the calendar year, but we had an interviewee who got the documents for contract renewal in August. Many of those asked said that in the first round they were late for changing service



providers because they did not even hear about the possibility of entering the free market, and did not have time to get informed about it. And when they got an offer, in many cases it was less advantageous than the existing one – both with regard to price and the quality of the available services.

If we look at it from the viewpoint of the other side, service providers also had to develop new strategies in the free market environment. The previous service provider of one of our interviewees made a "unique service contract" with them and successfully keeps the consumer with them til the present day with individually tailored discounts. Already signed contracts are characteristically impossible to break; we had an interviewee who wanted to take the issue of ceasing the contract to court, but gave up in the end. Parallel with opening the market, the emphasis on communication with the consumers and the quality of service increased. Service providers who also owned the grid generally had an advantage; consumers also had more trust in service providers running a local customer service, they saw this as a guarantee of security of supply, and should there be a system failure, a quick resolution of the problem as the local information would not get lost in the system. It seems that the interest of service providers in getting and keeping consumers is in direct correlation

It seems that the interest of service providers in getting and keeping consumers is in direct correlation with the size of the company wishing to enter the free market. The bigger the company in question, the more probable that it will receive an individual offer, fitting the company's energy consumption.

"We pay 100 000, a big company pays 1 million. Now that is five people's salary, The big ones change, because it is worth it for them. But the service providers really deal it out among themselves anyway. One year the electricity is cheaper here, the next year there. We could change every year, but in the end we would lose on the paperwork and the administration, and wouldn't be any better off." Tibor Mészáros

It could be observed that the smaller the company is, there is less willingness to change and less inclination to carry out the bureaucratic preparations preceding the change. According to the head of one company:

"even the service provider giving the better quote could only reduce the costs by 2-3000 HUF, which does not even make it worth opening my browser to look at the terms and conditions." Tibor Mészáros

On a residential level the above difference is even smaller, so it is no surprise that the population virtually does not know about the opportunity to change service providers. One of our experts considers this the result of the lack of information, the intentionally insufficient communication:

"Everything is exactly as it has always been. They made sure you stay stupid." Ferenc Takács

We estimated the time costs of dealing with red tape with a business owner:

"If I wanted to illustrate it in working hours, I would say that the burden of browsing, administration and phoning consumed one person's whole working week. Moreover, we did not even get a worthwhile offer in the end." Tamás Pintér

Whether changing service providers succeeded or not, the consumer has to face the rigidity of the today's system. Individual schedules are treated with some flexibility in the case of large companies – one of the large companies in the processing industry handed in 16 schedules in September 2009 due to the unpredictable production pattern due to the crisis, one every two days on average. But more



often the consumers submit their planned consumption for a year ahead and contract it. If the actual consumption is bigger than that than they will pay three or four times the price, depending on the service provider, for the "plus" consumed capacity. We had interviewees who were still better off than they would have been by contracting, but others lost hundreds of thousands of Forints this way. The biggest problems arose where the schedule had to be submitted for a year ahead, and the service provider did not have the flexibility to accept 3 or 6 months schedules too. Apart from this, many blamed "green energy" too, since the recent sum of the compulsory feed-in tariff system makes the preliminary estimate of fees really difficult. One of the interviewees told us that the sum of the compulsory feed-in tariff can only be known at the end of the year, so he has to tell a price to his tenants that has a cost component which even he does not know. It was also revealed by the interviews that those who were asked thought that the compulsory feed-in tariff system only caters for those producing renewable energy. They blamed renewables for the chaotic regulation of the compulsory feed-in tariff system. One of the interviewees (a leader of a big industrial processing business dealing with the company's energy purchasing) "created" an electricity bill of almost 100 million for his company solely by having to pay the green energy part of the anticipated energy consumption - estimated and scheduled before the crisis - and the energy bought at the previous year's auction - while production and energy consumption was far lower because of the economic slump. The leader of the company corresponded with the ministry in vain. They only got the polite answer that a rule is a rule, they cannot make exceptions.

Regardless of whether a company ended up on the free market, the switch to more sensible electricity consumption was in most cases driven by liberalization. Almost all interviewees said that they optimized their schedules; if it was suitable, they rather produced when they could purchase cheaper electricity.

However, we mostly heard negative opinions about market liberalization during the interviews. We think that this is mostly because of the attempts to quit that failed due to bureaucratic obstacles and because of the rigid behaviour of service providers:

"liberalization brought nothing new for us except that when they did it, electricity prices rose by 93%. Before liberalization everything was alright, administration was more flexible. The free market does not exist for us. For one or two large consumers maybe, but not for us." Tamás Pintér

However, there were examples where regardless of the negative experiences they looked for new opportunities for action. There are sectors where companies decided to build a common strategy and take joint action towards service providers in hope of cheaper electricity.

The opening towards smaller clients appeared in the communication of service providers in 2009, and there was also a switch from the question of prices: more and more emphasis is on the quality of service. So now they are rather trying to widen the scope of their customers with a more precise service, better client management and better payment conditions.

It can be clearly seen that the fancy theoretical theses and consequences of opening the market seem to go unrecognized in the practice of service providers and customers. Moreover, the success of changing to a free market was down to particular questions of regulation, apart from the price and reliability aspects discovered during the media analysis. Furthermore, since opinions were largely defined by the interactions between service providers and clients and the experiences gathered in due course, regulation can be regarded as the main cause of disillusionment of consumers with liberalization – this also makes clear that a deeper analysis of the regulatory process is now essential.



"They raise (the price of) electricity, gas, petrol in a way that that you cannot even follow. I don't have the energy for this, who will look after the company then?" Tibor Mészáros

Regulatory preparation for opening of the electricity market

The following short introduction to the acts on electricity is needed in order to examine the practice of regulation. The quality of the laws and regulations passed during the legislatory process could be explained by the institutional-regulatory environment in which they were passed. Thus we can further the theory of state capture mentioned in the introduction. The legal regulation of the course of state arbitration can be found in Act XI on Legislation of 1987. According to this, the first draft of an act – for which presently only the relevant ministry is responsible – should be disseminated in an appropriate format for social and administrative consultation. Some are of the opinion that social consultation should only take place after the administrative arbitration but, according to an interviewee, both viewpoints had supporters in the legislature from 2006 to 2010.

The stages of administrative arbitration are noted on the first page of the draft: the participating partners are documented here — standard actors are for example the Ministry of Justice (IM), the Ministry of Finance (PM) and the Prime Minister's Office (MEH). Administrative arbitration usually consists of 3–5 stages but this is subject to wide changes, it is not regulated. Minutes are taken of the meetings and at the and it is noted whether any undebated questions remained. The government can only submit drafts to the parliament that are passed in this way.

The opinions of professional organisations and market actors are channelled in through the different forums of the above described state arbitration procedure.

We asked our interviewees – who included all the system's stakeholders – how they see this consultation process.

It turned out that the Hungarian Energy Office's reach (MEH), which is responsible for the professional preparation of legislation related to electricity production and distribution, mainly goes as far as the gate of the administrative consultation. After the relevant ministry gets the professional material prepared be the MEH, the role of the professional team practically ceases. Although one of our interviewees was invited to a parliamentary committee debate, there they asked him not to come again so unprepared. They did not even invite him next time.

Over the past couple of years energy office experts have frequently felt that, in Hungary "the only policies that exist are those subservient to lobby interests, which over-ride the MEH's recommendations". István Balogh

One of our interviewees knows about a number of professional consultations where only the Minister of the PM's Office, the then director of the energy office and the cabinet leader of the MEH were present. According to the interviewee, these discussions are exclusive. As many experts have expressed similar opinions, it can be assumed that the decisions concerning the electricity market were not always made in a transparent way.

The legislator and the rent-seeker

The newspaper articles analysed reported that during the preparation of both the 2001 and 2007 laws, the Ministry consulted on the details with market actors on professional forums. So, apart from the experts, market actors could also actively follow the state arbitration process. Hence we cannot



assume that a market actor involved in the consultation process would not pursue their own interest. We point out two important characteristics of these consultations: a) the talks between government and market actors take place in an informal framework, through personal connections, background meetings, usually without publicity; b) the documents, background studies and discussion papers that may be created during the consultation process are not public. The intention of economic actors to influence the regulation process is not unknown to developed western democracies either (Olson, 1965; Tullock, Besley, 2006). The important difference between the practice there and in Hungary lies in the regulated and calculable nature of influence. A negotiation process between government and market actors in a formal and clear framework may be acceptable, especially if the regulator is aware what the intentions of the market actors are distinct from professional concerns: apart from opposing unrealistic regulation they try to reach solutions favouring their own interests.

The Hungarian situation is also characterized by market actors facing a 'weak government': government dopes not usually devote enough time and money to develop alternative solutions, to take international experience into account and is not able to pay for the work of those experts with the appropriate professional knowledge.

It follows from this that market actors pursue their rent-seeking activity virtually unhindered and unregulated. Regarding regulation of the electricity market, rent-seeking is an integral part of the behaviour of the market actors on the one hand and, on the other, the regulators, the government and the legislators also expect this kind of 'help'.

If they do not possess a reliable economic analysis, market simulation of the possible economic effects of particular regulatory options and thus the anticipated reactions of the actors on the demand and supply sides, then the obvious — and second best — option is to put together the details of regulation through a series of consultations with the more significant market actors. In this case it is worth for those preparing the law to have someone else — "who knows the market relations better" — to tell them what the right way to regulate would be. The legislator can in this way ask for "compensation" from the market actors in turn for passing th regulation. This is how rent-seeking, which is already integral to participants' expectations, is closely related to corruption risks.

The experts we asked described the situation with almost exactly the same phrases, independently of each other – this knowledge of theirs is common knowledge:⁴⁶

"A good example for this is the scene that took place at the modification of the Electricity Act, when a government and an opposition MP submitted two amendments with the exact same wording, according to the will of the then leader of Q Ltd." Ferenc Takács

This is not a unique practice and is complemented by the fact that legislators – short of their own professional apparatus – work from materials available:

"...the experts' documents are in parliamentary offices, which they grab and take to their offices." István Kovács

"From now on the battle is two- fronted. On the one hand the lobby forces launch into action – the large gas and electricity providers allegedly have a contact list of the important actors in state administration, with descriptions. They turn towards their

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⁴⁶ Common knowledge, but without the actors speaking publicly about it. So they sometimes do not even know that another actor thinks the same way or similarly. We think that a realisation of the latter would be a starting point for changing the initial situation, that is to be able to decrease rent-seeking and the influence of lobbies on electricity market regulation. On the differences between common collective conscience see Csontos, 1999. pp.19–22.



chosen person with invitations, with a little attention and start to inquire with questions like "how is the draft bill?" Apart from this, they also have to fight the "bureaucratic know-alls" in the state administration when new legislation is made, who are usually dangerously rigid bureaucrats, upon whom common sense has no effect. These two interest groups enter combat in the process of preparing a law. Inter-ministerial consultations have a formal schedule, but practice is dominated by informal elements, where participants keep trying to persuade each other of their own truth. These meetings usually culminate around the Ministry of Justice. Practice shows that lobbyists can intervene in the legislatory process really well.

Politics is bought by the kilo. Those who cannot be bought will be fired. Small country, weak government, strong multinationals characterise Hungary today. This is the fight between the elephant and the mouse and we can say that the mouse is ******* right, but it does not make much sense due to the power imbalance.

(...)

The process of preparing laws, is that market actors write the law.

(...)

Preparation of the law usually goes like this; the draft proposal appears at the ministry and at the same time the representatives of the market actors appear there too, who take professional documents to the desk of the politician with the appearance of working under his hand. Professional consultations also start, where the actors of the economic sphere make different observations regarding the law in preparation." Júlia Papp

"All pencils are held by the Q Ltd.: the ministers', the Energy Office's, the ones of those sitting in parliamentary committees." Ferenc Takács

"The initial process of scripting legislation took place on the government side, but lobbies formed for its reform and modification (e.g. that of X or Y). The initial document was then given round and put under fire by sectoral arbitration. The end product of regulation was a kind of a compromise, but the central role of Q Ltd. remained." Katalin Varga

"Apart from political interests, economic interests also play a role in legislature. Q. Ltd. has the biggest voice in the regulation of pricing, but there are cases related to particular service providers too (e.g. Z Plc.)." István Balogh

"When modification were made to the act, Q. Ltd. commented on the draft and was sitting there at the administrative consultations. We made quite an interesting kind of liberalization." Ildikó Juhász



Nobody took notice in 2006 when parallel to the work of the Hungarian Energy Office (MEH), the ABC Group, contracted by X. Plc., made a 'helpful' proposal about the complete opening of the market as market actors would like it;⁴⁷ this also means that this practice is acceptable for the participants.

"This is regular practice in the industry. The question is how the general expectations of the EU regulation can be met... The ideal case would of course be if the MEH could hire a think tank of the quality of ABC for the analysis. The actors in the industry know how this system works and how it could work better. State administration cannot lay the foundations for this, short of the impact studies." István Kovács

There are contrary opinions too, which acknowledge the cooperation between rent-seeking groups and legislators, but puts it in a positive light:

"It is not good to have decisions made from an ivory tower, the interests of the other sides should be known too. These consultations are always public but it is not wrong to discuss things over in informal meetings. Bosses do not usually say everything in front of their employees, and an informal dinner is also good to get to know how coherent the other party's thinking is. This is an effective way of collecting information. For example, they organised sectoral roundtables from August 2007, where they invited the representatives of the Q Rt., the Competition Authority, the ministry, the power plants and traders too." Ferenc Török

Personal connections and log-rolling

It is both a pre-requisite and a consequence of the dependence of rent-seeking groups and legislators on each other that personal connection are formed between the individual actors, and it is not seldom for them to "swap roles" from time to time:

"They would like to make a law and they send it over here to Y Plc. to be commented on, which is a totally absurd situation. There was a man who worked at one of the electricity service providers and was fired because of corruption issues, he did something wrong. Where do you think he is working now? At the YZ State Office. And now he is being clever on the state side. This is how much things overlap, and this is how revolving doors work for about 1000 people. Everybody knows everybody." Anna Farkas

Acquiring the appropriate expertise in the electricity sector is the result of a long study process which not many achieve. Hence, the flow in and out of the field is limited, so the situation that 'everybody knows everybody' allows the field to build quasi-paternalistic networks based on mutual help and advantages. The system of mutual favours, *log-rolling* works through this.

"In many cases it is not direct corruption, but only cronyism." Ferenc Török

This is also part of rent-seeking as it obviously does not happen transparently. The preparatory documents for draft bills and their debates are not public, as we have seen in the case of the Podolák-Fónagy bill.

⁴⁷ Variations for market opening. Világgazdaság, 13th of December, 2006.



The lack of clear political aims

Many interviewees touched upon electricity being a very sensitive area, because a wrong decision may result in the politician losing a lot of votes, but a decision that favours consumers might not win just as many. Therefore, the best decision might be not to do anything really, or think a thousand times before making any change in the regulations. The lack of political will and clear political aims is best explained by this.

"And let us not forget that the energy sector is an all-time election tool. Whoever dares raise (the price of) electricity, whoever dares to say in the campaign: – Under my reign the price of gas or electricity will increase – has failed. Everybody knows this." Anna Farkas

"There is no clear aim in energy policy today, only the politics obeying the lobby interests which take precedence over the professional proposals of the MEH." István Balogh

"...it was all a question of political will. Act 110 of 2001 showed the way forward in energy policy, but political will never went any further than how residential energy prices can be kept at the same level in a well communicated way. All state intervention revolved around energy prices." István Balogh

"The legislative is paralysed: there are now no experts besides the MPs – while in the EC there are 12 experts for one politician. They are knowingly trying to discredit the legislative with this. The result is that a manager with better abilities will not take state jobs. He thinks that the reform of the whole political establishment would be needed." Júlia Papp

Unpredictable regulation

The preparation and passing of laws often happens in a hurry, which obviously undermines professional considerations and sows the seeds of the coming of government failures. The implementation decrees related to the laws – for which market actors should in theory prepare on time – are often passed at the last minute:

"Lobbyists are generally still busy working in December. There is an implementation decree which is passed at the end of December and comes into effect on 1st of January. Market actors have to live with the uncertainty of the regulation. The reason they don't quit is that they price the risk. It is commonly known that the most profit in the region can be made in Hungary." Ildikó Juhász



Rent-seeking in the different phases of regulation

The risk of corruption increases most at three points of the administrative arbitration because of the anomalies of the legislative procedure.

The first one of these is which legal instruments are used to carry out regulation. The question is how much regulation is done by acts and how much by governmental or ministerial decrees. A thorough analysis of legislation shows that in the 2000s in Hungary the role of decrees is very high in regulating the electricity market (Antal, 2010). Governmental and ministerial decrees provide a simpler, cheaper and last but not least, less transparent regulation than that of acts, and also provide a quicker opportunity for rent-seeking activities of interest groups. Obviously, personal contacts, background deals, working meetings are sufficient to put through a "good", ambitious governmental decree. This is what happened in the case of government decree 313/2007 XI. Passed on the 17th, a Saturday, in which the government decided about the closure of cross-border capacities before the 19th of November auction of the MVM in 2007, rendering import from this direction impossible.⁴⁸

This decision clearly benefited MVM, because it spectacularly decreased the chances of purchasing import stocks to compete with the MVM (which largely owned domestic production). However, the arguments of the MVM to persuade the government had to be totally different.

"...what happened was simply that X went in to the Prime Minister and, relying on the security of supply, convinced him that the Hungarian consumers have to be protected from the cheap electricity being exported to the Balkans, where the heating of apartment blocks is done with electricity and where there was a lack of capacity in 2007 due to the great drought when hydro plants could only operate at low capacity. «This way we can provide cheap electricity to Hungarian consumers, otherwise foreign-owned traders take it away».

(...)

It causes great damage in the long run that you have to calculate with uncertainty, that the government bans cross-border capacities from one day to the other, that it intervenes on an adhoc basis." József Kis

We do not know what happened exactly, maybe we never will.

The Association of Hungarian Electricity Traders (MVKE) immediately wrote an open letter to the Government of the Hungarian Republic, to the Ministry of Economics and Transport, the Hungarian Energy Office (MEH), in which it protested against the closure of the cross-border capacity:

"The organisation of traders of the liberalised Hungarian electricity market, the MVKE was taken aback and deeply worried about the 313/2007 decree of the government which radically limits the possibility of import on the highly important Hungarian-Slovakian cross-border region for the actors of the liberalised market. The content of the decree is contrary not only to the principle of the complete liberalization of the electricity market, but to the government's own decree passed on the same issue on 7 March, 2007, which would have expanded the electricity capacity authorized for commercial auction on the Hungarian-Slovakian border."

The passing of the governmental decree on 17 November, preceding the yearly electricity auction of the MAVIR by just two days(!), is strongly restrictive of the market and indicates hurriedness. The association calls the attention of everyone, especially energy consumers and related organisations (Magyar Energia Hivatal, MAVIR), that

⁴⁸ This decree lost effect on 1st of January, 2008 and the Slovakian-Hungarian cross-border area opened again.



apart from the otherwise worrying shortcomings of the new regulation, the narrowing of the opportunities of electricity import results in the narrowing of the space for the activity of big energy consuming companies and electricity traders and will most probably result in the rise of local free market prices. The beneficiaries of the present situation brought about by the decree are not yet known, but the continually evolving liberalised electricity market and energy consuming Hungarian businesses will obviously lose.

The association looks forward to the recipients' reply and initiates a professional consultation immediately between the GKM, the MEH and the MAVIR. Budapest, 21.11.2007.

The Board of the Association of Hungarian Electricity Traders⁴⁹

The MEH mentioned this decision⁵⁰ in its yearly report to the European Commission, but did not comment on it in any way. However, the Competition Authorityvoiced serious concerns in its 2008 study on the situation of the electricity market:

"Government decree 313/2007. (XI. 17.), referred to earlier, which modified the earlier government decree 37/2007 (III. 7.) in compliance with the decree 1228/2003 of the European Parliament and the European Council, expanded the allocation of the preferential cross border capacity of MVM Trade until 31st of December, 2008. This step also contributed to the decrease of the opportunity for competition in the Hungarian electricity market"

(Competition Authority, 2008a: 10)

Two months later they expressed the same opinion – going into more detail – in their report to the Parliament made in April, 2008:

"558. The Competition Authority finds it especially worrying that the governmental legislative steps following the passing of the law favoured the retaining and possible future expansion of the dominant market position, instead of creating the conditions for more intensive competition. One of the important driving forces of market competition after the partial opening of the market was the possibility of import, which acted as some kind of barrier to the dominance of the MVM. The modification of the regulative decrees concerning cross border traffic of electricity [The piece of legislation was issued as Government Decree 313/2007. (XI. 17.).] constrained, decreased free cross border capacities by the fact that the MVM took the cross border capacity needed to fulfil its contracts of electricity import out of the obligation to sell at the auction, and qualified it as previously bound capacity. The Competition Authority pointed out to the government that the modification not only makes it possible to distort competition (strengthens the dominance of MVM already having excess power, is in conflict with the principle of anti-discrimination, and makes it more difficult for other competitors to enter the market) but may also be in conflict with EU regulation. Firstly, it may violate the EU regulations on state subsidies. Secondly, it may be in conflict with the rules of the community decree84 on grid access applicable in the case of cross border trading in electricity, with regard to which the European Council has already carried out an infringement proceeding against Hungary. The government's wish to protect some consumer groups for some time against the effects of market competition is acceptable to the Competition Authority (although the long term negative effects on the whole market are well known, from the Hungarian natural gas market). However, state protection has to find a form which does not hinder the development of market competition. (Competition Authority, 2008b: 101)

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⁴⁹ See www.mvke.hu/anyagok/szlovaknyilt.doc

See MEH: The annual report of the MEH to the European Commission, 2007. July 2008. page 71. See: http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_PUBLICATIONS/NATIONAL_REPORTS/National%20reporting%202008/NR_nl/E08_NR_Hungary-LL.pdf page 14



Apart from influencing decrees, interest groups have an opportunity to influence legislation in the making in the first phase of the legislative procedure, at the drafting of bills. In this phase the source of corruption risks comes from disregarding the arguments of civil servants and experts, as it provides a significant discretional decision making opportunity for the politician – which is a pre-requisite of corruption. One of our interviewees described the effective threatening process:

"the politician enters, and the civil servant – shaking from fear at the thought of losing their job – will work as instructed by the politician. If somebody does not do it, then they sack him, or if they are really that good, then has to regularly appear for a hearing at the minister's office or in the party offices." Ferenc Török

"... if it is not the head of the office telling civil servants what to do but somebody else, then there really is a big problem" István Kovács

Furthermore, the social consultation of the draft bill and the state arbitration process provides wide space for making contacts, to consult ideas and to exert influence. Although the XYZ Ltd. is pro forma a market actor, it regularly represents itself at the meetings of state arbitration.

The other instance where a rise in corruption risks can be observed is in the phase of legislation just before parliamentary decisions. In this instance it is mostly the amendments put forward by individual MPs that create a possibility of corrupt behaviour. Obviously, the intention behind the rules of the legislative procedure is that the mistakes found during the process of consultations on the bills can be corrected. Still, since we do not know what makes an MP propose an amendment in the Parliamentary phase, when there are no expert policy makers involved, the unusually high number of amendments to the VET increases the suspicion that rent-seeking lobby interests lie behind them, but such situations also increase the risk of corruption. Imagine a black box that holds the reason for proposing an individual amendment. Individual MPs' intentions and rent-seeking interest groups can both be in the background, it is impossible to tell. However, the cases shown in the next chapter and the surprisingly high number of amendments (2001: 164; 2005: 62, repealed: 47; 2007: 202, repealed: 38) leads us to think that it is not only the enthusiasm of MPs that is working in the background. Experts expressed similar thoughts, although with tougher words.

"I can tell by the smell of the amendments which market actor's lobby is behind it." Ágnes Kálmán

Corruption related to the regulation of electricity at the level of the legislative does not work in the usual way of "for money (advantage) I get an immediate service". Due to the limited number of experts familiar with the energy sector, virtually everybody knows everybody else. Personal connections, background deals, mutual help plays a big role. The rotation of actors between market and state administrative positions is significant so it is not surprising that rent-seeking lobbies often succeed during the regulation of the electricity market. Since it is an industry that requires serious technical knowledge, the refuting of the standpoint of amateurs may be really easy with some obscure professional arguments.

"The security of supply is now the biggest argument to camouflage monopolist interests. The strongest weapon of the opponents of wind power was the spreading of the theory of limited take up capacity." Ferenc Takács

As the terrain of corruption changes, researchers also have to change their tools if they embark on an



analysis of the electricity sector and corruption. The processes of exchange, usually characterizing corruption (Szántó-Tóth, 2008), are seldom present here:

"The petty areas of corruption – like agreeing on the winner in the case of public procurement – are not characteristic in the case of electricity. Bigger interests are up against each other here. Those interested in change are fighting those who do not want substantial change but the freedom of their own monopoly." Ferenc Takács

"Incredible sums are at stake in this game; bribes are in the order of a million euros in a deal. There is not enough evidence to file a legal case. If somebody is really stubborn and turns to the police, they will be stopped by the responsible authority itself, who are simply bought by the kilo as well." Júlia Papp

Stories related to energy policy appear in the press thanks to the hard work of some investigative journalists, but they can only aim at analyzing one or two stories or actors. A common experience could be observed through the interviews: interviewees do not see all the threads of a story either, even if some of it happened to them, and they have been active in some position in the electricity market for years and have a wide network of connections. This is why we consider it second best to shed some light on the anomalies of legal regulation by telling particular stories. In none of the cases does the identity of the particular characters interest us, but their motivations and the situations and the institutional environment in which they act.

Although rent-seeking and corruption refer to different phenomena, (Lambsdorff, 2001; Lambsdorff, 2007), they have a lot of characteristics in common and they are a closely linked pair. (Olson, 1987 [1982]; Besley, 2006.) Theoretical results (Szántó, 2009) point out that a) the process of legislation is not transparent and difficult to predict; b) market actors are openly included in the legislative process; c) the wide discretional possibilities of politicians help increase the risk of corruption, and widen the supply side of corruption.

A guide to the practice of regulation

We are going to use two examples to show how state capture by market actors may take place in practice and what consequences it may have.

a) When legislators influence market actors

On 23 May an amendment was proposed by an individual MP to the planned VET modifications of 2005. The original proposal included that electricity providers should not be allowed to switch-off electricity in households failing to pay their bills. One of the proposals initiated social measures which would have meant that the households not paying could get electricity paid for by the service providers.

"92. § (2) If the consumer has not met the due expectations of payment – but the conditions described in paragraph (1) have not yet set in -, the public utility provider may initiate the installation and use of a pre-paid meter at its own cost."

⁵¹ See the series of articles on the activities of István Kocsis, ex-CEO of MVM at Index by Tamás Bodoky, who got a Pulitzer prize in March 2010. for this series, amongst others. (http://index.hu/kultur/media/2010/03/21/bodoky_tamas_pulitzer-emlekdijat_kapott/).

⁵² See the documents of the story in the appendix of the study



The related argument:

"The second point of the proposed bill amends the rules of the proposed bill related to social electricity supply in order that real persons using the public utility could not be disconnected from the public electricity utility grid, in harmony with the rulings of 92. §."

To support the measures, the legislators cited two arguments: firstly, they relied on the importance of social supply in hope of succeeding with their plan, secondly, they pointed at the obligations of legal harmonisation with the EU. However, that day they handed in an amendment somewhat overriding the previous parliamentary text (the same people handed in both), in which they seem to take the edge off their statements.⁵³ The author of the article musing over the case attributes the sudden change to the MPs realizing: the legislation would eventually raise the bills of households that pay, which would not bring them political popularity⁵⁴. One of our interviewees shared with us the following, which shows a different aspect of the story:

"All of a sudden the telephone rang at a service provider, at the end of the line there was Mr. L. P., a politician of the governing party. He himself called everybody, pointing out that the deletion of the paragraph costs money, and they would have to transfer X-Y million HUF here and there, to such and such accounts. One part of the sum had to be transferred to the account of one of the daily papers." László Szabó

We do not know and it is not our duty to find out what the real story is in this case. But that is not the point either. It is not one particular case that is interesting to us but the system of connections, the institutional environment which it illustrates, about which it reports. According to this, corruption risks have to be taken into account on the level of Hungarian legislation as well – however difficult it may be to accept such a possibility. Research which studies the motivations of political and economic actors and the relations of these motivations to the institutional system has to look at the causes of corruption risks and their social and welfare consequences.

In any democratic European country, such an intervention by the legislator could only be rare, with low probability, due to the one-off nature of such transactions and the high risk of getting caught. However, their occurrence cannot be ruled out, since according to the connections analyzed earlier, the logical arguments are more likely to be in favour of, rather than against them, and this is a precedent for the researcher. Earlier research (Szántó-Tóth, 2008 and Szántó-Tóth-Varga, 2009) seem to verify the hypothesis that an earlier interviewee of ours put into words about Hungarian corruption: "suffering is becoming subtler". That is, those participating in corruption use finer and finer techniques and ways to disguise corruption. The results of our research so far says that instead of the one-off corruption transactions, described by diadic connections, in recent years there are multi-player, network-based transactions (Szántó-Tóth-Varga, 2009). However, the above example points not to this, but to the existence of rougher and simpler solutions. If this version of the story is true, then this partly refutes the results of our research so far, as it would also show that corruption could have taken place as an undetermined practice, and has not yet been institutionalized.

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⁵³ The point of the correction is that while keeping the card electricity meter concept but filtering out the free riders of the system successfully, they only authorize those to enjoy social electricity service who really need it, which would be financed by the municipalities and "voluntary donations".

⁵⁴ Law on electricity consumers. HVG, 1 June 2005.



b) When market actors influence the legislators

We reconstructed the process of the 2007 amendment of the VET based on the interviews. The professional document was prepared in the MEH by about 8-10 people while only 6 people worked on the draft bill in the Ministry. Our interviewee who worked in the ministry reported that they had 11 hours altogether to form a united, professional opinion on each and every one of the hundreds of amendments proposed. Amendments could be proposed until 22pm on 4 June, and at 9am the next morning the secretary of state had to introduce the viewpoint of the government in the parliamentary committee.

"Our improvised technique was that we piled up the proposals in two piles according to whether they can be supported or not. I was looking at one of them, showing it to the others, it looked so familiar. I went through earlier documents and there it was: an amendment from a government MP was word by word the same as one from an opposition one, even the typo was in the same place. We laughed a lot about that at the time with our colleagues." Ferenc Török

As researchers, we would like to point out three things in the above story, which we think are crucial to the failure or success of a regulation. Firstly, the number of people working on preparing a bill (we mentioned, 6 persons) seems too low. Secondly, although they are excellent policy makers, they have not long been working on energy issues. The third factor is the time that was allocated for responsible professional decision making. An actor taking part in the professional preparation of the decision recalls:

"This was a game about how they could neutralise us. As they could not reach us directly, this was the only way that politics could knock out the ministry." Ferenc Török

The attempt to undermine professional decision – whether it was intentional or accidental – questions the success of the process preparing a responsible long-term decision. Further analysis could be carried out into the case of the politicians handing in the same amendment. This is a typical example of state capture if we accept the logical opinion shared by many of our sources that the text of the two amendments came from the same market actor.

"It is not only a rumour that the CEO got on well with many opposition and government politicians alike. I don't think this is particularly unusual, when you consider that the large parties are extremely heterogenic." Katalin Varga

In general we have mentioned the problem caused by the non-transparent background and the lack of information about the real initiatives behind amendments to proposed bills. The same is the case with this particular example: although the direct intervention of market actors cannot be stated as a fact, - and neither is it our aim to do so -, as researchers we have to say that it is the shortcomings of the regulatory environment that prevents us from getting information about the environment around the creation of amendments. The fact that the text of two amendment proposals are the same tells us – like a slip of the tongue - that those who proposed them acted in the interest of the same lobby.



3. THE REGULATION OF THE INSTALLATION OF WIND POWER STATIONS

3.1. Introduction

The integration of energy produced by renewables into the grid and the increasing of the share of green energy as opposed to conventional fuels could be seen as the energy challenge of the 21st century. This challenge does of course hold for Hungary too, even more so because of its dependency on foreign imports. This realisation – the importance of production capacity based on alternative energy sources - is already emphasized by the Electricity Act CX. Of 200 (VET).⁵⁵

The government support of projects aiming at the production of renewable energy is necessary basically for two reasons. Firstly, the price of conventionally produced energy does not include the so-called external costs, which are embodied for example in the reparation of environmental damage caused by polluting technologies.

So in the present situation, the higher than market prices of energy production using environmentally-friendly technologies prevent companies using these technologies from entering the market in the first place. On top of that, the relatively high initial investment costs of these technologies shrink the circle of those companies that can enter this market.

Because of the above it is important that governments and the EU create a regulatory environment which enhances the development of this market segment and support the businesses contemplating entering the market.

The EC Directive 2001/77/EC obliged the member states to cover 12% of their energy production from renewables by 2012. In the communiqué published in January 2007 they modified the target to 20% which the member states have to reach by 2020. For Hungary this target is 13%. The EU left the implementation up to the member states but it suggested the lowering of entry restrictions and the prioritisation of renewable energy sources on behalf of the system operator.

Governments worked out a number of methods to eliminate the barriers to entering the market for businesses aiming to produce energy from renewables and to provide finances needed for high one-off investment costs.

In the following we list their more important characteristics without analysing their conditions, economic effects and the effects on the regulators and market actors. We do not dwell on the – otherwise important - question of what risks each method carry in respect of rent-seeking and corruption. An analysis of these questions is beyond the scope of the present study.

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⁵⁵ "For the sake of conservation and environmental protection, for supplying the users, for efficient use of primary energy resources and for widening the available energy resources, the use of renewable energy, using waste as fuel, and coproduced heat and electricity have to be promoted." VET 9. § (1)



Table 3.1.1. Regulatory tools supporting the introduction of renewable energy resources.

	Dii	Indirect		
	Price	Quantity		
Investment incentive	Support of investment, tax concessions, low cost loans	Grant application system for support for investment	Environmental taxes Simplified system for licence application for green energy.	
Production incentives	Set price for feed-in, Fixed premium system	Grant application system for long-term contracts, tradable green certificates	Lowering in cost of connection	

Source: Auer, Resch, Haas, Held, & Ragwitz, 2009

We can differentiate between direct and indirect regulation techniques, those promoting investment and those promoting production and within direct incentives we can differentiate between those mechanisms that reach an effect through price and those which are quantitative. (See table 3.1.1)

Production incentives working through the price mechanism are introduced when the new technology has not yet spread. Investment incentive price subsidies allow favourable credit rates, tax reductions and subsidies for built capacity. In the case of feed-in tariffs the power plant can sell all units of its produced electricity at a regulated price above the market price. Price subsidies are linear, so each and every kWh produced enjoys the same amount of support. In the fixed premium system they add a pre-set premium to the market price of electricity, and the traders buy electricity at this price.

Fixed feed-in tariffs are more advantageous for power plants than the premium system, because the latter is influenced by the fluctuation of electricity prices which is difficult to predict.

Tenders feature frequently among quantitative incentives: the company giving the cheapest quote on the tender gets an investment subsidy to carry out the project, or gets a long term feed-in agreement – it can sell its electricity in the given period at a guaranteed price. Tradable green certificates provide a more interesting solution: the regulator can oblige electricity producers to cover a certain part of their production from renewables. The plants producing from renewables get green certificates to match the extent of their production, the price of which is an incentive to produce renewable energy.

Quantitative incentives always help the installation of a certain capacity (the extent of the green certificates, the conditions of the feed-in agreement etc.), their maintenance is cheap, and in theory they are introduced in states with a more developed energy sector. Maintaining price-based incentives is expensive but they result in a quick expansion of capacity and production.

Indirect methods are also frequent besides direct ones: end users or service providers not using green energy can pay a polluters' tax, which is then spent on supporting renewables. Reducing institutional barriers greatly helps the introduction of new technology. Another cost that appears in production is the amount of connection fee, which is set by the system operator. The spread of the production of green energy can be supported by low or zero connection fees. (Auer, Resch, Haas, Held, & Ragwitz, 2009. pp. 7–9.) Let us now have a look at the regulation of the production of green energy in some EU states.

The United Kingdom experimented with quantitative and indirect incentives in the 1990s: they issued calls for application for installing wind power station capacity. They set out to install 1500 MW of capacity by 2000. They financed the costs of the tender from the polluters' tax. They ran five tenders in the course of which the company quoting the lowest price per kWh won. In order to secure their position during the procedure, the companies gave quotes that were too low. So, although they were successful on paper, the tenders lead to little capacity actually being built. (Haas and colleagues, 2007. p. 22.) Seeing the failure of regulation, they employed a new method: they expanded the market by introducing tradable green certificates.



Service providers were obliged to cover an ever-increasing part of their electricity from renewables; only 7% in 2006 while 15% by 2020. Those not using or not using enough green energy have to pay Climate Change Levy which is spent on supporting investment into renewable based power plants. Renewable energy does not enjoy priority with respect to access to the grid.

Holland increased the share of wind power in electricity production by the means of feed-in tariffs. However, the government found the system too costly and in 2006 they replaced it with the cheaper fixed premium system. (Haas and colleagues, 2007. p.12) The plants producing renewable energy and the consumers buying it are exempt from paying the 'Ecotax'. Regulation supports building new power plants and integrating renewable energy into the grid. The systems operator has to connect all plants to the grid, and cannot give preference to green energy. Using the grid is not done on any preferential terms either.

Denmark was a pioneer in using wind power: subsidy systems already existed in 1979. The government applied generous feed-in tariffs in the 1990s, and in the 2000s the premium system was introduced, which operated with much lower prices. The installation of offshore wind power stations was regulated by tenders. The production of wind power stations is done totally by the Danish industry, (the Danish Vestas company owns 28% of the world market in this). Although connection to the grid is not subsidised, renewable energy enjoys priority in using it.

Feed-in tariffs were introduced in Spain in 1994. Due to high tariffs, wind power provided 27.5 TWh of electricity on a yearly level in 2006. Spanish capacities surpassed 16740 MW in 2008, and with this Spain became the third biggest producer in the world. (Roberts, 2009.) According to present regulation, producers even receive a premium on top of the feed-in tariff. The systems operator gives preference to those producing renewable energy both in connecting to the grid and feeding in energy.

Table 3.1.2 Regulatory environment and wind energy

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	Production of wind power relative to production of electricity, 2007	Yearly wind energy production, 2007 (GWh)	Yearly electricity production, 2007 (GWh)	The subsidy of production	Connection subsidy
Hungary	0.30%	110	39959	Feed-in tariff, Compulsory Feed-in Tariff (KÁT)	Priority in connecting and in using the grid, connection is covered by the system operator
Holland	1.30%	3438	103241	Premium (previously feed-in), Eco-tax	None
Austria	3.20%	2015	63430	Feed-in tariff	None
United Kingdom	3.30%	5274	396143	Green certificate, Eco-tax	None
Germany	6.20%	39713	637101	Feed-in tariff	Priority connection, there is no user fee
Spain	9.10%	27509	303293	Feed-in tariff, premium	Priority connection and usage of grid
Denmark	18.30%	7173	39154	Premium (previously feed-in)	Subsidised grid use

Source: Eurostat (Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit, 2009.)

The feed-in tariff system operates in Germany too. The tariffs concerning wind differ according to the characteristics of the plant (wind force, year of construction, etc.). Differentiation between plants was included in the law in order to support more efficient technologies because, due to the tariffs introduced in the nineties, plants that utilised already outdated technologies were also built. The plants enjoy priority in connection to the grid and they do not have to pay a user fee.

Austria also employs feed-in tariffs, the Ökostromgesetz of 2003 regulates the feed-in price of renewables. They do not enjoy priority in connecting to the grid, but if the grid is overloaded, they are



the last to be cut off.

Table 3.1.2. elaborates on the regulation of the few states discussed and the spread of wind power.

Although we cannot draw strong conclusions from these narrow comparisons, we can say that the proportion of wind power in electricity production is high in those countries having a wider subsidy system and employing feed-in tariffs (now or earlier on).

These experiences also point out how surprising it is that the tools and methods that proved to work well in many places did not bring a swift expansion of the capacities in Hungary.

The legal background creates the necessary but not the sufficient institutional conditions for the spread of green energy. The regulations and the institutional environment guaranteeing the licensing procedure can both be critical for the building of capacity. The PROGRESS survey, completed in 2008, examined the EU member states' licensing procedures for renewable energy plants, and was carried out through questionnaires filled in by market players and energy industry experts. (Ragwitz & Held, 2008.) They assessed the number of licensing authorities, the transparency of the procedure and the average duration of the process. In the following we summarize briefly the most important findings of the study, with special attention to the relation of the EU and the Hungarian average.

In the EU member states you have to apply to an average of 10 authorities for the building permits for renewable power plants – in Hungary this number is around 40 according to the study.

This number is overestimated in the case of Hungary, though. The uncertainty of regulation and the randomness of information on permit applications are well illustrated by the fact that not only the results of the empirical studies, but even the entrepreneurs working on wind farm projects also referred to having to apply to about 40 authorities for 40 different permits. With one exception, nobody could give an exact number, nor list the necessary permits one by one.

In fact, 15 authorities have to be approached to install wind power stations (see appendix. This list was given to us by one of our interviewees, and a lecture on the problem s of wind power stations basically includes the same permits). Purchasing these 15 permits is not an easy job for someone contemplating a wind farm project, and the licensing procedure can last 6-8 months, possibly 1-2 years even, depending on the quality of and the errors in the applications.

This exaggeration of administrative burdens and the lack of knowledge of the list of necessary permits bring important information to the surface indirectly. Every time a company decides to enter a market, there are administrative costs. These can be considered the transactional costs of entering the market. In this case the government can help increase a market segment by reducing these transactional costs, which means that it prescribes the simplest possible administrative conditions for entering the market. We listed this step earlier among "tools of indirect subsidy" (a). If the government cannot do this, it can at least inform those planning to enter the market fully and precisely about the administrative conditions and the ways of meeting those, practically providing a guide; thus reducing the administrative costs of businesses (b).

The institutional environment of entering the market and the simplicity and predictability of institutional environment in general is in a close and positive relationship with the rate of growth of a market segment and more widely with that of an economy. The institutional environment does matter. This statement is not only the focus of North's works, but is supported by a number of studies backed up by rich empirical databases (see the Governance Matters research of the WB).

It is not at all a marginal question in this respect whether the government sees the importance of decreasing the transactional costs of entering the market for wind farm investments or not. The history of wind farm investments in Hungary so far proves that the government and government institutions do not realise the importance of this factor or do not take notice of this connection.

Another aspect that can be related to the appearance of corruption risks is the one concerning the large number of permits and the fact that the conditions for obtaining them through the licensing procedures are not always clear, and an understanding of conditions that are themselves reasons for refusal is not self-evident either. The series of licensing procedures is one of the sources of the appearance of corruption in Hungary. If we take the risk of corruption in a licensing procedure for



granted, more permits mean corruption is more strongly present. This presence is primarily embodied in demand for corruption (businesses are ready to make a sacrifice for the attractive investment opportunities of wind farms and is ready to pay a corruption charge to the issuer for purchasing the permit, or for purchasing it more quickly. On the other hand, the supply side is not passive in this case either — it is not in the authorities' interest tissue permits in a precise and timely way nor to communicate the conditions of obtaining a permit or being refused, rather its interest is to slow down the licensing procedure. (Rose-Ackermann, 1978 and Rose-Ackermann, 1999).]

The most permits are issued in Greece, the United Kingdom, Lithuania and France. Some other measures ease the restrictive role of institutions in some places: in Greece for example, the time limit of the licensing process is six months, authorities have to accept or refuse the applications in this period of time. In many member states however, there is no such regulation, so the applications handed in can circulate through the administration indefinitely. (Ragwitz & Held, 2008. p. 67.)

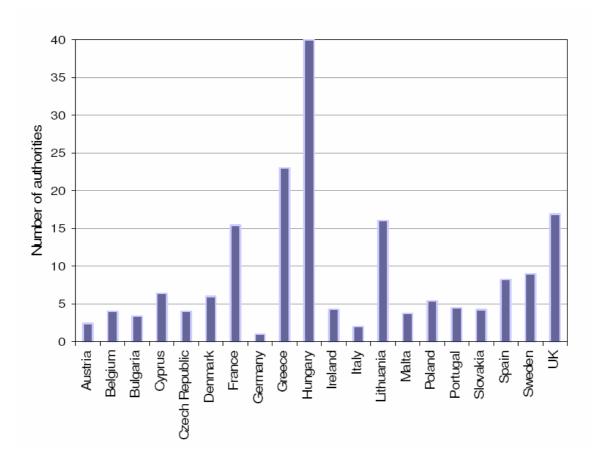


Figure 3.1.1. The number of offices playing a role in licensing renewable power plants, 2007 Source: Ragwitz & Held, 2008. p. 67.

61% of market actors found the procedure unambiguous and well thought out on an EU level – this ratio in Hungary was around 50%. The average duration of the licensing procedure surpassed two years in the majority of EU states, three or three and a half years duration were not uncommon either. The average duration of the procedure in Hungary is around two years. (Ragwitz & Held, 2008. p. 72.) Apart from the licensing procedure, it is worth dwelling on the actual circumstances of connecting to the grid. Although the conditions and way of this is supported by legislation and decrees in Hungary (Act LXXXVI. of 2007 [Electricity Act], paragraph 170, 2nd point and 117/2007. [XII. 29.]Decree of Ministry of Economics and Transport),⁵⁶ technological condition are not always present for the

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⁵⁶ 117/2007. (XII. 29.) GKM decree on the financial and technical conditions of connecting to the public grid. See:



capacities to connect. In 40% of the cases in the EU, wind power is not connected to the grid for lack of capacity. (Ragwitz & Held, 2008. pp. 76–77.)

The institutional environment of particular countries shows a rather heterogeneous picture of the regulation of renewables and more particularly of wind power. Hungary has done little compared to its opportunities in the past ten years to accommodate the sector that has a more and more strategic importance on an international level. We think that this lag can primarily be attributed to regulation, technology and expertise related factors only play a marginal role. Resources (wind, geothermal energy, biomass etc.) are available in Hungary as is the expertise and technological conditions.

We have not been able to trace any studies made or ordered by the government that would have analysed the advantages and disadvantages of regulatory methods aimed at helping wind power projects.⁵⁷

The lack of studies dealing with regulatory opportunities and their possible Hungarian adaptation is a sign in itself and foreshadows the chance of government failure.

3.2. A short history of regulation and quota allocation

It is a common experience of Hungarian entrepreneurs dealing with wind power that in the beginning, when they started their businesses, they had high expectations of a rapid growth, and installing wind power stations seemed like an excellent investment. But the unpredictability of regulation and the lengthy and costly procedure of licensing cooled down the initial enthusiasm, although it did not deter these entrepreneurs from their original aims altogether.

Apart from the negative effects of regulation there seems to be some anti wind power sentiment unfolding in Hungarian public discourse lately, blaming renewables for the rise in the price of electricity, which - surprisingly enough - is re-enforced by both the media and the politicians making statements in the media. These news broadcasts suggest that "renewable energy and more precisely wind energy is responsible for the high price of electricity and the rise in the price of electricity, since this kind of electricity is bought compulsorily by the system operator at a price higher than that on the market". At the same time, in the first half of 2009 for example, only 4% of the energy production within the compulsory feed-in tariff system (KÁT) ⁵⁸ – which can result in price rises unaffected by market processes – was supplied by wind farms. The Hungarian Energy Office also refers to the compulsory feed-in tariff system and the high feed-in tariffs of renewables when authorising the price rise proposals of service providers.⁵⁹

https://www.demasz.hu/servlet/download?type=file&id=918

⁵⁷ We found one study (Pál-Huba, 2004), which marginally touches upon this question too, and lists the possible ways of regulation.

⁵⁸ Compulsory feed in production schedule notification system

⁵⁹ See for example the 579/2009 MEH decree (http://www.eh.gov.hu/gcpdocs/200910/skmbtc45109102613110.pdf) and the news broadcast on the price rise: Another price rise from November. Service providers forced their price rise initiatives down the MEH's throat. NOL 16 October, 2009. http://www.nol.hu/lap/gazdasag/20091016-novembertol_aramaremeles



"They make people blame renewables – said one of the entrepreneurs briefly." Tóth Zoltán

"All it says about the compulsory feed-in tariff budget is that including the cogenerated is reasonable and worth supporting because it is indeed more economical and environmentally friendly than the conventional form. But if the co-generated were not included in the compulsory feed-in, and if they separated the "price-rise" effect of the cogenerated and renewables, then it would turn out that what is a 2.5 HUF burden on the electricity bill "because of renewables" is in fact 72% cogenerated and only 28% (60 fillér) is caused by renewables. "Kovács Mária"

Act CX of 2001 on electricity (VET) was the first Hungarian law to include the definition of renewable resources and the framework conditions of subsidising plants built on such resources. Paragraphs (1)-(3) of 95/A. § of the VET define the feed-in tariff of the energy coming from renewable resources:

VET 95/A. § (1) The initial feed-in tariff of electricity produced from renewable resources and subject to the compulsory feed-in system is $k \times 23$ Ft/kWh.

- (2) The value of the factor "k" defined in paragraph (1) is 1 until 31 December, 2005. In the following years the value of "k" from the first day of the year is the multiplication of the value of "k" in the previous year and the value of the most recent (last) Consumer Price Index related to the corresponding period of the previous year published before 1 January by the Central Statistics Office.
- (3) The price defined in paragraph (1) does not include VAT. Furthermore, paragraph (5) of § 45. of the VET obliges the service provider to take up the renewable energy produced in its area.

The law authorised the Minister of Economics to define the rules for feeding in the energy sourced from renewables, which did indeed happen in the 56/2002. (XII. 29.) GKM decree. Paragraph 41/A. § (2) of the implementation directive of the VET regulates what concerns the Hungarian Energy Office (MEH) has to take into account when licensing particular plants. One of the most important is Hungary's commitment to renewable based electricity production and to the competitiveness of electricity produced from renewable resources.

The law included another piece of legislation, according to which wind power stations with a capacity lower than 50 MW can get a combined small power station permit, obtaining which is relatively simple compared to the general licensing procedure:

Electricity Act 52/A. § "In the case of small power plants with 0.5 MW of output or more, the simplified licensing procedure has to be carried out in the cases defined in point a) of paragraph (1) of 51.§. The Office issues a joint permit in one procedure to choose the resource, install and produce electricity with a small power plant."

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⁶⁰ See http://www.mesz.co.hu/laws%5C56_2002GKM.pdf



The Compulsory Feed-in Tariff System and its expansion

The Electricity Act was amended by Act LXXIX of 2005, which differentiates between those renewable energy sources depending on and those not depending on the weather. In 2005 the amendment on compulsory feed-in tariffs was first made to the Electricity Act (5. § 11.b) as a result of a private member's proposal. According to this the Minister of Economics has the right to set the mandatory feed-in regulations for electricity generated from renewable and co-generation, or other methods defined by the legislation. This includes the right to regulate the system of energy subsidies for electricity generated this way, with the agreement of the Finance Minister.

"Civil society regarded the last-minute acceptance of the proposal, put forward as a motion for amendment, as its victory too." Éva Molnár

"...there is the case of the compulsory feed-in tariff amendment (2005), where they accepted a proposal to put in 23 HUF + prevailing inflation for renewables after a parliamentary debate. The Hungarian Energy Office never even knew about it until after it had been accepted but the first application was already there on their table – from Callis." Kiss János

The Act set a compulsory feed-in tariff at 23HUF/kWh [VET 95/A. § (1)], corrected annually based on the previous year's inflation. The duration and quantity of the compulsory feed-in tariff is set by the Hungarian Energy Office. The price of electricity generated from resources not dependent on the weather varies according to peak, off-peak and "deep valley" times.

As international examples have shown, a government can use types of regulation other than the compulsory feed-in and the - higher than the market price - feed-in tariff to encourage renewable energy, including wind energy, to expand in a country.

The Hungarian regulations changed so that besides the renewable energy that was originally included in the KÁP⁶¹, in 2003 the scope was widened⁶² to include the smaller capacity so-called combined heat and electricity units⁶³. According to the regulations those heat and electricity power stations with a maximum of 50MW operational capacity could be subsidised, and those under 6MW could receive preferential reductions. Over the years the list of those entitled to subsidy changed many times thanks to governmental decrees. The scope of the compulsory feed-in tariff existing since 2005 was significantly widened from 2007 onwards. Governmental Decree 389/2007. (XII.23.) allowed for the inclusion of 50 and 100 MW power stations⁶² in particular circumstances⁶⁴, and later by the Governmental Decree 287/2008. (XI. 28.) and 100-190 MW power stations serving district-heating were also included in the scope of the compulsory feed-in tariff⁶⁵.

⁶¹ KÁP: a compensative financial mechanism connected the compulsory feed-in of energy generated from renewable energy sources, waste or combined heat and power. See: http://www.eh.gov.hu/gcpdocs/200810/microsoftword2008iflvkttthcsiks 3 4 doc 20081010105645.pdf

 ^{56/2002. (}XII. 29.) The decree of the Ministry of Economics and Transport GKM on the regulations governing the electricity subject to compulsory feed-in and the setting of the feed-in prices. See: http://www.mesz.co.hu/laws%5C56_2002GKM.pdf
63 "cogeneration means providing two different types of energy – within a process -, (electricity and heat) corresponding to one primary base, produced by a gas motor or a turbine. Cogeneration is a rational and highly efficient solution for those energy consumers which use heat and electricity at the same time, want to direct their energy consumption independently and are able to feed in the electricity to the public grid. Cogeneration has two goals which closely relate to each other: on the one

able to feed in the electricity to the public grid. Cogeneration has two goals which closely relate to each other: on the one hand the cogenerated energy production is realised at a significantly increased overall energetic efficiency, which means a saving in primary energy, and through this a cost-saving is achieved. On the other hand, thanks to the decrease in the amount of fuel consumed, the polluting emissions (CO2) are also greatly reduced, which is advantageous for the environment. See: http://www.egaz-degaz.hu/hu/musz_kogenaracio.html

⁶⁴ See: "5. § (3) 1. The sale of heat from cogeneration is used for the purposes of district heating, or is separately handled for providing for an institution, and 2. The nominal electricity capacity of the power plant unit falls between 50 and 100 MW. "Source: http://net.jogtar.hu/jr/gen/getdoc.cgi?docid=a0700389.kor

⁶⁵ See the relevant legislation point 5. § (4) b). Source: http://khem.gov.hu/data/cms1920482/287_2008.pdf





In the case of the KÁP, the fee for using the system provided the financial cover for subsidising the market players, whereas the cost of the compulsory feed-in tariff is accounted for directly through the electricity price.

MAVIR pays the bills for the producers, while the service providers for households and companies are required to contribute a proportion to the compulsory feed-in tariff account, based on their electricity sales. The government decree 389/2007. (XII. 23.), which came into effect from January 1st, 2008, gave MAVIR the right to create the account.

The new Electricity Act (LXXXVI of year 2007) provided the opportunity to create more accurate feed-in regulations. This made it compulsory for the domestic users and traders, - based on the contract with the feed-in system operator – for the compulsory feed-in tariff receivers to take the electricity accounted for in the separate account. (Tóth and Csikós, 2008; Hungarian Energy Office, 2008d). In compliance with government decree A 389/2007. (XII. 23.), this happens in relation to the amount of electricity sold to users.

Government decree 287/2008. (XI. 28) provides for a more favourable feed-in tariff for wind power stations than for other green energy producers. Between January 1st, 2008 and November 30th, 2008 the feed-in tariff for wind power stations with a capacity of between 20 and 50 MW was the same as that of the other renewable energy producers. [The prices effective since October 1st, 2009. (+ VAT): 24.9 HUF, 22.29 HUF and 9.09 HUF – Hungarian Energy Office, 2008d.] As of November 30th, 2008 those wind power stations bigger than 20 MW but no bigger than 50 MW were transferred to another tariff category [The prices effective since October 1st, 2009. (+ VAT): 31.13 HUF, 27.86 HUF and 11.37 HUF. – Energy Office, 2009a]. – See table 3.2.1!

Table 3.2.1. The compulsory feed-in tariffs for electricity from combined heat and power sources, from October 1st, 2009. HUF/kWh (without VAT)

			Peak	Off-peak	"Deep valley"
Electricity generated from renewable energy sources	Produced on the basis of the order brought by the Hungarian Energy Office before January 1, 2008 (or applications made before this) (except hydro-electric power stations larger than 5 MW).	Generated by solar and wind power stations	28.13	28.13	28.13
		Generated by power stations with up to and including 20 MW capacity (except solar)	31.13	27.86	11.37
	Produced after January 1, 2008 on the basis of the decision of the Hungarian Energy Office (except hydro-electric power stations larger than 5 MW or other power stations	Generated by power stations with a capacity between 20 MW and 50 MW (except, wind from November 30th, 2008, and solar)	24.90	22.29	9.09
	larger than 50 MW).	Generated from November 30th, 2008 by wind power stations with a capacity between 20MW and 50MW	31.13	27.86	11.37

^{*} Source: http://www.eh.gov.hu/gcpdocs/200909/honlapra_kot_atv_arak2009_10_2.xls

It can be seen from the description that in respect of wind power stations there are presently two types of compulsory feed-in tariffs in effect at the same time. The Hungarian Energy Office guarantees those





who received their permit before January 1st, 2008 a unified (valid from October 1st, 2009) 28.13 HUF (+ VAT) for all periods. However, a differentiated tariff applies to those who received theirs later.

43 billion HUF was in the compulsory feed-in tariff system in the first half of 2009⁶⁶. After numerous amendments, in the first half of 2009, according to the Hungarian Energy Office's official data, 72% of the first half year's total compulsory feed-in tariff subsidy⁶⁷, 30.9 billion HUF was for electricity from combined heat and power generated using natural gas.⁶⁸ (Tóth and Csikós, 2008; Hungarian Energy Office, 2009a; Zöldtech, 2009.)

It can be seen that the compulsory feed-in gives a double security to the producers. On the one hand they can sell the electricity at a fixed price, independent of the price changes on the free market and far above the free market price. Moreover, the regulation states that a buyer's market must be ensured for "green electricity". These two advantages are very attractive to the energy producing companies – and not only to those producing renewable energy.

The inclusion of smaller energy producing cogeneration units in the KÁP account created in principle the possibility of opening towards the so-called "heat and power" power stations too, those similarly utilising cogeneration and with a larger capacity, including them in the scope of the compulsory feed-in tariff without any cardinal regulatory changes.

With this the government basically offered the prospective rents on a plate, and the companies naturally took up this opportunity. With time, others also took the notion and attempted to join in amongst the beneficiaries:

"... [The compulsory feed-in tariff system] is a good opportunity to earn a lot of money extremely easily. You say about some or another power station that it is generating from renewable sources and, for example, purchase from me this particular energy for xy HUF/KW/h. As a result of this, the proportion of the compulsory feed-in increased by 30–35%. 20% of overall energy production is considered working from renewable sources. This pushes the prices up nicely, and corruption offers a wonderful possibility for classifying basically any power station as a compulsory in-feeder." Anna Farkas

"The trouble started when the big guys also got to like this path and its prospective benefits.

(...)

After that the bigger power stations fell in one after another. First of all XY Ltd wandered up to the Prime Minister, due to which a ministerial decree came about. That is how XY's 'such and such type' power station was included in the scope of the compulsory feed-in tariff. The biggest achievement was the inclusion of the 500 MW 'such and such type' power station, which has, incidentally, a French owner. Spread the benefits about to German and French owners, the consumer, however, gets nothing. You subsidise the heat generators but they will never pass this on to the consumers. It may, however, end up in the party coffer." Katalin Varga

"There was no real lobby influence on the law other than on the compulsory feed-in tariff. From a professional point of view there are a few questionable decisions, for

 $^{^{66}}$ The main indicators in the first half year of the amount of electricity produced in the framework of the compulsory feed-in tariff. September, 2009.

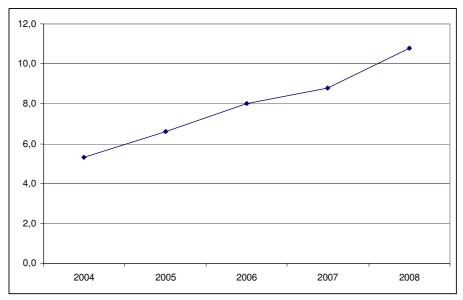
⁶⁷ "Subsidy": the difference between the actual price and the market price.

the change in "subsidy" according to categories (million huf, % rata) 2009, first half year.



example the free market part is small, the public sphere is large, and there is no real competition." Ferenc Török

The strengthening of lobbyists' activity can be credited with the changes made to the scope of the compulsory feed-in tariff and the disproportionate inclusion of combined heat and electricity power stations. While their share of overall Hungarian electricity generation was around 6.6% in 2005, by 2008 it had doubled and grown to nearly 11%. (See diagram 3.3.1.)



Source: Hungarian Energy Office

Diagram 3.2.1. The share of total Hungarian electricity generation of cogeneration power stations participating in compulsory feed-in, 2004-2008(%).

Accordingly, the changes in regulation, which characteristically took place by decree, primarily served the interests of the cogeneration power stations, in such a way that it reduced to marginal importance the compulsory feed-in tariff system's original goal of supporting renewable energy generation.

"Besides a guaranteed market, these companies even partook of massive price subsidies, their products had to be bought at an inflated price. The most interesting thing in all of this is that not only the renewable energy companies were included in the scope but natural gas based companies too (so-called cogeneration electricity producers, which operate with such a procedure, that the heat and the electricity are produced in one process, hence with good efficiency)" Katalin Varga

"...the regulation's success was rather ambiguous from this aspect, MAVIR has got problems with the cogenerators. It's happened more than once that these natural gas-based cogeneration producers simply let out the resulting heat and gas because the energy office doesn't have the ability to check on them.

(...)

In reality, it can be said that the Hungarian regulatory system supports dated, ex-coal power stations and cogeneration. "Éva Molnár



With this, the regulation of the compulsory feed-in tariff account has become a typical example of rentseeking and government capture in the end, a process of decisions creating the opposite of the original idea. Moreover, the expansion of the compulsory feed-in tariff system has brought the government into contradiction with another one of its manifest goals, the open market principle.

From the point of view of the electricity market, the expansion of the compulsory feed-in tariff system also meant that parallel with the partial opening of the market (by 'liberalisation') those benefiting from the account increased to the detriment of free market sales, so the number of free market actors did not increase, but rather the number of fixed price sellers. ⁶⁹

"It looks like the possibility exists in Hungary today for practically any kind of power stations to be classified as compulsory feed-in." Anna Farkas

'Security of supply'

Wind power is an industry requiring special and versatile knowledge. Few understand it in Hungary. Everyone knows everyone within the industry as they have more or less followed the same professional career path. 'Seat swapping' between the state and the market leaders is common. Energy related knowledge is easy to monopolise and the argumentation of professionals can easily mislead public opinion. This is especially true for professional debates about wind energy:

"Security of supply is the main argument today to disguise up monopoly interests. The theory of limited reception was also the most convincing shot of the opponents of wind energy.

(...)

This is the battle between those with an interest in change and those who want nothing to change significantly, who only want the freedom of their own monopoly position.' Ferenc Takács

For those interested in the workings of the energy market it is difficult to decide how true the above quotes are and how far the growth of renewables is influenced by the Hungarian energy market elite's attachment to the status quo and its desire to hold onto its position.

It is well known from the theoretical background of collective action that hiding the argumentation for choice alternatives behind expert language understood by few is nothing other than an integral part of the strategy of rent-seeking activity by vested interests. (Olson, 1987.) This increases the group's lobbying ability - it is in the prime interest of distributive coalitions that those outside the group, to whose detriment the distributive modification will happen, shouldn't understand what everyone is playing at. We suspect that this is the principle lying behind that much-cited reference, the overarching argument of 'security of supply', too.

In the following part we will briefly introduce those technical conditions which are indispensable from both the regulatory and the market side for the successful installation of wind power stations.

⁶⁹ REKK report on energy market 2009. III. first quarter year, page 10.



The problem from the regulator's point of view

One of the problems with electricity produced by wind power stations is that the power generation is relatively difficult to predict, hence storage of the generated electricity is one possible solution that arises with this technology. This is worth analysing using an economic, a conservation and an environmental perspective together. In Austria for example, making the most of the opportunities offered by the differences in heights - the levelling is solved with the so-called pump technology (Szakértő-3). The hydro-electric power stations are mostly in Tirol, in the surroundings of Salzburg, and on the River Danube. The wind power stations, however, are traditionally further North, in the area of Burgenland, so a cable connection has to be used. In spite of the barriers occurring in feed-in capacity, the use of wind power in Austria is already significant, at the 1000 MW level.

"We can store electricity created this way with two technologies: with the help of the water elevation technology of the Vértes power station (Oroszlány power station) or with the so-called hydrogen cell separation" Anna Farkas

With pumped water energy storage it is possible to store 100-1000 MW energy, while with air condensing energy storage the storing of 50–100 MW can be solved. (Pál, 2007.)

3.5 MW capacity of electricity generating wind power stations were in operation in Hungary in 2004, .68 At that time it was possible to read about many wind power installation programmes in the press, and the prognosis for the quantity of energy to be generated was estimated at 100-150 MW over a couple of years. In 2005 the total capacity of wind power stations in the country grew from 6 to 17 megawatts within a year.⁶⁹ In 2006, 26 wind power stations were in operation in Hungary, with a total capacity of 36.46 megawatts. 70 Concerning the utilisation of renewable resources, in 2006 there was 548 PJ of production, of which 0.3% was produced with the help of wind power stations (Stróbl, 2009) and by 2007 the number of these power stations had grown to 40, with a total capacity of 61.675 megawatt. (VGO, [June 13th, 2007]) In 2008, according to data of the Hungarian Wind Power Society, 63 wind power stations were producing electricity, with an output of 112 megawatts. This didn't even account for one percent of Hungary's energy consumption. (NOL, [September 21st, 2008]) By the end of 2008 the capacity of wind power stations in Hungary had grown to 127 megawatts (FN, [January 27th., 2009]), and then by September 2009 it reached the present output of 177.125 kW, produced by 96 wind power stations across the country.

The data illustrates well the continued growth in the number of wind power stations since 2004. accompanied by an annual doubling of output capacity every year up until 2009. According to EU directives, Hungary has to have 3.6% of its electricity generated by renewable sources by 2010, which it has already achieved with the present output of 5.1%. (MNO, March 11th 2004.)

Apart from the question of storage, the survey of wind-power potential and assessment of the efficiently constructable and operable capacity is also a regulatory task. According to the experts asked, Hungary presently only utilises a fraction of its wind-power potential. It can be seen from the map showing the geographical distribution of wind-power stations 71 that, for example, in the surroundings of Szeged the potential for wind-power station construction is far from being exploited. 72 The availability of accurate information about the weather is essential for the secure operation and predictable production of wind-power stations. The system the National Weather Service (OMSZ) is presently operating is capable of serving data for the daily schedule one day in advance, as well as

⁷⁰ Index [October 11th, 2006].

⁷¹ Opportunities and conditions of expanding wind power capacity in the Hungarian electricity system. Source:

http://portal.mavir.hu/portal/page/portal/Mavir/Hasznos/tanulmanyok/SZTM_v1_31_20081121.pdf

⁷² Based on the environmental statistics yearbook of 2003. Source: D. I. Wantuchné - Z. Konkolyné B. - T. Szentimrey - G. Szépszó, 2005.



determining each whole hour's momentary wind speed (e.g. 9:00:00 _ 4 m/s) (Csákány, [2008].) Presently however, neither the OMSZ nor any company in the field can provide wind data one or two days in advance which would be suitable for determining the productivity at 15 minute intervals.

Apart from the storage and the survey of wind energy potential, and the suitable technical conditions for weather forecasts, a still greater problem is ensuring the system-level technical conditions for the wind-power stations' safe operation. The is presently within MAVIR's scope of authority.

In summary it can be said that on the authorities' side, the survey of energy production potential, the prediction of expected energy production and the development of modern storage methods are those tasks which the regulatory authority has to consider in order to ensure efficient, well-planned and safe operation of the wind-power stations.

The problem from the perspective of market players

Looking from the perspective of the market players, preliminary surveys and securing permits for building the wind-power stations demand the most time and money. The technical realisation can only happen after these.

Numerous factors have to be considered when setting up a wind-power station: the number of annual wind hours, the cost of set-up, the fee for connection to the grid, maintenance costs, the life expectancy of the turbines and of course, the amount of electricity generated (VGO, [26 January, 2005.]) The set-up costs for a wind-power station are in the region of one and a half billion HUF in the case of a 110m high tower. 80% of the costs of a wind-power station are made up of so-called ex works; namely the technology, the turbine itself, the rotor blades and the tower. That is why many experts have urged that the parts be manufactured in Hungary.

Connection to the grid accounts for 2–9% of the overall budget, while the licensing procedure demands an enormous amount of time. Besides these, low cost but otherwise important factors have to be considered such as construction of infrastructure and land rental. (VG, [26 October, 2004.]) News often appears in the press saying that investors have received complaints from local residents, but those interviewed stated that the local people tend to be proud of these developments (MNO, July 10th, 2004).

Wind power stations prove to be good investments – in a properly working regulatory environment -, given that the building costs are recovered in under 8-10 years with the favourable conditions guaranteed by the compulsory feed-in tariff and the average lifetime of a wind-power station being 20-25 years.

A European Union grant is available for wind-power station construction.⁷³ *The Environment and Energy Operational Programme (*Környezet és Energia Operatív Program (KEOP)), announced on September 1st, 2009, offers the newest opportunity. ⁷⁴ This allows funds to be called down from the budget of the EU regional assistance programme presently in force, the Social Renewal Operational Programme (Társadalmi megújulás operatív program (TÁMOP)) which can primarily be used for institutional development.

Concerning the costly procedure of grant writing, according to those interviewed, submitting an application costs a minimum of 500 000 HUF, over and above which a premium has to be paid to the grant-writing company. One interviewee dealing with grant-applications for green power-stations knew about so-called 'sure-to-win' grant-application writing companies, hence some corrupt transaction increases their chances of winning:

⁷³ Previously, the Environment and Infrastructure Operative Programme was in force, (EIOP) between 2004–2006, which gave opportunity to companies and municipalities to apply for funding for energy efficiency and renewable energy. The Phare CBC programmes were open until 2008; the application process is presently running under different tenders. The EU offered 75% non-refundable funding for the winning applications in the framework of the Phare CBC programme.

⁷⁴ Activities supported by the KEOP: (1) Establishment of wind-power stations (<50 kW), and their connection to the electricity grid, (2) Establishment of off-grid wind power stations and their direct connection to consumers, electricity storage units (KEOP, [2009.] p. 11)</p>



"There was once a company that came to us asking for all kinds of help, but wanted to have the actual application written by someone else because this other company was sure to win the application." Éva Molnár

Personal connections play a big part in securing grant funding and even at the stage when the conditions for the actual call itself are written:

"Being well informed in advance is the requirement for successful grant applications in Hungary today. For example, those asked knew the details of present regulations 30 days before they were published. There are always work-in-progress copies which somehow leak out to the participating companies. Ilona Szabó

Some experts interviewed stated that in their opinion it has been known for business interests dealing with carbon-based energy resources to get into the ring at permit-purchase time, presumably with the aim of obstructing the realisation of wind-power station investments.

According to one expert interviewed, there are many "valid" reasons for who is successful in securing grant funding for a wind-power station installation.

"If we are there in December, and have to give out X million HUF, in respect of time constraints, and in some respects from laziness, it is practical to follow up the well known applications." Éva Molnár

Before the Government Decree 246/2005 (XI. 10.) the project developers could get the necessary permits for the investment in a three-step procedure. The decree lengthened the procedure to four steps, stating the need to obtain the Hungarian Energy Office's small power station joint permit, as well as the other three earlier more weighty permits – the environmental (1), the construction (2), and the electricity grid connection contract. To obtain the latter three, a wealth of smaller permissions has to be followed up, which make the process fundamentally longer. The Building permission has to be obtained from Regional Technical Safety Authority (TMBF), which arrives in a maximum of 60 + 30 days (appraisal time + administrative time of issuing the trade authority permit). Obtaining the environmental permit is a maximum of 6 months.

The mandatory Hungarian Energy Office licensing process and quota allocation, 2005–2006.

Because of compulsory feed-in, the simplified licensing process and the popularity of renewable energy, power plants applied for setting up large capacities - 1130 MW in March 2006. However, the Hungarian Energy Office (MEH) only allowed 330 MW of capacity in 2006 referring to the security of the system. The aim of setting up the quota was to decrease the entry of companies and to keep them at a standard level with an optimal limit.

The argument behind 330 MW was the following (MEH, 2006a): the electricity system can bear a maximum fluctuation of 90 MW every five minutes without jeopardising operational safety and incurring further costs. The wind power capacity has to be found which creates a maximum of 90 MW of fluctuation in the grid. To estimate the limit, they set up the following equation:

$$p_{Max} \cdot 0.24 + p_{Max} \cdot 0.24 \cdot 0.1 \le 90MW$$
 (1),

where P_{Max} means the limit to capacity. As a result of the equation, they received 330 MW for the

⁷⁵ Appendix M6 includes the list of authorities and public utilities to be contacted for the instalment and planning permissions for a wind farm in the North-Transdanubia region.



unknown PMax. 76 The 24 percent multiplier gives the proportion of yearly average available, calculated from the applications for permits (2174 / (365 \cdot 24)). The multiplier 0.1 was put in the equation to represent the predictability of wind power, which means that they think that this is how accurately the amount of electricity produced in wind farms can be predicted. However, the choice of the value of parameters seems arbitrary without any kind of reference to any sources.

"Based on experience from Germany it can be said that the accuracy of a 24 hour forecast based on an estimation process using neural networks – also considering historical data – is ~10%." (MEH, 2006a)

After setting up the limit, they allocated the capacities amongst the applications for 550 MW. The ones applying for more did not get the whole quota, but got a license with a 0.51588 multiplier. Only plants under 2 MW were weighed with a multiplier of one unit.

54 percent of the quota was acquired by the Kaptár, Kaptár B, Vento and Mistral companies which submitted a joint application to MEH, in other words they represented a joint venture. Almost 80% of the permits were given to plants on the territory of E.ON North-Danubia Electricity Network Zrt. (ÉDÁSZ).

Table 3.1.3. Wind power plants granted permits in 2006

Beruházó	Projekt	Kérelmezett MW	Szorzó	Allokált MW	Csatalakozási szerződés kelte	MEH kérelem érkezett
B-S Energia	Levél	49,9	0,51588	25	2005.04.19	2005.07.18
CLEAN ENERGY Kft.	Ács	1,5	1	1,5	2005.08.29	2006.01.20
CLEAN ENERGY Kft.	Hegyeshalom	0,85	1	0,85	2005.08.29	2006.01.20
CLEAN ENERGY Kft.	Pápakovács	1,8	1	1,8	2005.08.28	2006.01.20
Euro Green Energy	Zirc-Olaszfalu	49,9	0,51588	25	2005.10.07	2005.12.21
e-Wind Kft	Csősz	0,8	1	0,8	2005.10.30	2005.09.27
e-Wind Kft	Felpéc	0,8	1	8,0	2005.10.30	2005.09.27
e-Wind Kft	Dáka	0,8	1	8,0	2005.10.30	2005.09.27
Hungarowind	Sopronköved-	45	0,51588	23	2005.04.19	2005.10.29
Kaptár	Kisigmánd II.	4,6	0,51588	2	2005.08.30	2005.10.19
Kaptár	lkervár I.	48	0,51588	24	2005.04.15	2005.07.15
Kaptár	Kisigmánd I.	48	0,51588	24	2005.04.15	2005.07.15
Kaptár	Tét I. park	46	0,51588	23	2005.05.20	2005.07.26
Kaptár B	Károlyháza II.	20	0,51588	10	2005.10.24	2005.11.24
Kaptár B	Károlyháza I.	4,6	0,51588	2	2005.08.30	2005.10.19
Mistral	Nagyigmánd	36	0,51588	18	2005.10.30	2005.07.15
Mistral	lkervár II.	32	0,51588	16	2005.10.30	2005.07.29
MOV-R H1 Szélerőmű Kft.	Mosonszolnok-Levél	48	0,51588	24	2005.01.14	2006.02.02
Pannon Szélerőmű Kft.	Bábolna	30	0,51588	15	2005.04.19	2006.02.09
Precíz Építőipari és Kereskedelmi Kft.	Csetény 2.	2	1	2	2005.03.30	2006.02.02
Precíz Építőipari és Kereskedelmi Kft.	Bakonycsernye	1,8	1	1,8	2005.03.30	2006.02.02
Precíz Építőipari és Kereskedelmi Kft.	Csetény 1	1,8	1	1,8	2005.03.30	2005.12.23
Renerwind Kft.	Kapuvár	4	0,51588	2	2005.06.01	2006.02.15
Renerwind Kft.	Jánossomorja J4 J5	4	0,51588	2	2005.06.01	2006.02.03
Renerwind Kft.	Kemenessömjén	4	0,51588	2	2005.08.29	2006.02.15
Renerwind Kft.	Jánossomorja J2 J3	4	0,51588	2	2005.05.17	2006.02.03
Renerwind Kft.	Jánossomorja J6	2	1	2	2005.04.30	2006.02.03
Tritom Kft.	Vönöck 064/25 hrsz.	0,85	1	0,85	2005.07.26	2006.02.03
Vento Kft.	Ács	38	0,51588	19	2005.10.30	2005.07.26
Vento Kft.	Tét II. park	46	0,51588	23	2005.10.30	2005.07.26
VILL-KORR Energiatermelő és Befektetési Kft	Mosonszolnok	0,8	1	8,0	2005.06.30	2006.02.10
VILL-KORR Energiatermelő és Befektetési Kft	Csorna	0,8	1	0,8	2005.07.30	2006.02.10
VILL-KORR Energiatermelő és Befektetési Kft	Veszkény	1,6	0,51588	0	2005.06.30	2006.02.10
Windpower	Ostffyasszonyfa	0,6	1	0,6	2005.08.30	2005.11.24
WPSS	Jánossomorja J1	1,8	1	1,8	2005.04.30	2006.02.03

Source: (MEH, Hungarian Energy Office, 2006b)

⁷⁶ Interestingly enough, it did not occur to anybody that the result of 330 MW comes from a faulty calculation, since the solution of the equation with the given parameters results in 340,90909, which rounds up to 341 MW.



At that time many opinions were already articulated contradicting the official argument. Most of the criticism pointed at the less than well thought through and unfounded setting of the limit by the MEH:

"On the 300 MW quota allocations: the Energy Club warned from the very beginning in 2006 that this regulation clearly provides an opportunity for corruption. Nobody could prove convincingly how this 330 MW was calculated. The attempts of the MEH and the MAVIR could not really be taken seriously." Éva Molnár

"The history of the 330 MW is really simple. XY said none at all, and the MEH made a study about 500 MW. This is how it turned out to be 330. After that, they had an equation made up by M university, which yielded the 330. I only saw it much later, it is not relevant at all. First they made the decision, then they flung the professional looking content to it.

(...)

The old experts' reluctance can be explained from a human point of view. For the eldest amongst them the "unplanable" wind energy simply seems daft, they cannot change their way of thinking that much. And although none of the scares proved to be true, the lobby managed to make sure that nothing happened for a good ten years in the field of wind power." János Kiss

"The MEH set the 330 limit after 1-2 months of calculations based on the data available. Later, a study was made at M university that supported it." István Balogh

"The MAVIR would have originally authorised 600 MW in 2006, but the study on that was put in the drawer. The decision on 330 MW was not supported by any professional argumentation. They want to allow 410 MW on the system with the present regulation, although the situation of the electricity system has worsened since then. According to the interviewee the presently forming 740 would have been the reality back then. They also say that in the last paragraph of X study ('proving' the rationale of the present rise in 27 pages) arguing for 410, it says that it was raised according to a GKM command." Mária Kovács

"...we knew when the decree on quota allocation would come out. We just counted back 8 months from next May. What is happening then? Elections..." Mária Kovács

"Back in 2006 it was not regulated where and how you should have obtained the planning permissions. On one hand you could do it at the TBMF⁷⁷, of which there are 8 in the country, on the other hand from the local municipalities. The former arrived in 60 + 30 days (appraisal time + the period of issuing a trade authority licence), while if you applied to the local municipality, you got away with a maximum of 30 + 30 days. Moreover, there were more refusals at the TBMF, because they really did call all the places (environmentalists, air defence etc.), while on the local level the stamping was done more on a friendly basis, there was no opposition. Those who were clever and knew this loophole, could save a month and a lot of legwork." Ilona Szabó

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⁷⁷ TBMF: Local Technical Safety Authority



The 330 MW quota limit undoubtedly created a rent, since the applications handed in aimed at installing four times as much resources. Another problem is the already mentioned scope of MAVIR permits. The official document proscribed as a pre-requisite of the contract to connect to the grid was not issued any more after November. So, after all, by making it impossible to obtain the permits, they basically prevented part of the applicants from handing in their projects for the MEH permits. Moreover, it is obvious that there were irregularities in the allocation of quotas:

"At the same time there were companies who won quotas without valid environmental permits or with a contract to connect but without valid planning permission.

(...)

The MEH provided an opportunity to supplement the application. In fact, the MEH only looked at whether there was a valid contract to connect. Some of the market actors knew the conditions of the MEH and the MAVIR in advance, and could take steps, so they got an advantage. Since they knew the rule to be passed, they produced their system of papers accordingly." László Nagy

One interviewee mentioned a company which had not yet been registered when it already had a valid contract to connect.

Another opportunity for investors in this case was to buy projects whose leaders had insider information and purchased all the permits well in advance:

"So they bought a project that had everything, all the permits, everything. At the time of the decision in May they read it on the web site that their application had won, up until then they had not known anything. Back in May there was a Hungexpo exhibition where they went. This exhibition ended up in a row and shouting, the frustrated losers almost started to blame the winners" Zoltán Tóth

X company group with won capacity of 150 MW became the most influential wind power investor, but sold all of its quotas on the secondary market. According to one interviewee they made a considerable profit this way:

"1 MW of wind power is worth 80–100 million HUF, so X could put these quotas on the market for 12–15 billion HUF." Zoltán Tóth

At the moment 177 MW of capacity is built of the quotas allocated, but the building of another 70 MW will have been completed in a year: 50 MW in the Mocsa region, and 16 MW by a consortium of companies. That is, 250 MW of capacity connected to the system is expected in 3 years after quota allocation. Out of the 330 MW 15 MW is free at the moment – many of those we asked knew that this capacity is going to be bought by the MVM. The licensing procedure of 2006 so far can be evaluated negatively with respect to quota allocation. But we see similar signs with respect to the proportion of projects having been built.



3.3. Three regulatory steps

In the following we are going to show three examples of regulatory practice concerning wind power, in order to illustrate how the unpredictable legal environment can fundamentally determine the behaviour of market actors.

First: the MAVIR and the government

Up until 2005 the investor in a wind farm project did not need a permit from the system operator. Because of the increased interest in capacities, they prescribed a MAVIR permit as a pre-requisite of the permit from the energy office to start an investment project in 2005.

"All kinds of rumours were spreading before this, in the autumn (or in December) of 2005, when the decision was announced that the approval of MAVIR is needed to make the connection contract with the service provider." László Nagy

However, MAVIR no longer issued such permits at the time, thus making it impossible for some of the applicants to purchase the MEH permits because their applications were considered incomplete without the permit from MAVIR.

"In January 2006 they issued the injunction on the 330 limit in a brochure. It also included that from 10 November the MAVIR had to make a statement on usage, so those who had not finished the licensing procedure had to get an authorisation permit which the MAVIR no longer issued.

So the application that had already been completed won. So the pre-requisite of the connection contract was the unobtainable MAVIR permit. (Although the Electricity Act says that the MAVIR cannot refuse to issue permits, unless it is really justifiable to do so. However, they sent a standard letter of refusal to everybody...)" László Nagy

So only the projects that had been started earlier could compete for the quotas in 2006. The interesting thing in the story is that MAVIR, pursuing its own aims, referring to the all-powerful requirement of "security of service", is able to take a stand against the very clearly articulated

government intention to encourage renewable energy production - and its stand is successful.

Second: Draconian MAVIR and lenient MEH

It has also been known for the regulation to lay out impossible requirements for the market players, ones that would have jeopardised energy production. In these cases the MEH itself helped out the businesses by not checking if they kept to the condition prescribed in the regulation.

A constitutional court inquiry is still in progress because of the surcharge decree of 27 December, 2007 (389/2007. (XII. 23.) Government Decree)⁷⁸. The decree obliged the producers to make a 15 minute schedule, 3-4 days in advance and was in theory in effect from 1st of January:

⁷⁸ See: http://net.jogtar.hu/jr/gen/getdoc.cgi?docid=a0700389.kor



"(4) The authorised Seller has to provide a monthly schedule to the Recipient as prescribed in special legislation, trade regulation and in the accounting contract. If the Seller does not provide the schedule, or hands it in late or not in due form, it has to pay a regulatory surcharge of 7HUF/kWh to the Recipient upon its invoice.

(...)

(7) If the amount of energy sold on a particular day by the seller, who is obliged to provide a schedule for a wind power plant, a solar plant or a hydro plant below 5MW of nominal capacity, deviates from the scheduled amount for that day according to the last valid schedule by more than +/-50%, the seller has to pay a regulation surcharge of 5 HUF for every kWh above the 50% limit for the given month to the Recipient"

MAVIR interpreted the decree in a peculiar way:

"The Hungarian Transmission System Operator Company Ltd (MAVIR Zrt) interprets the decree to mean that the schedule has to be given a day in advance for 15 minute periods, and the deviation has to assessed daily as well. Thus, there were days in January when the owner of the wind plant paid more in surcharges than what they received for the electricity. (This is possible, because the operator of the wind power plant over-schedules its production based on wind forecasts by the OMSZ. So the surcharge based on the one kWh produced that day can be a multiple of the 5 HUF/kWh.)

The National Meteorological Service cannot give predictions that are precise enough even to count hourly averages. The prediction only tells what the wind speed is expected to be in the first minute of every hour. This is what we should base a 15 minute energy production schedule on. In Western Europe the transmission system operator gets a 3 hour prediction from meteorologists, which is very precise and sufficient for regulating"

(Zöldtech, 2008)

One expert commented on this potentially impossible condition saying that the lenient behaviour of the MEH was much more effective than what would have happened if they had tried to get the power plant operators to obey the requirements of the MAVIR.

The impossible requirements resulting from different legal interpretations and the lenient behaviour of the monitoring authority is unsustainable in the long run, and results in a situation with increased corruption risks because it increases corruption demand coming from clients (businesses).

Third: "If you want to surely win, you will not want any of the privileges I provide."

The capacity application running at the time of writing this study – regulated by the 33/2009. (VI. 30) KHEM decree⁷⁹ – includes the possibility of installing future wind power capacities and the terms and conditions of application in 2009. The expectations of market players are influenced by the unfavourable experiences of the past:

"The same will happen as it did two years ago. The aim is just a little different: steal everything while they still can." Mária Kovács

⁷⁹ See: http://energiaporta.hu/files/Magyar_Kozlony_09_0901_szeleromuparkok_palyaztatasi_rend_758- 764.pdf



The regulation of the new quota allocation sorts the applicants by how much they are willing to give up of the KÁT (compulsory feed-in tariff) subsidies:

- 15. § (1) The applicants passing the qualifying phase are asked by the Office to submit a quote on the compulsory feed-in price (not higher than what legislation prescribes), on the period of compulsory feed-in and on the yearly amount of electricity supplied within the framework of compulsory feed-in, in 8 working days.
- (2) In the case of missing the deadline according to paragraph (1) there is no place for verification.
- (3) In the course of evaluating the application based on this decree the Office takes into consideration the demanded compulsory feed-in price (not higher than is prescribed in legislation, broken down by zone times), the time period demanded for the compulsory feed-in and the yearly amount of electricity received in the framework of compulsory feed-in.

(33/2009. (VI. 30.) KHEM decree)

It also means that the more the applicants go below the feed-in price previously guaranteed for them by the government, the more chance they will have to win. Those who totally give this up will surely get the demanded quantity of quotas.

"...this cannot be made economic. I wouldn't be surprised if they changed it with a modification of a decree sometime, and brought back the privileged into the scope of the compulsory feed-in tariff (...) and again, there is no mention of any obligation of instalment." László Nagy

The above regulation initiative is difficult to argue for. The government wishes to stimulate the spread of renewable energy production and thus prescribes a compulsory price considerably higher than in the market for implementers and operators of such power plant projects – then seeing that the rent is too attractive for the businesses, it introduces ad-hoc administrative barriers for those who submit applications for more projects than expected. However, the interest of the investors does not decrease, and since the proportion of renewables – including wind – has to be increased in energy production according to EU commitments, it issues new applications. In this application it prefers projects which ask for less of the otherwise due subsidies provided by the government (compulsory feed-in tariffs).

It does all this while it is continually increasing the share of non-renewable energy production making a profit of the compulsory feed-in tariff system – co-generation plants -, which thus acquired about 44 billion HUF of subsidies in 2009, 80 which will be supplemented by another 76 billion at 2009 prices until 2015, according to the MEH. This is not "free money", not EU subsidies but the extra burden, or loss of the victims of rent-seeking – including different groups of consumers.

The government's aim with this regulation is an enigma.

⁸⁰ MEH: Information on the prolongation of compulsory feed-in, 12 December, 2009 See: http://www.eh.gov.hu/gcpdocs/200912/20091219 kat hosszabbitas honlapra 50.pdf



4. GENERAL LESSONS

"Limited knowledge of public affairs explains the effectiveness of lobbyists... If every citizen collected and compiled all worthwhile information, then they would not be swayed by advertisements and other influential tools. Were citizens well-informed, elected representatives would not have to endure lobbyists coaxing, because voters would later know their interests had been thwarted and the unreliable representative would not be re-elected. Just as lobbyists provide collective goods to the interest groups gathered around particular interests, the effectiveness of lobbying is explained by the imperfect knowledge of citizens. This stems mainly from the fact that the calculations and information on collective goods also constitute a collective good."

Mancur Olson (1987 [1982)]: 57)

1. Why is governmental intervention essential?

Since the electricity market is characterised in several areas by natural monopolies (network grids, cross border regions, capacities, raw resources used in energy production, in certain cases investments by energy producers) state regulation is necessary to some degree. Without state regulation this market would not be capable of efficient resource-allocation and you would have to consider market failure.

Increased governmental regulation results in the greater possibility of governmental shortcomings compared to other markets where less governmental regulation is needed less. This is not unique to Hungary, but rather characteristic of the energy markets of certain countries.

2. Why are there favourable conditions for rent-seeking and corruption?

Electric energy markets, because of their very nature provide the perfect conditions for rent-seeking and corruption. The following factors increase the likelihood of rent-seeking. (Olson, 1987; Besley, 2006.)

a) Few sellers

On the seller's side rent-seeking is worth it to one player even if two or three strategic players control the majority of energy production and the one begins rent-seeking and the others do not. Therefore, on the seller's side there is no need for a coalition to carry out successful rent-seeking. However, if it were important to set up such a coalition it would be quite simple because of the low number of players and the transaction costs would be low.



b) Many buyers

In contrast with the seller's side, the buyer's side has many players: public consumers, businesses, private homes. This results in two things: losses caused by rent-seeking (higher price) are distributed between many players on the seller's side who barely notice the increased extra burden (b1); and in the case of many sellers it is difficult to organise anti-lobbyists that can effectively counter the behaviour of rent-seekers (b2).

b1) Average loss per buyer is minimal

Increased costs due to rent-seeking are distributed among many buyers (customers), who barely, if at all, notice the increase. The same is true of decision makers who, in the end, offer opportunities for rent-seeking behaviour:

"John, we're only talking about a few pennies. This decision will only increase electricity by a few pennies"

Naturally, a "few pennies" built into the prices results in a substantial increase on the other (buyer) side and can reach tens or even a hundred billion Forints annually.

b2) High transaction costs of establishing an anti-lobby

Another factor is the difficulty in establishing an anti-lobby. Such a group would be capable of countering rent-seeking and ensuring that allocation takes place according to optimal social welfare levels. However, organising such a pressure group is extremely expensive due to the high number of players and when such groups are successfully established the costs nearly always surpass the benefits that organising can bring. (Besley, 2006.) What's more, this is a typical collective action problem, one which, according to Olson's Classic Logic, dooms action to failure. (Olson, 1965) Organisers of anti-lobby groups would be acting rationally if they actual gave up organising. Of course, it is possible that a few altruists will organise anti-lobby groups, however the decision to carry out such actions go beyond financial gains; usually other political or ethical factors are taken into consideration.

c) Information asymmetry

Although electricity is a homogeneous product, production technology and distribution are quite complex processes. Furthermore, electricity is either unstorable or can only be stored at a very high \cos^{81} : the prevailing supply should basically match the prevailing demand – which demands complex processes for ensuring system maintenance, make it crucial that important technical parameters are met and make maintaining the prevailing balance a major priority. These complex conditions and processes result in greater than normal information asymmetry between electricity producers, electricity system operators, site operators, and those making decisions about energy production and development and, finally, the customers effected by whatever decision is taken.

Since creating and maintaining information asymmetry is of seminal importance to all rent-seeking lobby groups (Olson, 1987; Olson, 1997), the electricity market, where information asymmetry stems directly from the technical conditions of the market, is particularly favourable for rent-seeking.

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One solution would be the so-called pump energy storage power plants (SZET). The main idea of SZET is water reservoirs, which are created on top of a high mountain and in the valley below it. So called "valley bridges" can be used in sections, when electricity usage is low (typically at night), water from the lower reservoirs is pumped out using cheaper electricity to the higher reservoir, then in peak periods when electricity usage is high (typically in the daytime), the water is sent down over turbines, creating electricity. For economic feasibility studies on SZET in Hungary see: Kiss A. et al. (2008).



3. In the case of corruption, the risk of getting caught is low, corruption profits are high and transaction costs are low.

It is a fact that corruption goes largely unnoticed. Since corrupt transactions are the result of expensive and/or risky preparation processes, corrupt bureaucrats and politicians are wise if they assume costs of creating corruption as constant – offering corruption advantages with transactions for which high profits are expected, that is, the maximum expected corrupt transaction profit. Then the corruption profits which were merely a few thousandths of the original transaction can turn out to be ten or even a hundred million HUF. Furthermore, corrupt bureaucrats and politicians are involved in corrupt transactions where both the risk of getting caught and the costs of corruption can be kept to a minimum.

The electricity market is perhaps more attractive to corrupt politicians and bureaucrats looking to maximize profit from corruption than other markets, as particular regulatory decisions influence the distribution of vast sums of money. This is the place to offer corrupt services, rather than in other markets. Observations by Hungarian corporate leaders attest to this:

"Corruption is there where the big money is."

(Szántó-Tóth, 2008)

What's more, the risk of being caught in corrupt dealings is lower on the energy market and within this even lower on the electricity market, for two reasons.

Firstly, the existence of rent-seeking lobby groups and their expected future activity guarantees that they, as a partner in corruption, are not going to "blow the whistle" on a deal – that is, corrupt services can be offered here with less risk than in such cases where the corrupt transaction happens in a single meeting between the seller and the buyer. That is, those involved meet only for the corrupt transaction and neither before, nor after it.

This fact, as well as reducing the possibility of being caught, directly decreases the corruption transaction costs too: if the parties involved in corruption meet regularly, have a close, personal relationship, then the transaction preparation costs will be minimal.

Secondly, as we saw above in the case of rent-seeking, the vast amounts of information basically offer low-risk, "cheap" opportunities for corruption on a platter. Investigating corrupt transactions or the suspicious nature of a decision on the market is incredibly difficult if the original transaction, where corruption can be established, involves complex processes, the understanding of which require special skills and technical knowledge. Very few people have the knowledge necessary to understand the decisions taken and those that have this knowledge are either the corrupt decision makers or the experts hired by the lobby groups. Independent experts invest substantial sums in their training and education, therefore very few are willing to use their knowledge of the electricity markets to investigate the decisions made there and the conditions of transactions and the expected results of possible corruption. With this, the circle draws to a close.

4. Lack of clear governmental intentions

A lack of a clear and consistent governmental strategy was characteristic of the regulation of the electricity market in Hungary between 2003 and 2009. It is not as if there were no wide-reaching energy policy strategies or the analysis of the required background had not been worked out and debated by experts in the field — it's just that decisions were later made which went against the principles in these. Governments, one after the other, made their decisions either fit into different



strategic concepts, without defining clear, well founded energy market strategies, or certain decisions were made for which we have no idea what strategies they adhere to. Research shows that this observation is the general experience and common knowledge of the market players. If this is the case then this will have two direct results: it causes uncertainty in investors wanting to join the market (a), and increases the risks of both rent-seeking and corruption, as it increases the difficulty of assessing certain governmental decisions (b).

a) Uncertainty for those wanting to join the market

The lack of a concept adhered to by the government, and the contradiction between perceived concepts behind certain decisions results in great uncertainty for those wishing to enter the electricity market and within this investors considering renewable energy production. After assessing the risks of investment it becomes obvious that they calculate the uncertainty coming from the government's side and 'price' it among the costs of their future investments. This uncertain institutional – regulatory environment causes a direct decrease in social welfare by scaring away a segment of potential investors and increases costs to investments in the electricity market.

Besides this, the lack of regulatory transparency encourages guesswork amongst the market players and strengthens or upholds opinions which have no realistic basis. One interviewee mentioned the following case:

"Today there is no clear goal in energy policy; rather policy is shaped by recommendations made by the Prime Minister's Office in compliance with the interests of lobby groups. For example, the amendment to the compulsory feed-in tariff decree: the conditions listed in the Hungarian Official Journal were modified in the next edition because there had been a "typographical error," It was pressure from lobby groups that caused the change. That typo cost 60 billion Forints." István Balogh

We combed through the electricity market regulations from 2001–2009 (laws, decrees) and we did not find any mention of the regulation discussed above or to the typographical error.

b) It can cause difficulties assessing certain regulatory decisions

Were there a clear and manifest government concept it would be rather easy to determine whether a decision meets or doesn't meet certain criteria. Should an 'outlier' decision be made, then the question would arise of what was behind it, or what lobby groups had diverted the government away from its original, published policy, which it had followed until then. That is, rent-seeking would become obvious and stand out immediately in the light of a consistent government strategy. It would even be clear in cases where the actual governmental concept were a product of certain lobby group rent-seekers. It would be the concept itself that gives it away.

If there is no governmental concept, or if the government habitually ignores its own already accepted concept, this will be beneficial for rent-seeking and corrupt transactions. Then it cannot be judged a priori what lay behind a given decision or what interest groups had influence, if any, as there are numerous concepts behind every decision, or behind certain decisions different concepts can be supposed. The lack of clear governmental intent and consistent action can increase the possibility of rent-seeking and corruption. The first because it increases difficulties in uncovering rent-seeking and in establishing possible anti-lobby groups. The second because it decreases the likelihood of discovering corruption and thus the risk of being caught.



5. Difficulties in accessing public data, information, secrecy

One of the conditions for fighting rent-seeking and corruption is that the analyses and calculations upon which governmental decisions are taken be made public (if they even exist), as should data pertaining to the effects and consequences. Both sources of information are funded by the state and are public goods, for they assist decision taking which in the given country changes the distribution of goods between groups of tax payers and have an effect on the prosperity of groups of tax payers. They are public goods in the sense that nobody can be excluded from them and if anybody uses them they should not exclude others from use, or decrease access to them by others.

This current research discovered that in Hungary the availability of data and background analysis to the public, which can be defined as public goods, was compromised several times in the case of electricity-market regulation. ⁸² In this regard electric energy regulation does not differ from general practice in Hungary. Not only were impact studies upon which certain government decisions were taken not made public, neither were the consequences of government decisions made public. The government does not pay enough attention to collecting such data with which to gauge the expected or actual effect of decisions on various groups of market players, or, if this data exists their being made public is not guaranteed.

Data on public affairs can be made public in one of two ways. 83 Those requesting it may receive it from the relevant bureaucrats or institutions (passive freedom of information), or the given institute, without any prior request makes them public, thus anybody can access them (active freedom of information). (Sólyom, 1988; TASZ, é.n.; Schiffer, 2009.) In the first case the main thing is that the information is not made public at first, even though it exists and anybody can access it upon request. That is, the rule of thumb is that they only provide information if it is requested. In the second case the rule of thumb is that the information is made public to all, no request necessary. There is yet one more difference between the two methods from the point of view of our topic. In the first case those requesting information have quite high transaction costs in order to access the information. (They must determine whether the information actually exists, determine whom to request the information from and how to request it, as well as beginning the procedure). In the second case the data access transaction costs are minimal.

The first method, passive freedom of information, is central to Hungarian governmental behaviour regarding public information and that related to the electricity-market. Only on the rare occasion and as an exception to the rule can you see consistent behaviour pertaining to the guaranteeing of active freedom of information (see: publication of information by the Hungarian Competition Authority).

This situation really makes it more difficult to access the information and studies needed to make decisions, and to obtain information on the consequences of making these decisions and to conduct studies relevant to them. This way, it contributes to the success of rent-seeking and to the increase of corruption risks by decreasing the chance of being discovered.

⁸² We are talking about analysis of the results of regulatory steps in the electricity market and the expected social welfare effect within an economics framework, using empirical tools taking the expected reactions of market players. We are also referring to analysis of the actual effect of regulatory techniques established using the same points of view and with similar theoretical and empirical consequences. A larger area, for example, the publicity of studies establishing governmental energy policy strategy is a completely different question. In the latter how the Hungarian energy market supervisor, then the ministry (Ministry of Finance and Transportation) informed the public can be used as a positive role model for other ministries and regulatory agencies, after the background analysis of all energy market strategies to be worked out were made public and opened for discussion on the Internet (see http://www.khem.gov.hu/feladataink/energetika/strategia/energiapolitika/energipol.html).

⁸³ Here we are not dealing with the problem of pricing that occurs when accessing public data, that is public administration institutes as data owners making information sources available with certain conditions (for example a university or research institute job, a PhD, etc.) and with set prices. We take the price of background analysis and publication of information as zero. For more on this problem and the detailed – via several international and domestic examples - analysis of the situation of Hungary see Cseres–Gergely–Csorba, 2006.



6. The legislative, decision preparation process is not clearly regulated and common law practices pertaining thereto are often compromised

The legislation process pertaining to the electricity-market is not clear, not only to the outsider but often also to those members of the institution who create the rules, and this takes place despite set regulations. There have been numerous occasions where despite legal obligations, in the preparation of a decision to be taken on energy markets one governmental agency purposely did not include another, relevant agency in the work because it was supposed that the latter would hold a different opinion in respect of the particular decision.

Time is always a problematic factor during the preparation of regulation and legislation and thus ad hoc solutions are often applied. Expert opinions are only used in the early preparatory period, and rarely when evaluating the solutions preferred by certain politicians, or in amendments. On more than one occasion during legislation there was no attempt to even uphold the pretence of professionalism and basically no opportunity for professional opinion is afforded, making a mockery of the process and those participating in it (for example over 200 amendment propositions on the expected economic impact in one night).

The irregularities in the legislative process ensure that rent-seeking lobby groups have the opportunity during governmental (ministerial) talks to be heard – and, if this is unsuccessful, upon the bills being submitted to Parliament, the MPs can have their ideas heard basically with no professional restrain whatsoever, by submitting amendment bills.

Hence, the risk of corruption also increases if the legislative process is not predictable to those persons involved in it, or if the uncertainty related to the negotiations becomes integral to the regulation process. Uncertainties showing up in the middle of the legislative preparatory process afford a variety of corruption services. If the legislative process can be postponed because of uncertainties and the lack of transparency of decisions then you can ask for a fee for your services, if things need speeded up "manually" this also incurs a fee.

7. Not taking corruption risks into consideration

Governmental activities go hand in hand with corruption risks; even the given government is not willing to acknowledge this. ("There's no corruption here!"). Governments set up investment and development programmes, put out calls for government purchases, prepare legislation and submit bills to parliament, maintain supervising agencies, etc. Corruption risk is present to some degree in the above activities and in each country to varying degrees. Certain regulatory and institutional conditions can help deter these corruption transactions. However, only on the rarest of occasions can they be prevented completely.

In addition to taking the above into consideration it is interesting that while carrying out our study, when we examined the regulation of the electricity-market not once did the idea of assessing the risk of corruption related to the various decision alternatives come up⁸⁴. As if this risk does not exist in Hungary!

Failure to assess these risks – which is generally true of the behaviour of post-communist Hungarian governments regarding corruption – is capable of playing a more significant role on the electricity market, where corruption risks are already greater than other markets.

⁸⁴ There has only been one such case to date in Hungary in public procurement. In this topic GKI Gazdaságkutató Zrt carried out a study in 2008–2009 for the Public Procurement Committee (KT). Interestingly, while according to the contract the deadline to submit the study was July 15, 2009, (see paragraphs 2.3. and 6.4.

http://www.kozbeszerzes.hu/static/uploaded/document/Vallalkozasi_szerzodesmodosaC3%ADtas_GKI_2008_oktober.pdf) and this manuscript was completed on January 03, 2010, the study has never been made public. KT has not given any explanation as to why this is so. However, there have been positive developments; it is possible to know the history of the contract due to methods used by KT: the call for tenders and the signed contract and modifications thereto can be found on the KT homepage (http://www.kozbeszerzes.hu/nid/kozerdekuAdatok2).



8. Emergence of corruption risk at the legislative level

According to Hungarian empirical research (Szántó-Tóth, 2008 and Szántó-Tóth-Varga, 2009) the various forms of corruption have emerged to the greatest degree in the following areas: government procurement (a); issuing permits (b); disregard for negative consequences of monitoring (c); state financial support, EU tenders (d); research also shows that the since the year 2000, signs showing that corruption has become institutionalized have become clearer: in contrast with two-party, simple corruption transactions, the incidence of multi-party, organised, inter-linked, same suspect, repetitive corruption transactions have increased. In addition to local governments and the police force, suspicion of corrupt deals has emerged and become public concerning ministries and governmental agencies with nation-wide jurisdiction.

According to one result of this current research the risk of corruption has to be taken into consideration at the legislative level as well. It is not our task to investigate specific and possible cases – merely to raise awareness: certain institutional and regulatory conditions result in definitive behaviour on the part of market players and legislators and these conditions aid the emergence of corruption transactions. From this point of view, we cannot rely on the hypothesis of the *benevolent*, naive legislator keeping an eye on the public good. ⁸⁵ It is prudent to assume that legislators, like economic players, are profit maximalists. (Downs, 1957.) In their case moral risk is possible: after they have been elected their attitude changes compared to before elections. If, according to expectations corrupt behaviour will not influence their chances of re-election, then it is worth it for them to be corrupt.

The general characteristics of the electricity market, the high degree of concentration on the production side of the Hungarian market, the uncertainties created by the behaviour of Hungarian regulators and the government and the applied legislative methods all indicate that lobby groups and coalitions can play a serious role in the legislation, regulation and procedures that effect them, and that their activities meet the expectations of one segment of legislators.

It is the existence of government failure irrespective of electricity market regulation that brings about corruption risks at the legislative level in Hungary. Regulations and laws pertaining to Hungarian political party and campaign finance are antiquated; the relaxation of contradictions existing between law-abiding behaviour and actual political party financing activity has been to the detriment of law abiding behaviour. This could be behind the appearance of corruption risks at the government level. This results in significant corruption being offered on other markets.

Rent-seeking and corruption no longer only function independently of each other, but rather, they operate as interrelated functions of each other. If rent-seeking lobby groups "write the laws", then legislators have reason to ask for something in exchange. In fact, the size of the profit makes it possible for the rent-seeker to secure enough corruption profits for corrupt politicians.

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⁸⁵ See Szántó's (2009) analysis in which he examines the relationship between contra selection and moral risk pertaining to political players.



Therefore, the more jumbled the legislative process, the greater the likelihood of corruption risks appearing during the legislatory process, allowing politicians greater autonomy; the less corrupt behaviour effects the chances of defeat in re-election, the more the politicians become prisoners of rent-seeking lobby groups. Szántó (2009) pointed this out, while stressing that for politicians corruption itself works as a self-empowering process: if politicians become corrupt, later they will be more likely to be so again rather than law-abiding. The more time spent in power, the greater the temptation of corruption⁸⁶.

9. Government failures are predestined

Legislation (1987 Law XI. on law-making)⁸⁷ regarding law-making covering the period investigated (2003–2009), which is still current today, is completely inadequate as a regulatory framework to contribute to creating a rational economic policy that increases social welfare. It is not inadequate merely in a legal and constitutional sense, but also from the point of view of effective governance. Amongst other things, this is because it does not legislate for the pre and post fiscal evaluation of economic legislation or governmental decisions, nor the making public of impact studies during this decision and preparation period (see: 1987. year XI. law. 18. §.(1); 44. §. and 45. §.),88 therefore such investigations are routinely simply not carried out, or if they are, then the results are routinely not made public.

We could not find – apart from a few examples – preliminary impact studies into electricity market regulation that had been ordered by the government, nor analysis of the actual reactions of economic actors or the economic effects of regulation. The exception to this, amongst the state administrative bodies and ministries, was the Hungarian Competition Authority's (GVH, 2006) sectoral investigation. Non-governmental research centres have published several relevant investigations, however, only a few were carried out at the request of the government. Of these, the analysis carried out by the BCE Regional Research Centre (REKK), as well as some studies by Kopint-Tárki and the MTA KTI deal with the economic analysis of the expected and actual effects of certain regulatory alternatives.89 With this the Hungarian government not only increased the possibility for rent-seeking and corruption due to the fore-mentioned factors, but independently of this assisted by basically encoding the occurrence of government failure in its regulatory decisions.

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⁸⁶ "If moral risk brings about corruption and rent-seeking and becomes a political problem, then they will be closely linked with three important characteristics of the representation system, political power and extra profit and the extent thereof, as well as the amount of time spent in power. In connection with this we can determine three empirical hypothesis: 1, the greater discretion power a politician has the more daring he will be when using political power for private gain. 2, The more advantageous possibilities offered by political power to rent-seeking, the greater the competition will be for political positions. 3, The longer time politicians spend in power, the greater the problem of corruption stemming from moral risk can be. The basic cause of this is that if a politician is shady for him the road back to honest politics is difficult. With time even a good politician may become corrupt if he cannot resist temptation, while corrupt politicians sink deeper and deeper in the swamp of rent-seeking. This is best reason for placing strict limits on the length of terms in office, hence avoiding the establishment of unwanted effects which lead to the general erosion of transparency and accountability in a democratic political system.

⁸⁷ See: http://net.jogtar.hu/jr/gen/getdoc2.cgi?dbnum=1&docid=98700011.TV&cel=P%282%29. This law was rescinded the Constitutional Court on legal technicalities on December 14, 2009.

^{3. 3. \$\}text{\figs}\$ (1) Before creating the legislation – relying on results of science – the social-economic relations to be regulated have to be analysed, and so does the fulfilment of citizens rights and duties, the possibilities of resolving conflict and the possible effects of regulation and the conditions of realisation. Legislators have to be informed about this." Also, "44. \$\text{\tilde{A}}\$ Legislators and the executive have to follow and take into consideration the effects of the realisation of the legislation, they have to explore the conditions that hinder their fulfilment and have to make use of their experience in legislation. 45. \$\tilde{A}\$ (1) It is the task of the relevant Minister to keep examining the realisation of legislation – involving other ministers and the leaders of organisations with a national scope, and to take the necessary measures according to the result of the examination. This obligation does not affect the power of the chair of the supreme court, the public prosecutor and the chair of the People's Central Monitoring Committee . (2) The relevant Minister informs the Justice Minister about the realisation of legislation during the preparation of legislation and during the preparation of legislative programme, ."

⁸⁹ See, among others Tóth A.I.(2006), Paizs (2006), Páil (2007), Paizs-Sugár-Tóth (2007), Kaderják-Paizs (2008), Kis et al. (2008), and Kopint-Tárki (2007) Ács Valentinyi-Kis (2008).



Rent-seeking and corruption in themselves increase the likelihood of government failure rather than the avoidance of it. Both phenomenon are considered as causes of government failure. (Besley, 2006.) After all, it is difficult to imagine an altruistic rent-seeker, or a private person who corrupts legislators or bureaucrats, or an entrepreneur, who would keep in mind the goal of maximising social welfare and strive to achieve this while committing an act of corruption, or that rent-seeking or corrupt activity unwillingly results in increased social welfare.