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## **KEY ISSUES OF ELECTRICITY MARKET LIBERALISATION**

**GAZDASÁGI VERSENYHIVATAL**

**July, 1999**



**KEY ISSUES OF ELECTRICITY MARKET LIBERALISATION:**

**THE COMPETITION POLICY POSITION  
OF THE  
HUNGARIAN COMPETITION AUTHORITY**

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**Gazdasági Versenyhivatal**

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**Key Issues of Electricity Market Liberalisation: The Competition Policy Position of the Hungarian Competition Authority**

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Editor in charge: Nagy Zoltán

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The prevailing of any competition policy position of the GVH is determined by the opportunities provided by competition law.

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## 1. Introduction

This paper describes the position of the Office of Economic Competition (OEC) on the electricity sector and the regulation thereof. In accordance with its competence and responsibilities, the OEC position **focuses on competition policy**. At the same time the reform of the sector and of regulation is geared towards the introduction of competition and the regulation of activities constituting natural monopolies so that greater efficiency pressures can be exerted; in other words, the transformation is driven by competition considerations. Thus competition policy considerations are fundamentally important.

Below we set forth OEC's comments related to the necessary measures and the new model. We do not intend to imply that the OEC would be able to design a new model or conception for the electricity sector; this is not the agency's job either. The OEC merely undertakes to analyse and assess the various proposals from a competition policy perspective and to highlight the conditions necessary for the introduction of competition. Naturally this role is ever so important when the introduction of competition is at the heart of reforms.

There are numerous issues arising during the sectoral reform that require decisions; for instance, whether competition should be introduced in the field of natural monopolies (e.g. in the form of concession tenders), whether further privatisation is desirable, whether the content of supply obligation should change, whether distance dependent or other electricity transmission tariffs should be introduced, whether power plants should continue to be established based on capacity tenders or a licensing procedure should be adopted, or whether participation in the electricity pool should be mandatory or optional, whether the total consumption of multi-site undertakings should be considered as a parameter to qualify eligible consumers. These issues are also relevant to the introduction of competition because depending on the answer to some of them, the maintenance or introduction of competition and the job of the competition authority and of the regulator may be easier or more difficult. In the present phase of transformation we deem it premature to address such issues – though we appreciate their importance and consider the principles outlined below to be applicable to them as well–; instead, we concentrate on the more fundamental and policy level issues pertaining to the introduction of competition.

The OEC position covers the **objectives** of transformation, the **tools** necessary for attaining them and the relevant **principles**. We separately address the industry structure related **preconditions** of attaining such goals, and of ensuring the operability of tools required for the success of the effort. In connection with these conditions we must unavoidably address in detail some of the issues that arose during technical discussions and some other questions arising as a matter of course (in the Appendix); finally we shall touch upon some other important issues. First of all, however, we will briefly outline the background to the reform of the sector.

### **International context, experiences**

In the last decades a number of countries have embarked upon the transformation of the energy sector and within it, the electricity sector. Reforms have been introduced in the US, Australia and in Europe. In Europe the United Kingdom pioneered the process, but similar reforms were adopted in the Nordic countries, in Spain and in other countries as well. On the European Community level the need for reform has also been expressed, set out in the EU Directive on the liberalisation of the electricity market. This Directive is binding for Member States (in respect of future reforms), while it also affected the national reforms introduced prior to the adoption of the Directive.



These examples for the transformation of the electricity sector are of course different in their details as each country had, and still has, different characteristics, but they also show some important **common features**.

Typically, reforms have been implemented to **improve the competitive position** of the national economy or the economy as a whole. The energy sector is a strategic industry the product of which is used by almost every other sector of the economy, thus the price of the input it supplies to others affects the cost levels, performance and competitiveness of all the other sectors as well.

State interference with prices on its own does not offer a solution because it either requires price subsidisation (which is just another form of burden on the economy because resources used towards subsidies must be reallocated from somewhere else), or it leads to worsening operating conditions for the electricity sector and the declining of the industry (which causes long term damage in the national economy through the postponement or omission of capital investments, a suboptimal rate of development and the concomitant technical and efficiency lags and reduced security). The real solution must be in the improved efficiency of the sector, or the enforcement thereof.

The key elements of transformation are privatisation, the introduction of competition, the separation of activities suitable for a competitive market from those constituting natural monopolies, the introduction of regulations or their amendment in accordance with the new environment. In light of experiences and to the best of our current knowledge, the introduction of competition is the crucial factor: competition is most conducive to efficiency pressures and it also ensures that the increased efficiency does not (exclusively) result in increased profits; the other elements serve to ensure the successful implementation of this.

This has not always been the mainstream view.. In Europe the traditional response to market failures in public utilities, which were attributable to the existence of natural monopolies and to other social objectives (reliability, universal service provision criteria, large scale investment needs), was state ownership and the concomitant relatively lenient regulation. The unsustainability of this approach became evident in the eighties-nineties as it failed to attain its objectives and the ever more severe problems threatened the competitiveness of the national economy. In case of the United Kingdom, a pioneer of European energy sector reforms, the conservative government considered privatisation to be the key to efficiency increase and reform, and a strict regulatory system and the related institutions were established “only” because the replacement of a state monopoly, considered easier to control, with a private monopoly appeared to give rise to concerns. The global privatisation drive did yield some results, while it became increasingly clear that without regulations protecting the interest of competition and of consumers privatisation is a “one-armed giant”, and that designing appropriate regulations is far from easy: wherever possible, competition should be introduced because “competition is the best regulator”.

When the Bangemann Report prepared in the EU pointed out the considerable competitive disadvantages of the Community and stated that effective measures were needed so that the Community is not left behind in global competition, it became clear that as part of the right response the electricity sector must be made more efficient and that this must be based on the introduction of competition. As a result, professional preparation for market liberalisation started; initially more radical concepts – promoting the introduction of competition with powerful tools, with more certainty and at greater speed – dominated, then a political compromise between the Member States lead to a relatively modest result. In light of this, the result may be surprising: in February 1999, when according to the aforementioned EU Directive an at least 25% market liberalisation should have been achieved, the average level of

liberalisation on the EU market was above 60%, a level not made mandatory by the directive even for 2007.

In order for the introduction of competition to be realistic in the electricity sector, the sector itself needs to be **reformed**. Under the present technological conditions there are activities within the electricity sector that constitute natural monopolies (transmission, system control), where market competition is not an option (though other, less intense versions of competition are possible), while the other activities (generation, distribution (including service provision)) can operate in a competitive environment. Thus different rules are necessary in the former (non-competitive) field than in the latter (competitive) area; furthermore, the distortion or restraint of competition in the second area by the first must be prevented. For both purposes the **activities** must be **separated carefully and definitively**. In non-competitive areas regulation must on the one hand accomplish the functions of traditional natural monopoly regulation, and on the other hand prevent the extension of market power to competitive areas. In several countries this entailed the abolition of the regulatory functions of the traditional dominant actor, or their transfer to appropriate authorities; for instance, the regulation of access is typical.

International examples also show that the declaration of liberalisation and the **dismantling of legal barriers** to entry into competitive markets in themselves **do not result in competition**. Competition has structural prerequisites that need to be considered when making decision on the reform of the industry (separation of activities, a transmission and distribution tariff system promoting cross-border and domestic competition, moderate concentration on competitive markets), while on the other hand active government intervention may be needed in the transitory period between the first substantive steps of liberalisation and the evolution of effective competition so that the former monopoly cannot hinder or prevent the evolution of competition.

### **Background in Hungary**

The reform of the fully integrated model of the Hungarian electricity sector vested with official responsibilities, as formerly traditional in Europe, started a while ago; the present status of the sector is considerably closer to a competitive model than it was originally. Some power stations have been separated from the national high voltage network, a regulatory system has evolved (including the system of licensing and price regulation) which is controlled by regulator(s) rather than sectoral participants. Some of the companies have been privatised, which had controversial results for competition, while private investors continuously prepare their enterprises for future competition (by restructuring, the “introduction” of a market approach, cost cutting). The establishment and operation of the Hungarian Energy Authority has created the organisational framework for regulation. There are several actors present on the Hungarian market even if they do not compete with each other. The legislative framework adopted in 1994 would actually allow for somewhat more competition than what we have today (for instance, direct supply for own consumption).

However, the first real steps towards liberalisation are still ahead of us; the current operating model contains no competition (or, more precisely, only very limited forms of it are present in certain activities – e.g., capacity tenders). The various activities have not been separated; the regulatory authority is not totally independent of the industry; the regulatory independence of the Hungarian Energy Authority is not assured; price regulation does not operate adequately; market liberalisation is a task for the future (that is, currently there is no competition on any level of trade, or in generation; or rather, in the latter case, it exists only in a very indirect form). The whole of the sector works on the rationale of supply obligation. Liberalisation requires considerable transformation of the present structure. In a sense privatisation represented a move

towards market compatible arrangements, and it does have positive effects. However, we must also realise that the kind of privatisation that does not go hand in hand with the introduction of competition or of effective regulation has inherent dangers because the scope for government intervention is reduced while its necessity is not fully eliminated under such conditions. Thus significant changes are called for, but we have the foundations to build on.

## 2. Objectives

The key objective of the reform of the electricity sector and its regulation is to increase its efficiency and thus to improve the competitiveness of the Hungarian national economy. The electricity sector, as well as the whole energy sector and telecommunications, are strategic sectors the performance of which affects the performance of all the other sectors using their services or products. Therefore increasing the efficiency of the electricity sector is in the interest of the national economy as it brings about increased competitiveness for the whole national economy and a growth in consumer welfare.

Other objectives of the sectoral reform are also worth noting. Examples include compliance with EU criteria to facilitate accession, assuring the security of supply, enforcing environmental considerations as well as promoting energy efficiency and efficient energy use. These are also important objectives, which must be taken into account during the reform, but they are not the main reasons for the change.

The **objective of conformity with EU criteria** must not be compromised, and reform must undoubtedly result in a sector and a regulatory system satisfying these criteria. The EU criteria are not in conflict with the objective of efficiency and the improved competitive position of the national economy. The EU criteria are expressed in the Directive that was itself adopted as a response to the competitive problems of the Community after the EU recognised the role of the energy sector in improving competitiveness and the role of competition in forcing this sector to operate more efficiently.

The objective of the **security of supply** does not require the transformation of the system; this is an objective in the present system as well. In connection with the objective of the security of supply we must not forget that its meaning is different within the energy system of the Community: on the one hand, our accession in itself will significantly improve security, while the interpretation of the security of supply is different in a quasi autarchic electricity sector and in a system operating as part of a larger system. There is a potential consideration that increasing the safety of supply by greater diversification (reliance on several sources of supply or several primary fuels (i.e., not only the cheapest one)) would in turn increase costs and adversely affect competitiveness. However, if we approach the issue from the aspect of efficiency it becomes obvious that security of supply and efficiency do not work against each other: the security of supply is not worse in the case of an efficient system than in the case of an inefficient one.

The objective of **environmental protection** would not necessitate the reform of the system either. This objective may also give rise to the concern that it increases costs and thus worsens competitiveness. In reality, however, increased emphasis on environmental considerations highlights the significance of the effective operation of the electricity sector.

**Energy efficiency** and the increased effectiveness of energy consumption would also not require the transformation of the sector. This objective does not contradict the objective of efficiency either.

### 3. Tools

The primary objective (increasing competitiveness and efficiency) must be achieved with the following tools:

#### **Introduction of competition**

In areas where there is no competition (generation, distribution (including service provision)) and there are no theoretical obstacles to its operation, competition must be introduced. Competition is the best means of ensuring efficiency pressure, allocating resources and assuring optimum results for society. The primary tool for the introduction of competition is the elimination of administrative barriers to entry, the liberalisation of the market. A legislative environment must be devised where everyone who is willing to undertake business risk and has the necessary resources is essentially free to enter the market (build power plants, engage in trade and distribution) and to behave in accordance with market conditions. Market liberalisation necessarily entails the removal of administrative barriers to entry (or rather their significant weakening), and the elimination of price regulation and of the supply obligation for those opting to enter the market. In the above areas there is no justification for departure from the usual (market) operation of the economy, for the existence of exclusive rights, price control or other similar restraints. Of course this is not saying that no regulation whatsoever is needed. On the one hand, competitive markets are also governed rules, and on the other hand, the electricity industry is a special sector where special provisions as well as the supervision and the presence of the state are required. (In this respect the situation is comparable to that of financial institutions, which operate on a market basis and in a competitive manner, yet the government specifies, for instance, certain reserve requirements, limits their investment capabilities etc.) The regulation and price control of transmission, distribution and system operator is necessary even in a market environment.

#### **Formulation of effective regulations**

In areas where a natural monopoly exists (grid network – transmission, system operator – balancing), competition cannot be introduced. In such areas classic, but more efficient, natural monopoly regulation must be devised, which substitutes competition in assuring efficiency pressures, facilitating return on investment but preventing extra profits.

#### **The increased role of market mechanisms**

This tool and the introduction of competition are so closely related as to be practically inseparable. Essentially, government intervention must be limited in every respect and field to areas of the electricity sector where the market is unable to produce the desired results. In other words, everything that can be left to the market must be. This is not limited to the separation of competitive and non-competitive activities but is also manifested in the type of wholesale trade, in the degree and form of its government regulation (e.g. the dilemma of the mandatory versus voluntary electricity pool). In other words, this is a general deregulation approach.

#### **Prevention of market distortions**

Any situation where the competitive and non-competitive markets are interrelated holds the hazard of restrictions of competition. A typical example of this emerges in the electricity sector after liberalisation. The participants who are present in both types of market may be capable of employing certain **restrictive strategies** (access and the issue of cross subsidisation can be typical problems). To forestall such problems, the different activities must be separated from each other. **Separation** may occur on several levels/with several

techniques: the most consistent solution is total divestiture, the most lenient one is separation of cost accounting (unbundling). The different solutions can contribute to the prevention of market distortions at varying degrees (in certain cases control is merely relaxed, while in others the motivation for resorting to anticompetitive strategies is removed); accordingly, they express various levels of commitment by legislators to the introduction of competition.

### **Conditions of the evolution of effective competition beyond simple liberalisation**

The above are the necessary but not always sufficient conditions for the evolution of effective competition. Depending on the inherited market structure and entry conditions, the former dominant participant on its own or in combination with other incumbent firms (potentially in co-operation with each other) may be able to foreclose entry or reduce competition among themselves. The dismantling of legal barriers and the creation of minimum conditions in themselves do not result in real competition; this may also require active, sometimes constraining measures against the former monopoly (dominant actor) or the incumbent firms, as well as the facilitation of market entry. However, this must not entail helping inefficient entrants onto the market or forcing incumbent firms to operate inefficiently.

It is worth noting that foreign experiences show that in distribution (retail trade), if markets are made open liberalised to a sufficient degree (and not only in the legal sense, of course), the mere possibility of entry and the threat of potential competition is enough to introduce competitive results (noticeable price reductions). In other words, market shares do not change considerably, traditional participants do not lose significant markets, but the “price” to pay for this is better performance. This mechanism, which is reminiscent of the theory of contestable markets, however, is viable only if openness is actual and if the threat is credible.

Essentially, reform should not only allow competition but it should promote it. It is a cardinal issue in this respect also whether the government (and political) commitment to the introduction of a competitive model is firm and credible or wavering.

The various factors are interrelated as the main tool of improving efficiency and competitiveness is to make the sector competitive wherever possible (and to operate a substitute regulatory system where competition is not feasible). This is why liberalisation is necessary (because currently there is no competition even on potentially competitive markets), so that the market is allowed to decide all questions that it possibly can, and to eliminate structures through which the operation of non-competitive markets would otherwise hinder competition on competitive markets. This must be complemented with the regulation of natural monopolies. However, in a broader sense regulation is not intended only to substitute for competition but also to protect and promote competition in suitable areas.

### **The introduction of competition and other objectives**

The introduction of competition is compatible with the other objectives as well. In this context the issue of the **security of supply** is most relevant. Market based operation in itself does not undermine the security of supply. True, the scope for central planning and centrally organised intervention is reduced, and market type uncertainties emerge (business risk). At the same time, certain techniques will retain some degree of central planning, while market actors also have a number of tools even on a market basis that are meant to promote the security of supply and to manage business risks, while the state does not have to bear exclusive responsibility for all such

risks. The government considerations related to diversification can be enforced under market conditions as well; government intervention to enforce them can be implemented in a competitively neutral manner, in which case there is no conflict between considerations of competition policy and of the security of supply.

The same holds true for **environmental protection**. As shown by foreign examples one option is to give absolute priority, in the competition for capacity building or in the market competition between generating capacities, to power plants based on renewable or waste recycling fuels and to plants with combined heat and electricity generation capacities. If the extent of such preferences is relatively limited, competitive considerations would not be substantially compromised, and environmental considerations can also be enforced. Furthermore, there are other market compatible environmental economic solutions that can promote environmental considerations on a market basis.

Even though there is no inherent conflict between competition and these objectives, there is an opposite effect on **prices**. In the course of the reform the previously unrecognised costs and the costs attributable to the reform (potential higher level of diversification, environmental investments, elimination of cross subsidisation) lead to higher prices, while the introduction of competition is conducive to lower price levels. Due to their coincidence, the introduction of competition in Hungary, unlike in other countries, will probably not lead to a considerable price drop in nominal terms but to the much slower scale of price increases than would be necessary otherwise.

#### 4. Principles

In applying the tools for achieving the fundamental objective the following principles must be applied:

##### **The need to go beyond minimum EU expectations**

As mentioned above, the EU directives outline the same fundamental objective and set of tools as described in this paper while leaving substantial scope for decision makers as a result of the political compromise between member states. In the Hungarian environment EU criteria themselves do not provide adequate guarantees for the evolution of effective competition and the attainment of the fundamental objective. The minimum criteria must not be interpreted as a ceiling or the acceptance of a necessary evil. It is the **interest of the national economy** that reform goes beyond that minimum, as it does in many European countries. In view of the present extent of market liberalisation in Europe, at the time of accession, even if it happens at the earliest realistic date, most of the EU member states will already have an adjusted, established competitive model in operation. On the other hand, the contents of the Directive provide a useful framework, orientation and techniques that, together with other international examples, must be used during the reform.

##### **Non-discrimination**

Actors operating on the same market must be treated in a fundamentally equal manner, and should be made to satisfy the same expectations. This cannot always be achieved to the full due to the above considerations related to the creation of effective competition. However, wanton, marked or permanent asymmetry is clearly undesirable.

##### **Gradual approach**

Drastic liberalisation is undesirable. Consumers of electricity are highly diverse: most of the **large consumers** will be able to procure electricity, just like any other input, on a

commercial basis within a very short time; **households**, however, will be capable of the same only after a lengthy period of preparation. Manufacturing companies, especially large electricity consumers, have procurement organisations and experts, or even generate electricity themselves. Liberalisation will cause no problems or only minimum challenges to them. On the other hand, households or entities with only slightly greater consumption (schools, public institutions etc.) are unsophisticated consumers; furthermore, they are affected by electricity retail (distribution) rather than wholesale trade, the system of which they have to familiarise themselves with. For them liberalisation may be a real challenge, making it more difficult to make sense of the new environment (for instance, they will have to interpret the various retail offers). A gradual approach is more beneficial for the evolution of the commercial market as well, and allows for the utilisation of experiences, regulatory adjustments and feedback if necessary.

**Gradual liberalisation** means that an ever wider circle of consumers – the eligible consumers (initially only large consumers, then the smaller ones also) – may procure electricity from the competitive market. The liberalised market segment will gradually be expanded, while the “traditional” segment will gradually be reduced, and the two will coexist until the process is completed. There will be different rules in the former (free entry / free choice of supplier) than in the latter (supply obligation, price control, exclusive right).

Two potential misunderstandings must be cleared up: (1) In order for market liberalisation to be viable on any scale, **the whole system must be in place**. In other words, the necessary divestitures, separation of activities, control of access etc. must be implemented fully irrespective of the degree of liberalisation. (2) No gradualism is possible in generation or in wholesale trade. In these activities there is no legitimate need for the gradual introduction of competition (we are talking about professional entities), in this sense the creation of a dual market (or rather, dual/parallel vertical structures, two generation capacities, two wholesale trade structures side by side) would also give rise to serious competitive concerns, the resolution of which would require even stricter (possibly impracticable) segregation.

In addition, gradualism as a broad principle would also entail the **risk of restoration**, if it means something other than the staggered timing of access of consumer groups to the competitive market (which is incidentally an accepted practice in the sector).

## 5. Key issues I. - minimum criteria for the introduction of competition

Accordingly, the following minimum criteria for the introduction of competition can be established in the specific Hungarian environment:

### Separation of system operator

In the electricity sector system operator is a **natural monopoly** (no system can be managed from more than one place), which is crucial not only technically but also economically. If the system operator also has a stake in generation or distribution, the **danger** of discrimination and of **restricting competition on these markets** exists. This danger can be limited by behaviour control, which can be supplemented with provisions facilitating monitoring (unbundling), while the divestment of the activities, i.e. a structural arrangement may provide a real **safeguard**.

### Separation of the high voltage transmission network

The national high voltage transmission network is also a **natural monopoly**, which the actors of competitive markets must gain access to without discrimination to ensure the

normal operation of competition on these markets. The reasons for separation are the same as in the case of the separation of system control. Similar considerations are also applicable for the network of distributors.

### **Elimination of the wholesale monopoly**

Concurrently with the first substantive steps of liberalisation all wholesale monopoly rights must be abolished. In other words, liberalisation must be complete in the field of wholesale trade. Failing this, this activity, which is directly related to generation, would be split into two parts: a competitive and a non-competitive market. This is unjustifiable; in addition, there would be necessary links between the two markets operating side by side. In case of such a dual market (or rather dual/parallel vertical structures) the monopolist wholesaler of the non-competitive market would also be a participant on the competitive market (this would be impossible to prevent due to the characteristics of the sector), which would inevitably lead to the restriction of competition on the other market. This distortion is very difficult, in practice impossible, to prevent through regulation (e.g., it would entail the separation of the distribution activities of this participant on the two markets, which contradicts the underlying assumption).

### **Elimination of the import monopoly**

Concurrently with the first substantive steps of liberalisation all import related monopoly rights must be abolished. Import (foreign trade) is essentially part of wholesale trade and no participant should be allowed to have exclusive control over this important channel of supply because it would cause significant competitive distortions.

The elimination of import monopoly is not the same as total liberalisation of importation. **Import restrictions** may be permissible if justified, but they must be non discriminative, similarly to other import restrictions (e.g. customs tariffs). Naturally, for purposes of the potential restriction of importation trade policy and other commitments (EU) must be taken into consideration

We must also be aware that import and its possibility plays a significant role in **maintaining a competitive pressure**; this may be especially important in the case of Hungary (as in other markets) due to the size of the country and the horizontal structure (concentration) of the power generation sector.

### **Third party access to the network (TPA)**

Third party access to the transmission networks must be assured and access (as well as access prices) must be regulated. This issue has two aspects: (1) the operation of the network is a natural monopoly, i.e., a classic natural monopoly regulation is required; (2) if the total separation of the regional/local network currently owned by the distributors has not been completed, ensuring the access of competitors also serves to **prevent restrictive practices**. The first aspect highlights an important issue as in this element of the vertical structure only regulation could provide efficiency pressure. Still, it is because of the second aspect that provision for, and appropriate regulation of, access is indispensable for the introduction of competition. If the network has not been separated yet – and in case of the regional/local networks immediate separation is not necessarily possible – access becomes a key issue for competition.

The minimum criteria laid down here (of which three pertain to vertical relations, two to horizontal relations) are related primarily to the first (introduction of competition), the third



(leaving everything to the market as much as possible), and the fourth (prevention of market distortions) of the tools listed above. These measures are necessary so that liberalisation is not only a make believe but real competition can emerge. Otherwise competition will be nipped in the bud following liberalisation.

## **6. Key issues II.**

### **- important criteria for the evolution of effective competition**

There are some other criteria that are also important for the evolution of competition.

#### **Power generation structure should not be concentrated**

Providing competition is introduced and in theory there are no structural distorting barriers to competition in the generation sector (dual market (vertical structure), vertical integration with natural monopolies), issues pertaining to the classic operation of markets will come to the fore. As is known, in concentrated markets there is more probability for the existence of dominance and collusion between participants. This is also true in liberalised electricity markets: critics of the – otherwise successful – UK liberalisation often call attention to the fact that in the generation segment, made artificially concentrated in the course of privatisation, prices are significantly influenced not only by competition and the electricity pool but also by collusion, which is difficult to unveil. Thus the potential beneficial effects of competition cannot be realised. The structural conditions of competition include a decentralised market structure.

Naturally, in the Hungarian environment there are natural limitations to deconcentration (the participation of Paks in itself is enormous, economies of scale, size of the country), still, as far as possible the lowest level of concentration should be targeted in this sector.

#### **The distribution structure should not be concentrated**

The reasons are similar to what was explained in connection with the concentration of the generation sector, but the situation is somewhat different. Currently in Hungary local/regional networks and retail (distribution) both feature in the activities of distributors. Networks (regional/local) are natural monopolies, while retail itself is not.

It is to be expected that initially the **most important entrants** (thus the catalysts of competition) into **trade** and especially retail trade will be these distributors (Hungarian experience, sectoral experience, consumer relations, appropriate range of activities (billing, trading etc.)); they will penetrate each other's areas with their services, thus they are potential competitors. (Other entrants may also appear, such as the trading successor of Hungarian Electricity Works or other enterprises in the line infrastructure business (e.g. gas suppliers).

The regional/local **networks**, which constitute natural monopolies, will not be competitors to each other on the market; they will have to be regulated. From the **regulatory** perspective the number of entities to be regulated by the authority is also relevant (for instance, their costs can be compared when costs are reviewed (or even yardstick competition is a possibility – in this form of competition the regulator makes the regulated companies, among which no market competition is possible, compete indirectly through a regulatory arrangement); if the licence of a licensee must be revoked, this makes sense (and has credibility) only if the licence can be issued to someone else etc.). Thus from the

regulatory perspective there is some sort of competition even between these regional monopolies.

The two criteria set forth here (both relating to horizontal relations) pertain to the last of the aforementioned tools (creating the conditions of effective competition beyond mere liberalisation) and to the second one (formulation of effective regulation). These considerations must also be taken into account so that following real liberalisation no phenomena preventing or hindering the evolution of effective competition and no chronic antitrust or regulatory problems arise. In connection with both criteria the introduction of ceilings for take-overs and horizontal mergers should be considered to avoid excessive concentration. It should be noted that even though no further privatisation is on the agenda (especially not in the case of activities constituting natural monopolies), should the separated network or the electricity pool facilitating wholesale trade be privatised, shareholding limits would have to be set to prevent vertical integration.

## **7. Other important issues**

### **The institutional framework of regulation**

The reform must also encompass the institutional framework of regulation. A regulatory authority must be established that (1) is capable of enforcing regulations exerting efficiency pressure and preventing anticompetitive practices – and has the necessary legal standing, material and human resources; (2) is autonomous: it can make substantive decisions independently, finances its operation from its own revenues, and its staff is subject to strict conflict-of-interest rules; (3) is accountable: in the long term (but not in the short term) its operation can be affected by politics and economic policy; legal remedies are available against its decisions; its financial management is transparent; it is audited regularly and thoroughly; all its activities are subject to public control that are suitable for such control; (4) is compatible with other institutions with regulatory or competition policy responsibilities in terms of its institutional position, and is able to co-operate with such institutions both formally and informally.

The Hungarian Energy Authority already meets the above criteria to some extent, but further measures are necessary for it to act as a fully independent regulatory authority.

### **Future challenges: other network based industries and competition on the competitive market**

In the transitory period between market liberalisation and the evolution of effective competition, and even after such effective competition has evolved, the combined application of regulation and competition law is necessary; both the regulatory authority and the competition authority may – and indeed must – play a role in connection with competition in the sector. The details of the desirable division of labour and responsibilities and of co-operation have not been specified yet.

The various network industries (e.g. electricity, gas, telecommunication, railway, water) often raise similar competitive policy concerns in the field of market competition and regulation (e.g. insuring access), and similar regulatory tendencies are present (opening up the market, introduction of competition). Furthermore, a trend of convergence is emerging among network industries, meaning that the participants in various sectors enter other sectors as well after liberalisation (mostly telecommunication, but also gas retail trade); some of the current Hungarian telecommunication providers also came from other network industries.

All this raises the necessity that concepts should be designed and decisions made on regulation and its institutional system taking into consideration these developments in the medium term and, as much as possible, during the design of the new operating model.

### **Assuring disclosure and predictability**

The predictability of the regulatory environment is important for market actors in the network industries in general, and in the electricity sector in particular due to the prevalence of long term investment needs. This does not mean that the regulatory environment cannot be altered. However, changes must be predictable and gradual as much as possible. A demand for compensation may also arise; the more predictable the change, the less intensive and sizeable this demand. Thus it is in the interest of all participants (regulator and regulated alike) that the reform of the sector is announced in advance, the details, and even the concept, of the reform is disclosed as soon as the relevant decisions are made so that appropriate orientation is provided to the commercial sector.

## APPENDIX

### Issues and problems frequently arising in relation to the minimum criteria

Below we list a number of issues that have frequently arisen in our experience at professional discussions and that may lead to misunderstandings in connection with the introduction of competition, its effects and the consequences of the measures necessary for its introduction.

#### Stranded costs, long term agreements

Frequently quoted dangers of reform and liberalisation include stranded costs and long term power purchase agreements (PPAs).

In the current model the Hungarian Electricity Works (hereinafter: MVM) as a monopolist wholesaler purchases electricity under long term (20-30 year) agreements with power plants. If the market is liberalised and other, more competitive (cheaper) electricity appears on the market than the electricity produced by (some of ) the incumbent power plants, the future wholesaler MVM legal successor will be unable to purchase all the committed electricity at the original price; this is how stranded costs emerge. Producers could pass on such costs to the MVM successor pursuant to the agreements, which would eventually have to be covered by the state. Other mechanisms could also be implemented that would result in consumers or certain groups of consumers being billed for such costs.

Essentially, stranded costs are manifestations of the fact that in the past the **state assumed all risks** (including business risks) of the power plant constructors (through long term agreements). The issue of these costs is a real problem, and the best techniques of managing them must be identified (there are successful international examples available); in the course of this an incentive system to minimise these costs can, and must, be designed.

In connection with the management of stranded costs two fundamental factors must be remembered. First, stranded costs do not necessarily mean stranded capacities. If the market price is lower than the costs of an inefficient producer, closing down capacities and the assumption of all costs are not inevitable; it is sufficient for the producer to receive compensation for the price differential. The incentive arrangement is significant in this respect.

Second, stranded costs only seemingly arise due to the liberalisation, at the same time with it. In **reality stranded costs represent inefficient capacities**, which do not come about as a result of liberalisation – consumers are already paying for such cost in prices, under a different name –; it is the introduction of competition that will ensure that in future investors are motivated to establish competitive capacities and to bear the related business risks. In other words, reform does not generate stranded costs; instead, as opposed to the status quo, it makes them visible and also prevents their reoccurrence. This goes to show that stranded costs justify the sound, consistent and fast implementation of reform rather than its retardation.

#### The idea of a dual vertical structure

Another potential concern is that partial liberalisation (meaning some of the consumers being able to select freely their source of supply, while others staying in the traditional system) would result in the cream skimming of better sources of supply, thus those staying

in the system subject to public supply obligation would on the whole get more expensive electricity.

To forestall this, one potential solution could be for MVM to continue as the monopolist in the wholesale trade serving uneligible consumers (monopolist wholesaler), and to supply cheap electricity to such consumers from its own resources. According to this idea, MVM would also be present in the competitive wholesale trade supplying eligible consumers.

This solution is **unacceptable** for competition policy considerations; furthermore, a more pro-competitive solution is also available. The concern related to the aforementioned idea is the potential emergence of a privileged actor on the competitive market. This would be acceptable only if the competitive part were to be separated from the public service part of MVM, which goes beyond the framework of the original plan. Indeed, due to the characteristics of MVM such a solution would almost completely undermine competition, making liberalisation no more than an empty legal gesture, because the question then is what electricity would be traded on the competitive market.

Furthermore, in wholesale trade even a partial monopoly is unnecessary to protect unempowered consumers; on the contrary, competition must be “brought closer”. This can be achieved if the regional/local **distributors** who directly supply to these consumers **also qualify as eligible consumers**, thus they can gain access to more favourable sources, and if **their retail prices are regulated on a fairly low level**. This alternative solution could certainly protect small consumers while leaving more scope to competition.

### **Is the unbundling of activities constituting natural monopolies sufficient?**

It may be proposed that the requirement of non-discrimination and the unbundling (accounting separation) of activities is sufficient to dispel competition policy concerns. The objective of separating activities is to prevent the limitation of competition on competitive markets arising from natural monopoly markets (discrimination, cross subsidisation). Separation has several degrees: options include accounting separation, complete divestiture as well as transitory arrangements (e.g. the owner is the same but the activities are organised in separate companies) – it is customary to refer to these as degree differences, which is correct from the organisational aspect, but from the competition policy viewpoint these differences may be material.

The original problem can be eliminated in several ways: cross subsidisation, discrimination and the extension of market power from monopoly markets to competitive markets in other ways may be prohibited; in addition, accounting separation or divestiture may be required. The prohibition itself is necessary, but not sufficient because the authority trying to enforce such rules will encounter the problem of being unable to establish in the jungle of costs whether any cross subsidisation occurred. Accounting separation allows for the *supervision* of conduct, but this has the precondition that costs should be capable of separation, and that they are indeed separated, which must also be supervised. Divestiture removes the *motivation* for anticompetitive behaviour, thus it addresses the root of the problem; furthermore, supervision is also resolved in this manner.

In telecommunication, where the problem of network access is similar to that encountered in the electricity sector, MATÁV was instructed years ago to separate monopoly and competitive activities in its accounting, but this has not been fully achieved to this day, thus it fails to provide a basis for supervision and hinders the work of the regulator.

Accordingly, divestiture is a better solution than accounting separation, though in theory the latter would also be a sufficient option, but this requirement in itself, as previous experiences in Hungary show, would not guarantee that the desired objective is achieved, hence it would **not constitute a satisfactory solution**, and it would not express **commitment** to the introduction of competition.

### **Network separation must also be implemented in the case of regional and local networks**

One might say that separation is necessary not only in the case of the national high voltage networks but also in the case of the regional/local networks, currently managed by the distributors; in other words, the separation of activities must be ensured in both cases in the same manner.

This position is essentially acceptable and it follows from the principle of non-discrimination. In the longer term **separation are necessary at both levels**. There are essentially the same access problems in connection with regional/local networks as with the national high voltage network. However, there are also some differences: the owners of the regional/local networks (distributors) will want to enter each other's areas with their services, which will create a kind of equilibrium between them, reducing the scope for abuse. Similar considerations do not exist in the case of the national high voltage network. We must also remember that the regional/local networks are owned by integrated private enterprises, while the national high voltage network is controlled by a state owned company awaiting transformation. While in the latter case the owner's decision is enough for divestiture, in the former case divestiture may be achieved only by regulation, licensing or negotiations.

Due to the fundamental similarities all networks must be separated from trading and generating activities; this objective must be declared and preparations must be started. At the same time, temporary asymmetrical treatment may be taken on, whereby divestiture would be immediate in case of the national high tension network, while in case of the regional/local networks the provision of access would be required and regulated.

### **Devaluation due to divestiture?**

Meeting the minimum criteria essentially means breaking up the current MVM according to its various lines of business. One might say that such breaking up has adverse affects as well because MVM represents less value in parts than as a whole. Thus this break-up would entail devaluation, which should be avoided.

Potential devaluation is relevant in the event of **privatisation**. Information available to us indicates that the privatisation of MVM parts, or rather material parts, or the whole of the firm, is not on the agenda, and political intentions are also different. Thus devaluation would be latent, it would not manifest itself. Should privatisation still occur, devaluation is an issue only if the sale of MVM in one piece is an alternative to be considered. However, the privatisation of such an integrated enterprise with its enormous asset base and important role, its natural monopoly and, on the Hungarian scale, large market would be unreasonable not only for liberalisation and competition considerations. In addition, the unambiguous direction of processes within the EU – as well as the potential acceleration of such processes following the manifestation of the first positive effects of liberalisation – would probably deter investors from recognising in the purchase price the greater value of the company kept in its entirety, considering that sooner or later divestitures would occur

anyway because of these processes. The position that the company is worth more for investors as a whole than in parts is questionable from another angle also. The whole of the company is rather a “mouthful” for investors; probably only a few serious potential buyers would come forward, firms with similar integrated structures, while non-diversificated divisions, which on their own require less capital investment, would attract a large number of investors. As a result, investors could be made to bid in the second case, leading to higher privatisation proceeds, while in the first case this would be impracticable.

There are two possible reasons why the MVM parts kept together are worth more than if they are separated: (1) There may be economies in vertical integration; (2) Through anticompetitive strategies a vertically integrated company may generate extra profits, which necessary adds to its value. As for the first potential reason, we have no information indicative of the existence of substantial efficiencies that would question the reasonableness of divestiture. The second **cannot be a legitimate argument** if the objective is the introduction of competition. In the course of this, the dead value of the former dominant company is not lost but **transformed into value useful for society**; extra profit is converted into lower prices and competitiveness.

### **Torpedoing the flagship?**

It could be argued that the breaking up of MVM to satisfy the minimum criteria would potentially weaken a flagship of the Hungarian economy, a company that is a significant actor on a regional scale as well.

Two kinds of “flagship” are possible: a firm artificially inflated to its large size at the cost of society, protected from competition; or a company exhibiting good performance and being successful as a result of this. The first alternative reflects a now outdated industrial policy concept (“national champion”). This anticompetitive approach can produce conspicuous results but turns a blind eye to the other side of the coin: in such cases the competitiveness of the national economy is at stake on the one hand, and the “success” of a single company on the other. If the objective of transformation is to increase competitiveness - through the supply of cheap energy - , this flagship argument is also illegitimate.

Liberalisation, the introduction of competition and the necessary divestitures in themselves are not in conflict with the requirement that the MVM successor companies compete successfully on the market. The future of the network operator successor is secure because it has a natural monopoly that, given the appropriate regulations, assures a fair return on investment, risk-free, in the long term. The trader/generator successor may stand its ground in competition as well. Success on the market does not require possession of tools suitable for the implementation of anticompetitive strategies (which it must be deprived of to promote competition); it requires the company to have adequate capital, human resources, experience, reputation, competitive management and organisation. If the MVM successor meets the necessary conditions, it must be able to act as a **stable player** in electricity wholesale trade, export and import and the retail trade the last of which is to be liberalised later, even without possessing the network and system operator function, import and wholesale monopoly rights.

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