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## NATURAL MONOPOLIES AND PROBLEMS OF THE ENERGY MARKET IN BULGARIA

Speaking of natural monopolies we mean such a state in a given commodity market, where a single company is able to exert unlimited market power as a result of significant economies of scale in the production of certain products. That situation is economically justified and socially acceptable since this power is compensated by resource economies and preserved production effectiveness. The natural monopoly emerges as a result of the difference in technology effectiveness, often in conformity with market demand, and not as a consequence to competitors' actions. Given this reason, it is characterized by ever diminishing values of average and marginal costs as production volume grows. As a result of this the market has only place for a single company, which is able to achieve economies of scale for a given product. In such markets competition is undesirable or even impossible.

During the transformation from planned to market economy, Bulgaria's energy market situation changed radically. Fundamental changes were carried out in a number of branches, which were traditionally state-owned – electricity production and transport, water supply, heating, etc. The main arguments for reorganization of natural monopolies were the desire to change the form of ownership, claims for their production ineffectiveness and an aspiration to create a competitive environment. As a result of the changes, in present day we have a certain change in the substance of natural monopolies, which is manifested through some positive impact over public production processes. Furthermore, companies with monopoly positions in given economic sectors usually are in possession of significant investment capabilities, which are generally put in use.<sup>1</sup>

At the same time however, real life shows that despite the availability of technical and technological effectiveness, concentrating the rendering of a certain service in the hands of a single producer leads to a number of negative consequences. Abuse of monopoly positions, misrepresenting expenditures and imposing high prices

practically stultifies the economies of scale and forces society to pay an overly high social price for technological achievements. Very often this price can hardly be determined as monopolists are very diligent at concealing all information related to their activities. We should keep in mind that many other production facilities are largely dependent on the produce of natural monopolies. For this reason, enforcing regulation and transformation of natural monopolies are the means which should lead to achieving equilibrium between economic effectiveness and social justice. Reaching this equilibrium will allow the realization of some of the key objectives of state regulation such as:

1. Creating favorable conditions for the functioning and development of natural monopolies, while protecting the public interest.
2. Determining realistic prices for rendered services based on actual production costs and production effectiveness.
3. Stimulating producers to cut costs, improve quality of services and increase investment effectiveness.
4. Creating favorable conditions for competition in economic sectors with natural monopolies.

The main problem of regulation is to compel companies in monopolistic positions to act in unison with social objectives. Despite a number of positive changes and the experience accumulated through the past years, we have to admit that the Bulgarian energy market suffers a number of serious issues.

I. The market for services offered by natural monopolies is insufficiently liberal

The last few years mark a clear trend towards deregulation of natural monopolies with some sectors (telecommunications) where market liberalization and strengthened competition have led to the monopoly's disintegration. The benefits of liberalization (if achieved) on this markets are undeniable and they are reflected in:

- Reduced prices for services to levels, which are acceptable to an ever wider circle of consumers;

<sup>1</sup> For 2005 EVN Bulgaria has invested BGN 223 mill, and for 2007 – BGN 118 mill.; E.ON Bulgaria has invested BGN 89 mill. in 2007, and doubled the investment in 2008.

- Increased options for choice of service-providers and better contractual conditions of delivery;
- Improving quality and selection of service types;
- Abiding by market principles in pricing different service types;
- Maintenance and development of the infrastructure used to deliver the services, etc.

A good example for liberalization of a monopoly market are reforms of energy markets in some EU countries.<sup>2</sup> Thus for example, in Norway since 1991, Finland since 1991 and England, Wales, Sweden and Germany since 1999 all electricity consumers may freely choose their supplier. This group is later joined by other countries – Austria since 2001, Denmark since 2003 and Belgium since 2006.<sup>3</sup>

Bulgaria started the liberalization of its energy market in 2004 when seven electricity distribution companies (EDC) were bought by the Czech CEZ, the German E.ON and the Austrian EVN. Some restructuring also took place in NEC and Bulgargaz. Energy market analysis, however, shows that the partial liberalization achieved so far is absolutely insufficient and does not adequately serve the interests of end users.<sup>4</sup> The reasons for this negative conclusion are multiple, the key being:

1. Insufficiently effective restructuring of large suppliers such as NEC and Bulgargaz.

After all efforts to this end, these companies are still state-owned and continue to be market monopolists. For example, NEC forces NPP Kozloduy to sell electricity at lower, regulated prices, which causes losses to NPP and indirectly subsidizes the rest of the power plants. Furthermore, the company does not pay regularly and is in constant indebtedness, which amounts to EUR 483 mill. for 2012. As a state structure, NEC is not obliged to pay „transport” fee for the purchased electricity, which places it in a favorable condition compared to the rest of the electricity traders.

2. Heating utility companies and EDCs are practically left without competition.

One of the major goals of the sale of 67% of the power grid to the three private companies was the creation of effective competition among them, with all ensuing positive consequences. Experience shows that effective competition is only possible in a free market between equal economic entities. In other words – in order to liberalize the electricity market in Bulgaria we first need to privatize NEC and all electricity producers, as well as

remove all access barriers for other companies to the existing infrastructure. As a result of this, all consumers will be able to choose their electricity provider based on the conditions they offer. Another positive effect of market liberalization is the participation of a lot more competitors in servicing and maintenance of the used infrastructure since this will be in everyone's interest.

Unfortunately, we have to note that as of the present moment a large part of the liberalization measures remain on the wish list. The sale of 2/3 of the power grid to the three EDCs did not lead to the desired competition as they became owners of the grid in different regions where no one can oppose their monopolistic behavior. In practice we had a substitution of state with private monopoly, resulting in energy monopolies growing even stronger. Here we have to add the possibilities of cartel agreements between the three distribution companies, which is evident by their coordinated demands for higher electricity prices for consumers to the State Energy and Water Regulatory Commission (SEWRC).

3. Quiet often natural monopolies abusing their market power violate not only economic but also legal norms of the market economy, by imposing a real dictate over consumers. A particularly indicative case concerns the period between 01.07.2003 and 01.07.2004 when due to an „incorrect” methodology for electricity price determination it increased by 20.61% instead of the expected 15%. As a result of this the EDC EVN Bulgaria misappropriated BGN45 mill. The same company, regardless of the constant consumer protests, introduced quarterly meter reading and payment for used electricity and is not willing to change this approach in spite of the multiple warnings by the SEWRC and court decisions. The EDCs improper behavior towards consumers is the reason for the vast number of complaints filed in the SEWRC – 1356 and nearly 26 000 filed with the EDCs. Based on data by the Consumer Protection Commission there were 9499 complaints for the first half of 2011, 3897 (41%) of which are against mobile operators, electricity and heating utility companies.

II. In practice, energy market prices are not market prices.

It is a known fact that price is an expression of relationships between sellers and buyers, carried out in free market conditions. This means that economic entities function in their own interest without any interference. Under these conditions the equilibrium price will be the

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<sup>2</sup> For the EU in general the official deadline for liberalization of the energy market was 01.07.2007.

<sup>3</sup> Electric power sector reforms and their impact on consumer protection, Centre for Economic Development, Sofia, 2002, p.13 and 14.

<sup>4</sup> In relation to the insufficient degree of energy market liberalization, the EC sent a letter to Sofia on 29.09.2011, in which it insists on receiving information on how our country enacts the European directives related to the energy and gas sectors. This letter is the initial step of punitive procedure against energy sector monopolies.

results of interactions between demand and supply forces dependent on the quantity and quality (utility) of the given commodity. Thus determined, prices will provide the necessary information to economic entities at present and in the future, which will help for the effective coordination of their actions.

In the current situation, such conditions are practically absent on the Bulgarian energy market. For this reason, prices used by economic agents are not market as they are not formed as a result of enacted market rules. Some of the main reasons for this are:

1. There is no effective competition on the energy market at present.

Despite the privatization of the EDCs, they do not act as competing market entities. Relying on their monopoly in the given region and not always abiding by the rules defined by the state, they impose the most beneficial prices for them, guaranteeing large profits. As a result of this the EDCs are in constant contradiction with the SEWRC, which is trying to retain socially bearable prices for electric energy. We have a similar situation with the different heating utilities. As a result of this struggle (with the winner not always clear) service prices are formed that are far from the requirements of natural market principles.

2. It is unclear exactly how electricity, heating and gas prices are formed.

In 2007 SEWRC changed the method for determining energy companies prices from „costs plus” to „upper limit of prices” in order to create incentives for reducing production costs. The regulation period was also changed from 1 to 5 years, during which the set prices will not be changed except for annual inflation indexation. According to the commission this approach allows the companies to retain the part of the profit related to increased production effectiveness. Furthermore, it creates preconditions for better management flexibility as well as planning and managing investments.<sup>5</sup>

Experience, however, shows a totally different picture. Almost constantly the heating companies, EDCs and Bulgargaz file claims for price increases and these are significantly higher than the inflation index. The claims are backed by the need for investments, possibility for bankruptcy, etc.<sup>6</sup> In this respect the monopolists sometimes send absurd proposals. For example, not long ago the heating utilities asked for an increase in night electricity rates because the population preferred to use electricity for night heating and that presumably threatened the heating companies' existence. On the same lines the

Bulgarian State Railways asked to remove all bus lines travelling between the same destinations at the same time as the trains. As a result of these demands discussions are started, different organization get involved and in the end electricity and heating prices are increased in violation of regulatory documents, thus transferring the monopolists' problems to the consumers.

3. In certain cases not only the authorized authorities but the government itself interferes in energy market pricing. Such an example is agreement between the government and the petroleum company Lukoil, according to which Lukoil is bound to keep fuel prices static for the period between 23.03.2011 and 23.04.2011.

This agreement is an example of direct intervention in the business of a private company and non-market pricing, determining a ceiling price and period of action for prices of given commodities. Furthermore, this memorandum is an act of courtesy towards a producer, which has a decisive share (98%) in relation to automobile fuels and propane-butane production. In this case the state not only violates market principles, but also asks Lukoil for a temporary grace period for fuel price increase instead of seeking to perform its lawful obligations. It is also clear, that such a measure will not produce a significant effect as the period of action is too short in order to expect serious market changes.

### III. Inadequate consumer protection

The energy services market is possibly the sector in which consumer rights are most severely violated. In the conditions of a monopolized market they are unable to select their electricity, heating or gas provider freely, based on market principles. Taking for granted both the prices and quality of rendered services, consumers are in a position of full dependence upon the wishes of the service providers. This is expressed in the constant, frequently ungrounded, price increases, the poor quality of the services, irregularities of supply, etc. Receiving incomprehensible or overcharged bills, which if not paid give the monopolist the right to unilaterally discontinue the contract with the consumer (even in the cases of blatant errors) is a permanent phenomenon.

Given this situation, the energy services market is the sector of Bulgarian economy where we most sharply feel the need for state intervention for social protection. This is within the authority of the SEWRC, which main objective is to carry out control over natural monopolies actions and not allow consumer rights violations (SEWRC's success in this is a point of a separate

<sup>5</sup> „Utilities”, 2008, issue 5, стр.18.

<sup>6</sup> On 11.09.2011 Bulgargaz filed with the SEWRC for a wholesale gas price increase by 14% with the argument that this increase will allow the company to optimize its costs for Q4 of 2011.

discussion). In relation to the mentioned request by Bulgargaz for price increase of 14%, the commission answered that the gas price increase may not be higher than 10%, without explaining to society the basis of the claim or SEWRC's answer. It is true that in its capacity of a specialized state body, the commission is independent and no one may exert influence on its activity. However, a bit more transparency and information regarding its decisions would be useful for all. In this respect, some proposals by civil associations to include a larger number of NGO experts in the Consultative Council, provide access to monopoly companies original documents, etc. would have a positive effect on the work of the SEWRC and thus on consumers rights as well.

The problem with state control has a downside as well. By performing its functions the SEWRC intervenes deeply into producer-consumer relationships, which severely modifies their nature. In a number of cases, state intervention goes out of the limitations of a simple correction of deviations from the market mechanism by turning into an expression of full administrative control, which is not so concerned with the monopolists' mistakes but rather helps retain the market status quo.

Other serious problems exist, which the limited size of this paper does not allow to discuss here. In conclusion, however, we have to note that the current situation of the energy market, dominated by a group of natural monopolies, is to the detriment of both consumers as well as the national economy. It is perfectly clear that regardless of any efforts by state regulatory bodies, it is not until a real competitive environment is created in this sector that a significant success may be achieved. It is beyond doubt that Bulgaria's road to a liberalized energy market is very long and a lot of efforts, desire and political will, are needed in order to successfully complete it.

#### **Кунев К. Природні монополії і проблеми енергетичного ринку в Болгарії**

У статті розглянуто причини, які приводять до встановлення природних монополій, і в зв'язку з цим визначено основні завдання, варті державного регулювання в економіці, направлених на зменшення їх негативної дії на національне господарство. Проведено аналіз енергетичного ринку в Болгарії, виділено основні проблеми, які перешкоджають його нормальному функціонуванню. Вказані причини, що привели до таких явищ як недостатній ступінь лібералізації енергетичного сектора, відсутність умов для ефективної конкуренції між різними суб'єктами ринку; і до деяких серйозних помилок, допущених при реструктуруванні енергетичного ринку. Розглянуто також і необхідність державного втручання в управління енергетичним сектором з урахуванням контролю над діяльністю природних монополій і захистом інтересів споживачів.

*Ключові слова:* природні монополії, конкуренція, державне регулювання економіки, лібералізація енергетичного ринку, ціноутворення на енергетичному ринку, захист споживачів.

#### **Кунев К. Естественные монополии и проблемы энергетического рынка в Болгарии**

В статье рассматриваются причины, которые приводят к установлению естественных монополий, и в этой связи определены основные задачи, стоящие перед государственным регулированием экономики, направленные на уменьшение их отрицательного воздействия на национальное хозяйство. Проведен анализ энергетического рынка в Болгарии, при этом выделены основные проблемы, которые препятствуют его нормальному функционированию. Указаны причины, приведшие к таким явлениям как недостаточная степень либерализации энергетического сектора, отсутствие условий для эффективной конкуренции между различными субъектами рынка, наряду с этим и к некоторым серьезным ошибкам, допущенным при реструктурировании энергетического рынка. Рассматривается также и необходимость государственного вмешательства в управление энергетическим сектором с учетом контроля над деятельностью естественных монополий и защитой интересов потребителей.

*Ключевые слова:* естественные монополии, конкуренция, государственное регулирование экономики, либерализация энергетического рынка, ценообразование на энергетическом рынке, защита потребителей.

#### **Kunev K. Natural Monopolies and Issues of the Energy Market in Bulgaria**

The article discusses the reasons which lead to the establishment of natural monopolies and in this respect it identifies the main tasks facing the state regulation of economy aimed at reducing their negative impact on the national economy. The energy market in Bulgaria is analyzed and the main problems hindering its normal operation are outlined. The article also indicates what causes the problems: insufficient degree of energy sector liberalization, lack of conditions for effective competition between the different market subjects, as well as some serious mistakes in restructuring the energy market. It also discusses the need of government intervention in the energy sector management with a view to control the activities of natural monopolies and to protect consumer interests.

*Key words:* natural monopolies, competition, government regulation of economy, energy market liberalization, price formation in the energy market, consumer protection.

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