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Bulgarian electricity market restructuring

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ABSTRACT

The energy sector in Bulgaria has undergone major restructuring in recent years. It faces the dual challenges of achieving regulatory stability to attract private investors, and creating a functioning competition energy market. As of the EU Accession in 2007, Bulgaria has fully liberalized power and gas markets. The 2003 Energy Law establishes the energy sector legal framework and sets the basis for creation of a transparent and predictable regulatory environment where the key regulatory responsibilities are vested with the State Energy and Water Regulatory Commission (SEWRC).

The energy sector experienced significant problems in the first half of 2007 due to lost production capacities and regulatory failures on the electricity market. Excess price regulations on the market of electricity supplies to household, coupled with insufficient liberalization of imports and exports, create unfavorable conditions for power producers and large electricity users. The energy regulator has tried to achieve several incompatible targets as of July 1, 2007 for maintaining low electricity prices for households in response to political pressure, low power generation prices amid rising input costs, and market opening in compliance with EU regulations.

1. The energy policy of Bulgaria

The Energy Strategy of Bulgaria, approved by the National Assembly in 2002, has outlined the country's energy policy and the principal reforms envisaged for the sector, the leading priority being the establishment of a competitive energy market. The main Strategy guidelines are expected to provide for security of supply, a competitive energy sector for a competitive economy, and environmental protection. The three major steps, pointed out in the Strategy, were modernization, market liberalization and energy efficiency.

1.1. Security of energy supply and the development of a competitive energy market

The primary energy balance of the country is well structured in terms of diversity of primary energy sources, but at the same time the import dependence of the latter is about 70%, the main supplier being the Russian Federation.

Security of energy supply does not necessarily mean minimizing the import, but rather reducing the risks of failing to provide the necessary supplies through a diversification of the energy resources in terms of the latter's type, source and supplier, given the regional and global energy market trends. This aspect of the security of supply has a positive impact on the establishment of a competitive energy market.

The diversification of energy supply will foster competition among the major energy suppliers and consequently a reduction of primary energy prices. The accumulated experience and the importance of the Bulgarian energy sector for the Region – *as it covers a considerable part of the power balance deficit of the net importers in the South East European region and plays an important role in the gas transit towards the countries in the Region* – and the positive impact resulting from the energy supply diversification should result in an auspicious climate for attraction of investments into the energy sector.

The strategic location of Bulgaria – between Russia and South East Europe and close to the Caspian Region and the Middle East – creates significant advantages for diversification of the type and source of energy supplies and the establishment of a competitive energy sector. Bulgaria is located in the area between the main producers and consumers of energy resources in Eurasia. The possibility for transit of Russian and Asian energy resources (natural gas and oil) to Southern, Central and Western Europe, as well as the utilization of these resources and the development of nuclear energy will help create a competitive energy sector which will not only export a considerable amount of electricity to the regional South East Europe electricity market and the common EU electricity market, but also transit considerable energy flows (oil and gas) to countries within the region and to Central European ones.

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1.2. Measures for environmental protection in a liberalized electricity market environment

The Republic of Bulgaria has ratified the United Nations Framework Convention on Climate Change. According to the Kyoto Protocol signed in 1997 Bulgaria has committed itself to reducing greenhouse gas emissions within the period 2008–2012 by 8% compared to the emission level in 1988. During the negotiation process with the EU on Chapter 22 "Environment" Bulgaria committed itself to fulfilling the requirements of EU Directive 2001/80/EC with regard to reducing the emissions of nitrogen oxides, sulphur dioxide and dust from large combustion facilities.

The investment necessary to meet the environmental goals is estimated at more than 3 billion leva. In order to ensure that the Bulgarian side will be able to actively participate in the emission trade process it seems absolutely necessary to maintain and even increase the share of electricity produced by NPPs through the construction of replacement nuclear capacities. The development of nuclear energy, in line with the commonly adopted nuclear safety standards, is an important instrument conducive to fulfillment of the international commitments as well as for the fulfillment of the environmental standards, set by EU legislation in the energy sector.

To the end of securing the relevant and accessible financial resource for the implementation of energy efficiency oriented projects the Energy Efficiency Act adopted in February 2004 envisaged the establishment of an Energy Efficient Fund, the function of which was to cover two main areas. (1) Direct allocation of low interest rate credit lines; and (2) guaranteeing credit lines for energy efficiency projects allocated by other financial institutions – this also results in lower interest rates.

The Energy Law and Energy Efficiency Act envisage additional incentives targeting the implementation of energy efficiency measures and utilization of RES. Those incentives come in terms of tax alleviations and reduced concession taxes for the utilization of geothermal energy.

2. Electricity reform in Bulgaria

In the period after 1989 the state energy authorities were represented by the Energy Committee, then by the Ministry of Energy, the State Agency of Energy and Energy Resources, the Ministry of Energy and Energy Resources, and since August 2005 by the Ministry of Economy and Energy. The economic functions are performed by the National Electric Company – NEK EAD, established on 01.01.1992 as a single-owner trade company with state property and a two-tier management system and a supervisory board. A year later the supervisory board was abolished and a single-tier scheme of management was established in NEK EAD.

The reforms continued further with the abolishment of the NEK monopoly and the establishment of new players in the electricity market.

The real restructuring of the Bulgarian electricity market started in the beginning of the 21st century. Fig. 1 shows the exact stages of the reform and the liberalization of the electricity market through the last 7 years.

In the middle of 2000 the National Electric Company was restructured and seven electricity distribution companies and three electricity producers were separated from it and became independent legal entities. Kozlodui NPP, Rousse East TPP and Maritsa East 1 TPP were set up as independent electricity producers. NEK EAD began functioning as a separate unit within the framework of the Single Buyer Model. The National Electric Company is the owner of the 110 kV and higher voltage transmission network and acts as a Transmission System Operator (TSO) through its National Dispatch Center (NDC).

In 2001 the National Electric Company functioned as a "single buyer" of electric power from the independent power producers and as a single supplier to the distribution companies and clients (Fig. 2).

The restructuring of the Bulgarian electricity sector has had a significant impact on increasing the investment opportunities in the sector. One of the key advantages of the Single Buyer Model is that funds from the private sector can be attracted through the installation of additional capacities or through complete privatization. The existence of a single transmission company facilitated Bulgaria joining UCTE after the execution of a list of measures for improvement of the technical parameters of the Bulgarian EPS and its alignment with the UCTE requirements. In 2002 NEK EAD became a full member of SUDEL and in May 2003 it became a full member of UCTE as well.

Fig. 1. Reform and liberalization of the Bulgarian electricity market, 2001–2006. Source: Bulgarian Energy Sector (2004), Ministry of Energy and Energy Resources; October 2004.