

Inter-regional cooperation in the energy sector: the case with the electricity markets in the Balkans

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Abstract:

The European energy policy is based on the principle that an independent regulated and competitive energy market is the most effective and efficient way to achieve a common energy market and long-term competitiveness of the economy in the European Union (EU). That is why the first long-term European objectives were formulated in the early 90s with the White Paper on Energy Policy, followed by the Green Paper "Towards a European strategy for the security of energy supply". These strategical documents emphasize that EU energy policy must be part of the general objectives of economic policy based on market integration and deregulation. An important step in the transition to a pan-European open electricity market is the initial integration of markets at the regional level. From this point of view, the aim of the article is to present an overview of the inter-regional cooperation of the electricity markets in the Balkans, as part of the proses of creating common energy market in the EU. The paper relates to the EU energy integration and contains the regional aspect, based on the Bulgarian experience. More particular, the aim of the report is to present the process of building a regional electricity market in Southeast Europe in response to the pan-European goal of building a common electricity market. From this point of view, the paper relates to the EU integration in the area of electricity markets. It contains the regional aspect of the integration, including the countries of the Balkans, and it is based at the Bulgarian experience in this cooperation.

Key words: EU, energy markets, integration, inter-regional cooperation, liberalization

Introduction

The process of establishment Internal Market of electricity in the Balkans, begin in the 90s of the last century, starting with three main packages of EU legislation as part of the European regulatory model. These are: 1. First liberalization package of the EU since 1996; 2. Second liberalization package of the EU since 2003 and 3. Third liberalization package of the EU since 2009. All of the packages required common rules for all Member States in order to achieve the European goal – common electricity market. "They prescribe: the market of electricity to be fully open to competition by 2007 by separation suppling from production and transmission of electricity, creation of effective rules, equal treatment and transparency of all participants in the energy markets, open access to the energy infrastructure and the existence of independent regulatory authorities. The main reason for that is the ineffective operation of the electricity markets, mainly by the fact that many European countries keep following the model of vertically integrated undertaking. The vertically integrated energy companies refer to companies which perform at least two of the following: production,

transmission, distribution or storage in electricity, when one entity can control the other”¹. That is why European energy policy is based on the principle that an independent regulated and competitive energy market is the most effective and efficient way to achieve a common energy market and long-term competitiveness of the economy.

The process of building a regional electricity market in the Balkans

Within the framework of the "Exploring the Competitive Electricity Market in the Balkans" under the PHARE program of the European Commission in September 1999 in Greece, Bulgaria together with Albania, Bosnia and Herzegovina, Greece, Macedonia and Romania signed a declaration of intent to create regional electricity market in Southeast Europe. The process of regional integration requires initial electricity markets open to competition. In this context, "the liberalization of the electricity market in Bulgaria is taking place in accordance with the requirements of the European directives according to which each producer / supplier may enter into transactions with privileged consumers / electricity traders and other producers. The achievement of this objective includes the release of prices on the one hand and free access of market participants on the other in two segments - the organization of a wholesale electricity market (for industrial enterprises) and the organization of a retail electricity market (for household consumers) ". That is, the outlined scheme for liberalizing the electricity market in Bulgaria includes the construction of a free market for wholesale and retail of electricity.

At present, the electricity market in Bulgaria is based on two parallel functioning segments. These are: the market of regulated prices and the market of freely negotiated prices.

The market of regulatory prices is characterized by the prices, approved by the State Energy and Water Regulatory Commission (The Bulgarian regulator); the parties of the transactions are determined by legislation (The Law of Energy); relations are regulated on the basis of measured quantities of energy; participants do not balance; the price of access and transfer is paid to the existing supplier.

The market of freely negotiated prices is characterized by regulated part and unregulated part. The regulated part of the market is organized through contracts with the National Electricity Company (NEK EAD) at prices regulated by the SWERC. The unregulated part works through freely negotiated prices between the participants.

The final prices of electricity for the regulated market are formed in the chain production - transmission - distribution – supplying and are determined by the Bulgarian Regulatory Commission. Generation/production, transmission, distribution and supplying are key elements of the power system in Bulgaria. However, the idea of liberalization has been electricity trading to be separated from distribution. In fact, this model marked the beginning to

¹ Andreeva, Lyubimka. The Regulatory Model of Energy Services' Governance in the EU. Public Administration Issue, ISSN 1999-5431, 2018 g. p21-42. 2018

liberalization of the Bulgarian electricity market by starting Energy Stock Exchange/ Power Exchange.

The establishment of Bulgarian stock market of electricity is a basic prerequisite for liberalization of the energy market. The aim of it is to create conditions for operating the electricity market in a competitive, transparent and non-discriminatory environment; to determine reference electricity prices according to supply and demand needs and to ensure optimum use of the transmission capacity of interconnections with neighboring countries. The Bulgarian stock exchange market is organized on a daily base for single hour. Transactions concluded on the stock market, represent a strong commitment for electricity traders to supply electricity. Each transaction is linked to one day, one interval and one market area of delivering electricity.

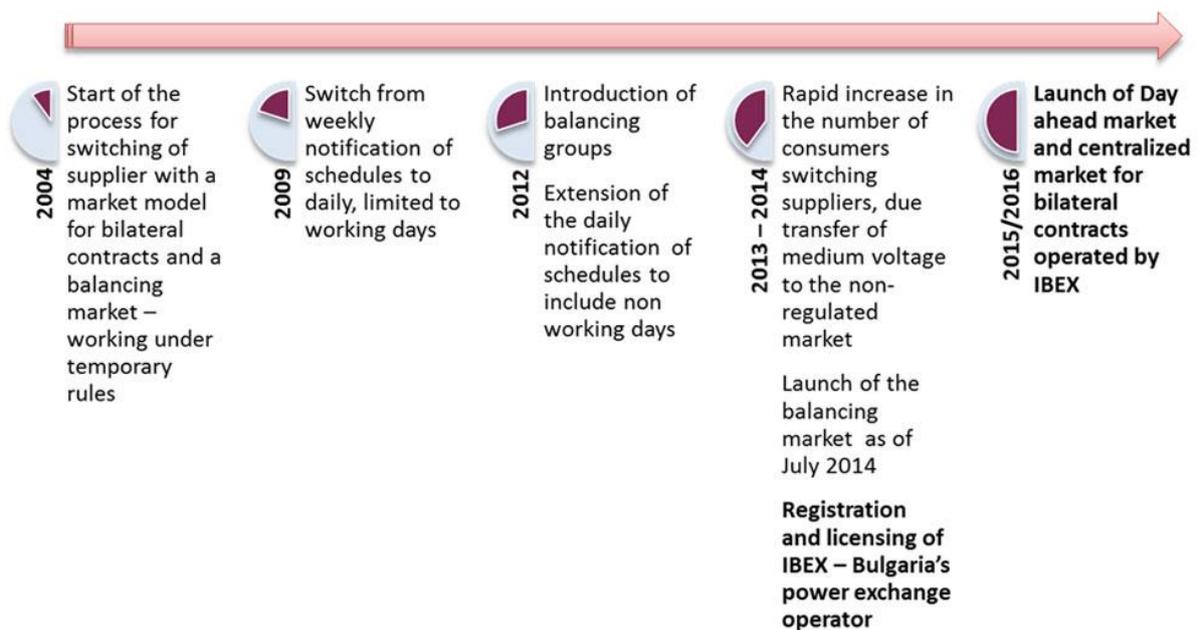


Figure 1: Building a stock market for electricity²

The introduction of the new trading platform "within the day", which was done through amendments to the Electricity Trading Rules, is an important step towards the Europeanization of the Bulgarian energy sector. The Energy Exchange is the face of the liberalization of the Bulgarian electricity market and the start of the new market segment opens the way for the gradual establishment of a regional electricity market and, in the future, for the integration into the combined European electricity market.

Practical experience over the years

Since the signing of the initial memorandum on the integration of the regional energy market, Bulgarian electricity has been feeding almost continuously the market in Greece, Serbia, Italy,

² Independent Bulgarian Energy Exchange - <http://www.ibex.bg/en>

Romania, Macedonia and Albania. In particular, the picture of imports into these countries is as follows³:

- For Greece, Bulgaria is the first supplier in the period 2007-2008, with a share of 44 (1,323 GWh) to 49% (1,323 GWh) of total imports. Immediately after us are Italy, Austria and Cyprus;
- For Serbia: Our share in import is between 5% (167 ghp) and 8% (307 ghp) per year. Before we are in the market are Montenegro, Romania and Hungary;
- For Romania: From a major supplier with a share of 83% (821 GWh) in 2006, we reach 4% (39 GWh) in 2008. Before us are Moldova and Hungary, and immediately behind us is Ukraine;
- For Macedonia: In 2004, we reached a share of 41% (434 GWh), down to 16% (471 GWh) in 2007. Before us are Switzerland, Serbia, and immediately behind us - Romania and Germany;
- For Albania: We have reached a share of about 29% (43 GWh) in 2005. There has been a consistently significant presence in the last years in this market in Switzerland, Hungary, the Czech Republic, Slovenia;
- For Italy: The Bulgarian share is between 0.04 (13 GWh) and 0.3% (111 GWh). We rank after major suppliers such as Switzerland, France, the United Kingdom, Slovenia, Austria, Germany and Spain.

The Bulgarian share of electricity imported into Southeast European countries has changed significantly over the years. For the period 2004-2008 it is between 2.7 and 5.4%, according to data published information. In terms of value, Bulgarian energy exports in different periods (from 2004 until now) are increasing in principle, with the exception of 2018 when, from May, Bulgaria stopped exporting electricity to Greece, as reported in the Operational Data of the Electricity system operator, but continued exports to Macedonia, Turkey and Serbia. The data for the period January - May 2018 show that the production and consumption of electricity in the country decreased by 4.42% on an annual basis. Less power was produced by both Kozloduy NPP and TPPs in the Marsh Basin as well as RES plants. Only 69% of hydroelectric power (hydroelectric power) has a growth rate. However, the trend for increased electricity exports remains - 19.9% export more than last year. Overall, compared to other member states, Bulgarian efforts to reform the electricity market started late and seem largely incomplete. The Bulgarian electricity market is still presents a hybrid model. Part of the transactions for the sale of electricity concluded at regulated prices approved by the Regulator, and the rest is traded on the liberalized market at freely negotiated prices. The share of regulated segment of the electricity market is still range of 75% to 90%. The small share of the free market in Bulgaria means that the competition can not properly perform its function of ensuring efficiency in this segment of the market. The design of the electricity

³ Data of Bulgarian Industrial Association - <http://www.ibex.bg/en>

market in Bulgaria is suboptimal, with its flaws, mostly due to the preservation of the model vertically integrated undertaking. Despite of the partly privatization of assets for production and distribution, the vertically integrated, fully state-owned company - Bulgarian Energy Holding - "BEH" retains the central role, together with its subsidiary company - National Electricity Company.

Conclusions

The process of Inter-regional cooperation in the energy sector in Southeast Europe is based on the common European energy market goal and the commitment by the Balkans countries in this region to liberalize their electricity markets.

In fact, in order to create Inter-regional energy market, several basic prerequisites, both regulatory and technical, are needed:

- There should be sufficient well-developed infrastructure (power lines) through which the electricity system operators to manage energy flows between countries to their conditional alignment, thus creating kaping (coupling) between markets.
- Absence of surcharges on imports or exports between markets to reach the market price and demand for the distributed specific day. Due to the specificity of the energy system, unlike other types of goods, electricity cannot be stored and the quantity produced must be equal to the amount of energy consumed, which also determines the daily price of the exchange.

The implementation of these two preconditions, along with the launch of the trading platform, is expected to lead in the short term to the creation of a common market in the region. With the adoption of the Electricity Trading Rules and the subsequent changes in them, the regulatory opportunity for the introduction of all major segments of stock exchange is actually created. The forthcoming legislative changes that will transpose into national legislation the Rules on Integrity and Transparency of the Wholesale Market (REMIT) also create additional guarantees for fair stock exchange trading. This in turn requires the national regulator (the Energy and Water Regulatory Commission) to limit its future work to permanent monitoring and control and to impose appropriate sanctions on violators, to prevent market manipulation and market abuse in order to achieve fair and reasoned stock prices, strengthening control powers and protecting the common interest.

References

Andreeva, Lyubimka (2018) The Regulatory Model of Energy Services' Governance in the EU. Public Administration Issue, ISSN 1999-5431, 2018 g. p21-42.

Bulgarian Industrial Association - <https://en.bia-bg.com>

Independent Bulgarian Energy Exchange - <http://www.ibex.bg/en>

Directive 96/92/EU of the European Parliament and of the Council concerning common rules for the internal market in electricity

Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC

Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC