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ZYRA E RREGULLATORIT PËR ENERGJI
REGULATORNI URED ZA ENERGIJU
ENERGY REGULATORY OFFICE



EVALUATION OF COMPETITION IN ELECTRICITY MARKET IN KOSOVO 2018-2019

Pristina, December 2020

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Abbreviations

ERO	Energy Regulatory Office
KOSTT	Transmission System and Market Operator
TSO	Transmission System Operator
MO	Market Operator
KEK	Kosovo Energy Corporation
DSO	Distribution System Operator
KESCO	Kosovo Electricity Supply Company
KEDS	Kosovo Electricity Distribution Company
MED	Ministry of Economy and Environment
ECS	Energy Community Secretariat
EU	European Union
RES	Renewable Energy Sources
BSA	Bulk Supply Agreement (KEK-KEDS)
EFET	European Federation of Energy Traders
HHI	Herfindahl-Hirschman Index
KCA	Kosovo Competition Authority

1. Introduction

There have been significant developments in the electricity sector in Kosovo in recent years. These developments are preceded by the unbundling of vertically integrated enterprises and changes in legislation, enabling the implementation of reforms in the electricity sector and the preparation for market liberalization.

In 2016, new energy laws were adopted: the Law on Energy, the Law on Electricity and the Law on Energy Regulator. These laws are partially in line with the Third Package, namely the Directive No. 2009/72 /EC, regarding the common rules for the internal electricity market and Regulation No. 714/2009/EC on the criteria for access to network for cross-border electricity services, as well as the requirements of the Energy Community Treaty.

Following the amendments in the primary legislation, the secondary legislation for the energy sector was also harmonized, enabling the functioning of the energy market in accordance with the requirements of the Energy Community Treaty. The Energy Regulatory Office is taking the required measures to implement reforms in the electricity sector, regarding the legislative aspect and their implementation in practice.

The increase of efficiency in the energy sector is essential to fulfill the challenges posed by the rising consumption, therefore market liberalization in the electricity sector, as in other industries, is due to the fact that market competition is considered a source of market efficiency, and this can only be applied in a market which is open to all participants. Competitive market practices show that in those circumstances the right signals are given regarding production, demand and investment for participants in the energy sector.

Taking into account that there are natural monopolies in the electricity sector in Kosovo, the market liberalization process is more difficult, however the presence of competition in the market is essential in order for market liberalization to be fruitful in terms of economic efficiency.

The electricity sector is run by natural monopoly, such as electricity transmission and distribution networks, regardless of whether a network is operated by a public or private operator. Market liberalization enables competition in the market and should be introduced from the generation stage to the final customers of electricity.

Through this report prepared by ERO, the competition in the wholesale and retail market of electricity in the country, for the period 2018-2019 will be evaluated. The presence of competition in the internal market will be evaluated by comparing the existing market situation with the legal requirements in line with the primary and secondary legislation of the energy sector in Kosovo, the application of the HHI market concentration measurement indicator, including the decision of the Regulator's Board V_342_2011 on Criteria for Evaluation of Competition in Electricity Supply in Kosovo.

This report presents ERO's evaluation whether there is:

- effective competition in the wholesale and retail electricity market, and
- market characteristics that may hinder effective competition.

2. Legal basis

Energy Regulatory Office (the Regulator) - is an independent agency, legally and functionally separated from any other natural or legal person. The duties and functions of the Regulator are defined in the Law on Energy Regulator No. 05/L-084, which include: the establishment and functioning of the efficient, transparent and non-discriminatory energy market; determination of criteria and conditions as well as issuing licenses for carrying out activities in the energy sector; defining criteria and conditions for granting authorizations for construction of new capacities; market monitoring and improvement of security of energy supply; setting tariffs for energy activities in a reasonable manner based on the tariff methodology; monitoring and preventing the establishment of a dominant position and non-competitive practices by energy enterprises, as well as resolving complaints and disputes in the energy sector.

The Law on Energy Regulator 05/L -084, Article 15 - among others, defines the responsibility for evaluating the functioning of the market and competition, which states: *to meet its duties, the Regulator shall have the authority and responsibility as follows:*

“1.2. to foster the transparent and non-discriminatory functioning of energy markets based on free market principles for competitive activities and regulated activities;”

One of the responsibilities of the Regulator, in order to protect the customers who are entitled the universal service, is to charge the public service obligation to energy enterprises. In order to charge the energy enterprises with this obligation, the Regulator must act in accordance with Article 51 of the Law on the Energy Regulator, which states, inter alia:

“1.3. regularly assesses the possible effects of the public service obligation on national and international competition in the energy markets, and considers whether or not such obligations should be revised;

Also, according to the Law on Energy Regulator, within its competencies, the Regulator implements measures aimed at preventing violations of the provisions of the Law on Energy, Articles 22 and 23, which relate to the prohibition of competition limitations, respectively prohibiting the abuse of a dominant position in the market.

Whereas, according to the Law on Electricity no. 05 /L-085, Article 26, among others, the following are defined:

Paragraph 1. “The Regulator, in consultation with the Kosovo Competition Authority and State Aid Office, shall at least once in two (2) years conduct investigations related to the functioning of the electricity market.”

Paragraph 2. “The Regulator may establish necessary and proportional public service obligations with the aim of stimulating effective competition and ensuring regular functioning of the electricity market. These measures may include programs for the provision in the market of certain amounts of electricity, according to which entities are obliged to sell or make available certain amounts of electricity or provide access to a part of their generation capacities to interested suppliers, for a certain period of time.”

Whereas the Law on Energy No. 05/L-081, respectively Article 24 defines the competencies of regulatory bodies regarding competition issues as follows:

“2. If the Regulator acquires reasonable evidence of an actual or suspected violation under the provisions of Article 22 and 23 of this Law by an energy enterprise, the Regulator shall provide such evidence to the Kosovo Competition Authority. The Kosovo Competition Authority shall initiate an investigation of the alleged violation, and shall take whatever enforcement measures it deems necessary and appropriate to remedy or otherwise address such alleged violation as provided for by the Law on Competition.”

“3. Kosovo Competition Authority conducts an investigation – whether on information obtained from the Regulator or any other source, including on its own motion - of an alleged or potential violation by an energy enterprise of the Law on Competition according to the Article 22 or 23 of this Law, the Regulator shall, provide assistance to the Kosovo Competition Authority with the conduct of such investigation, and the assessment of the alleged violation.”

Although ERO and KCA are obliged to sign a memorandum of cooperation to meet the requirements arising from Article 24 of the Law on Energy Regulator, this has not happened yet.

3. Main participants and their role in electricity market

Producer (generator) is a natural or legal person that produces electricity, which may be connected to the transmission or distribution network. Electricity generation is realized by KEK (TPP "Kosova A" and TPP "Kosova B") and HPP Ujmani which are owned by the Government of the Republic of Kosovo, and other generators within RES which are privately owned.

Market Operator (MO) is responsible for the organization, operation and management of the electricity market in the entire territory of the Republic of Kosovo in accordance with the Market Rules approved by the Regulator. The activity performed by the Market Operator is related to the management of the electricity market and the preparation of financial reports for market participants according to the Final Settlement, without including the purchase or sale of electricity, in accordance with the provisions of market rules.

Transmission System Operator (TSO) is a natural or legal person responsible for the operation, maintenance and, if necessary, development of the transmission network in a certain area, as well as where possible interconnectors with other systems, and to guarantee the long-term ability of the network to fulfill the requirements for electricity transmission as well as system balancing.

Distribution System Operator (DSO) –is responsible for the operation, maintenance and, if necessary, development of the distribution system in a given area and, where possible, its interconnectors with other systems, as well as for ensuring the long-term ability of the system to cover reasonable requirements for electricity distribution. The DSO also provides management of customer meter databases and collection of meter readings for final reconciliation purposes.

Suppliers –are energy companies licensed by the Regulator to carry out the activity of customer supply in Kosovo. Electricity supply is an activity independent of the activity of transmission and distribution of electricity and is related to the purchase, sale, including resale of electricity to customers.

4. Description of electricity market in Kosovo

The restructuring of the electricity market in Kosovo has started since 2004 when the laws for the energy sector were developed and approved, where, among others, the Energy Regulatory Office was established. The process continued with the unbundling of the vertically integrated company KEK, and the establishment of the Transmission System and Market Operator (KOSTT) in 2006. Further unbundling continued with the separation of distribution and supply from KEK, which were privatized in May 2013. In 2015, the legal unbundling of distribution from supply took place, which resulted in the establishment of two companies: the Distribution System Operator (KEDS) and the Electricity Supplier (KESCO).

The electricity market in Kosovo mainly includes bilateral electricity trading. KOSTT operates with two licenses: as a Transmission System Operator and as a Market Operator.

The Market Operator, in addition to other obligations defined by legislation, is also responsible for the organization and operation of the electricity market in Kosovo.

In Kosovo there is still no organized day-ahead or intraday market, therefore wholesale electricity trading is carried out mainly through bilateral contracts between producers and suppliers (traders). A part of electricity to fulfill the local demand for the needs of customers who are entitled the universal service of supply (USS), to cover system losses, as well as for customers at deregulated prices, is imported (purchased) through bilateral contracts in free market and/or in regional markets organized day-ahead or intraday (through traders).

Electricity produced by KEK under the Bulk Supply Agreement¹ (BSA) is provided to the Supplier who supplies the eligible customers of the Universal Service and to cover system losses, and the surpluses are traded in the wholesale market in accordance with the "Procedure for Electricity Trading."²

According to legal requirements, generation prices are deregulated from April 2017, except for the part of energy produced by RES generators which are under the Support Scheme.

Retail supply is realized through suppliers and so far the Energy Regulatory Office has licensed eight (8) suppliers, but only KESCO supplier is active in the market. For the purpose of security of supply and protection of customers who are entitled the universal service, as well as the need to regulate the price of electricity of final buyers who are entitled the supply within the universal service, ERO has set for a transitional phase the Public Service Obligation³ to the supplier KESCO, which supplies final customers who are entitled the universal service at regulated prices, and also so far supplies other customers at deregulated prices, as well as has been appointed by ERO as a Supplier of Last Resort.

Kosovo, as a signatory of the Energy Community Treaty, has undertaken obligations for the implementation of the Third Energy Package and in this regard, ERO is continuously promoting the development of a competitive wholesale and retail market which enables customers to benefit from competitive prices. In order to implement this, ERO has drafted and approved the Guideline on

¹ https://mzhe-ks.net/repository/docs/MARREVESHJE_PER_FURNIZIM_ME_SHUMICE_-_tetor2012_KKDFE.pdf

² http://ero-ks.org/2019/Tregu/Procedure_for_Electricity_Trading.pdf

³ http://ero-ks.org/2017/Vendimet/V_916_2017_eng.pdf

Liberalization of Electricity Market in Kosovo. ⁴ According to this Guideline, the price deregulation for final customers will be carried out gradually, where customers connected to the 220 kV and 110 kV voltage network are already supplied at deregulated prices, while other customers connected to the 35 kV voltage network, were expected to be supplied with energy at deregulated prices starting from 31 March 2020, meanwhile customers connected to the 10 kV voltage level are expected to be supplied at regulated prices by 31 March 2021. Whereas, the liabilities to the TSO, MO, DSO and the renewable energy fund are regulated.

⁴ <http://ero-ks.org/2017/AktetUdhezimet/Guideline%20on%20Liberalization%20of%20Electricity%20Market%20in%20Kosovo.pdf>

5. Wholesale electricity market

Sale and purchase in the wholesale electricity market is contracted through bilateral contracts and through the organized regional electricity market. The bilateral electricity market is the market where the purchase and sale of electricity is carried out directly between market participants based on bilateral agreements, respecting the Procedure for Electricity Trading.

According to the applicable laws, the participants in the electricity market can enter into contracts for the sale or purchase of electricity with:

- other energy enterprises and customers within Kosovo;
- other electricity enterprises and customers in other systems of the Energy Community Contracting Parties as long as the suppliers comply with the applicable balancing energy trading rules.

The access of participants in the energy market in Kosovo is considered to be easy, their licensing is carried out by the Regulator, which according to the results of a survey conducted by ERO with licensed suppliers in Kosovo, is a quick and simplified procedure. Another facilitation is the non-obligation for licensing of those traders who hold a license in any of the other countries of Energy Community Treaty, respecting the principle of reciprocity.

Electricity generation capacities in Kosovo are mainly from thermal power plants which account for about 95% of domestic production, and the rest are hydropower plants, wind plants and photovoltaic panels.

The largest existing producer (KEK), under the **Bulk Supply Agreement**, is obliged to provide the necessary amount of energy with a priority to the supplier (KESCO) to supply customers who are entitled the universal service. The rest of the generation is provided to the TSO and the DSO to cover losses at energy prices set by agreements between the parties (KEK-TSO and KEK-DSO). KEK offers its surplus of electricity in the free and competitive market based on the Procedure for Electricity Trading.

HPP Ujmani, as a publicly owned generator, until May 2019, has provided the produced energy to KESCO for customers who are entitled the universal service. While from May 2019, HPP Ujmani through the tendering process, and respecting the Procedure for Electricity Trading, offers all its production in the competitive market.

RES generation is treated with priority in dispatching, with incentive prices for RES within the Support Scheme guaranteeing a 10-year contract for the generation of electricity from water sources, respectively 12 years for the generation of electricity from wind sources and photovoltaic panels, while RES outside the Support Scheme offer their generation in three forms:

- with relevant (reference) prices set by ERO on annual basis, according to the Regulated Framework;
- with prices agreed between the parties in accordance with existing agreements and with the approval of ERO; and
- with prices based on a competitive market.

5.1 Competition in the wholesale market

ERO through the Guideline on Market Liberalization has initiated the opening of the wholesale market by adapting it to the circumstances of the energy sector in Kosovo.

Among the basic elements that ensure a competitive and liquid market are:

- supply and demand (sufficient number of buyers and sellers);
- non-discriminatory access of the Third Party to the network;
- proper handling of subsidies in line with State Aid.

The wholesale electricity market faces: lack of day-ahead market, lack of sufficient active suppliers, lack of full implementation of the Guideline on Market Liberalization, as well as obligations arising from the Bulk Supply Agreement between KEK and KESCO/KEDS. HPP Ujmani since May 2019 offers its production in the free market, but the impact of this generator in the wholesale market is small as its share in the energy produced in the country is about 2%.

Since August 2018, the procurement of electricity for import and export is carried out by respecting the **Procedure for Electricity Trading**, such as: call for tender, communication with participating parties, sufficient number of traders participating in auctions, the most economically advantageous price, trading schedules, etc., as well as applying the EFET framework agreement.

Kosovo and Albania are in the process of establishing a joint APEX energy exchange, as well as merging the day-ahead markets, which supports and helps the increase of competition and market liquidity. The level of competition and liquidity increases with the operation of the 400 kV line between Kosovo and Albania, which is not yet in operation because KOSTT is not yet a member with complete rights at ENTSO-E. The non-operation of this line, among other things, affects the unwillingness of suppliers to operate in the market, resulting in reduced competition.

6. Retail electricity market

According to the legislation in force, electricity supply is an activity independent of electricity transmission and distribution activities which covers the purchase and sale of electricity, including resale to customers with the right of universal service and those at deregulated prices.

In order to support competition in the retail market, the electricity market has undergone reforms, adapting to the requirements of the relevant European directives. One of the effective reforms in our market is the possibility for the customer to switch their supplier, which is provided through the **Supplier Switching Rule**⁵, approved by ERO in October 2016. Through this, customers can switch the supplier, which directly affects bringing suppliers to the market and at the same time encouraging competition and liquidity in the electricity market.

In the retail electricity market, purchasing energy can be a complicated process, especially for customers who do not have sufficient knowledge of the energy sector. From the experience of opening the retail market in other countries, informing and educating customers is the key factor for the functioning of a competitive and transparent market. So far, ERO has licensed 8 legal entities for retail electricity supply, which have met the criteria for this activity, which are: KESCO, HEP Energjia KS, GSA Energy, Future Energy Trading And Exchange Dynamics, Jaha Company , Kosovo Energy Corporation-KEK, SharrCem, and Enerco LLC. However, except for KESCO which serves about 600,000 customers (100% of them), there are no other active suppliers in Kosovo.

6.1 Competition in the retail market

The presence of competition in the markets results in significant improvements in the productivity and internal efficiency of electricity companies, but the main beneficiary in this process is the final customer.

Competition should in principle contribute to the efficiency of the system, facing customers with real costs of electricity generation, transmission and distribution. At the same time, trading companies can offer more stable prices and insurance mechanisms for those customers who are not willing to take a risk in the short term. The process of market liberalization at the level of retail electricity supply is supported by rules such as: Rule on Determination of Revenues for Universal Service Supplier, Rule on Supplier of Last Resort and Supplier Switching Rule.

Effective competition in the retail electricity supply market is mainly conditioned by competition in the wholesale supply market in Kosovo and mainly at the generation level. Given the obligations arising from the **Bulk Supply Agreement** concluded between KEK and KEDS (KESCO), this results in limited liquidity in the retail market, as well as liquidity in generation, which also hinders competition.

⁵ http://ero-ks.org/2016/Rregullat/Rregulla_per_Nderrimin_e_Furnizuesi_eng.pdf

To take a closer look at the problems and obstacles of suppliers, ERO has conducted a survey with licensed suppliers in Kosovo, through which it has managed to obtain results related to the level of competition in the market.

The results obtained from this survey show that one of the obstacles to the development of competition in the electricity market is the Bulk Supply Agreement concluded between KEK and KEDS, upon the privatization of KEDS as a distribution system and supply operator. Also, according to the survey results, the lack of access of suppliers to sufficient information about the load profile of electricity customers in Kosovo also has an impact on low competition.

In order to improve competition in the retail electricity market in the country, ERO with the assistance of the National Association of Regulatory Utility Commissioners - NARUC⁶, is working on the creation of the electricity Price Comparison Tool (PCT), which will enable customers, in an open market, to have a reliable source to compare the prices that electricity suppliers will offer.

⁶ NARUC – is the National Agency of Regulatory Utilities Commissions *of the United States of America*
<https://www.naruc.org/>

7. Herfindahl – Hirschman Index (HHI)

In order to evaluate the level of competition in the electricity market in the country, the Herfindahl-Hirschman Index (HHI) was applied, which measures the market concentration in order to determine whether the market is competitive or has a monopoly tendency. The value of HHI varies from 0 to 10,000, and the higher the value of the indicator, the more concentrated the market is. The index can be 10,000 if there is only one active market participant in a monopoly position on the part of the supplier. When the value of the index is above 5,000, the market concentration is very high, while even an index value above 1,800 is considered a high value. This value can be considered to be a threshold, as the market concentration on this value can lead to the possibility of abusing a dominant market position. An HHI index value between 1,000 and 1,800 indicates a moderately concentrated market, while an index below 1,000 indicates that the market is deconcentrated.

The wholesale electricity market is dominated by KEK generator which covers about 90% of the domestic market demand, while the rest of the market demand is covered by other domestic generators and import. Also, based on the obligations arising from the **Bulk Supply Agreement**, KEK will sell to KEDS all electricity that can be supplied from its facilities, which KEDS may request from time to time under this Agreement. This limits the real opportunities for competition in the wholesale electricity market, and reduces the possibility of suppliers' activity on equal terms in the market.

According to the current situation of the wholesale energy market, the HHI Index turns out to be 9,115, which indicates that there is a very high concentration of production in the market.

The result of HHI measurements for the level of competition in the retail market in the country is 10,000, therefore based on the values of the indicators of this index, ERO finds that the retail market in the country is highly concentrated, since, although there are 8 licensed suppliers, only one of them (KESCO) operates in the market, and has 100% market share.

8. Conclusions

Based on the primary legislation of the energy sector (which is partially in line with European Directives), as well as the criteria for evaluating competition in electricity supply, ERO has prepared this report on evaluating competition in the electricity market in Kosovo.

Also according to the requirements of the legislation, ERO and KCA are obliged to sign a memorandum of cooperation as well as to monitor competition and prevent anti-competitive practices in the electricity sector. However, so far no such memorandum has been signed.

Based on the analysis of the competition criteria set out in the Decision of ERO, V_342_2011, including the results provided by the market concentration measurement indicator (HHI) for the current market situation, as well as based on the findings of this report which includes the analysis and research conducted regarding the functioning of the market and the level of competition, ERO has drawn the following conclusions:

Electricity generation capacities in Kosovo are mainly from power plants which account for about 95% of domestic production, and the rest are hydropower plants, wind plants and photovoltaic panels.

The largest existing producer (KEK), is the participant with the largest share of production in the energy market in the country. KEK has a **Bulk Supply Agreement** with KESCO/KEDS through which it is obliged to provide all the energy needed to supply the customers who are entitled the Universal Service with priority to KESCO as USS, while the rest of the energy is provided to cover system losses, according to the instructions in the letter of ERO "Handling of Wholesale Energy". It should also be noted that electricity surpluses (after covering the demand of customers with the right to universal service and system losses), are offered by KEK in the free and competitive market based on the Procedure on Electricity Trading, where all suppliers can participate equally.

HPP Ujmani is the generator which is subject to the criteria of full competition, and carries out the sale of energy according to the Procedure on Electricity Trading. The impact of this generator on the wholesale market is small given that its share in the locally produced energy is only about 2%.

Production from Renewable Electricity Generators is not handled according to the principles of free and competitive market, because these generators have agreements for sale and purchase of energy according to the Support Scheme with feed-in tariffs, and also their impact is small on the competition level.

Even the non-recognition of KOSTT as a regulatory area, and as a result, the non-operation of the 400 kV cross-border line Kosovo-Albania, in addition to limiting the operating capabilities of suppliers in Kosovo, complicates the process of merging day-ahead markets Kosovo-Albania which has an impact on the competition and liquidity of the energy market in Kosovo.

So far, 8 (eight) suppliers are licensed, but currently all customers are supplied by the only active supplier (KESCO), including customers entitled the universal service at regulated prices, as well as customers at deregulated prices.

Despite that with the legislation in force customers are guaranteed the right to switch their supplier, in practice this is almost impossible, since, as mentioned above, KESCO is the only active Supplier.

Also, the partial implementation of the Guideline on Market Liberalization; low prices for the supply of customers with the right to universal service, as well as the obligations arising from the **Bulk Supply Agreement**, may have an impact on reducing competition.

Based on the findings stated above and the results obtained from the survey conducted with licensed suppliers in Kosovo, as well as based on the results obtained from the Market Concentration Measurement Index (HHI), ERO concludes that the concentration in the wholesale and retail energy market is very high, which means that the energy market in the country for the period under review is facing a **lack of competition**.

Based on the results of this report, the following are the recommendations regarding the actions that shall be undertaken regarding the competition in the electricity market in Kosovo:

- ERO in cooperation with the KCA shall initiate an investigation regarding the observance of the procedure for energy trading by market participants related to electricity trading;
- KCA shall initiate an investigation (since according to BSA, ERO is not the *competent authority*, see appendix 1, part 1, definitions) which has to do with the impact of the BSA on the electricity market in the country, given that this agreement can have an impact on competition
- Intensify the removal of customers from the Supply at regulated tariffs according to the Guideline for Liberalization of the Electricity Market;
- Continue with the creation of the Electricity Price Comparison Tool which is considered as a reliable source to compare the prices that will be offered by electricity suppliers.

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