



**Energy and Water Regulatory Commission (EWRC)
Bulgaria**

**Annual Report
to the European Commission**

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1. Foreword

The present document represents a national report elaborated by the Energy and Water Regulatory Commission (EWRC, the Commission) to the Agency for Cooperation of the Energy Regulators and the European Commission in pursuance of the reporting obligations under art.37, para 1b, item d of Directive 2009/72/EC and art.41, para 1b, item d of Directive 2009/73/EC. The structure of the Report follows the one suggested by CEER.

In 2014 a procedure for amending the Energy Act was initiated and part of the proposals was adopted at the beginning of 2015. Changes were made to ensure the independence of the Regulator. The adopted amendments provide greater independence in terms of work organization and determine the necessary financial elements for effective realization of the regulatory objectives. Appointment and dismissal of the Commission's members is done as proposed by the National Assembly and in line with the Administration Act, this entails defining the Commission as commission and not as a state commission under the Council of Ministers. In this regard, since March 2015 the State Energy and Water Regulatory Commission is renamed as Energy and Water Regulatory Commission (EWRC).

The factual unbundling of Electricity System Operator EAD (ESO) from National Electric Company (NEK) EAD was finalized in 2014 - a necessary step towards an integrated internal market with a target date 2015 and pursuant to Art. 81d et seq. of the Energy Act (EA), a process about the certification of ESO as an independent transmission operator started.

During the year EWRC took a number of steps to develop transparent rules for the organization of a balancing market and a power exchange in order to meet the requirements of the abovementioned Directives of the European Commission. In this regard, the Electricity Trading Rules (ETR) adopted on 9 May 2014 were supplemented and amended. Under the amended ETR, the independent transmission operator should announce to all balancing coordinators groups the date on which the conditions for applying these rules are met. Recognizing the need to balance all electricity transactions as the sole prerequisite for transparency and equality in defraying the balancing costs by all electricity market participants, ESO EAD announced 1 June 2014 as the starting date of the balancing power market. The balancing market encompasses all commercial participants in the chain production, transmission, distribution and end-customers and is the main and most important step to the further organization and operation of the power exchange and an essential condition for fulfilling our country's commitments of full electricity trade liberalization. With the introduction of hourly schedules in transactions' negotiating and balancing in both free and regulated market, the main technical prerequisite for trade realization following the exchange principle is currently in place in Bulgaria.

In 2014 a license for "organization of a power exchange market" was issued to Independent Bulgarian Power Exchange EAD (IBEX). With the actual launch of the power exchange it is expected one of its main objectives to be achieved, namely the efficient electricity market operation.

EWRC has initiated the launch of a negotiation process between NEK EAD as a public provider and generators at long-term power and availability purchase agreements (PPA) in order to bring the price formation mechanisms in line with the European Union law, as the agreed pricing mechanism does not correspond to the principles and objectives of the Third

Energy Package, creating conditions for the removal of barriers to competition in the energy market.

Decisions taken in 2014 are compatible with the European electricity market target model and it is an important step towards an integrated European energy market. This will combine prices in different markets and make more efficient use of interconnectors. It will bring us closer to a sustainable and competitive internal energy market - a market that will gain momentum next year and the years after it.

The certification process of the transmission network operator Bulgartransgaz EAD went on during the year, assuming the role of an independent transmission operator in pursuance of the independence requirements and this certification procedure has been finalized in 2015.

In 2014 the Regulator approved a Methodology for determining the price of access and transmission through the transmission system and Guidelines on the pricing of access and natural gas storage in storage facilities, applying the rate of return on capital regulation method.

In pursuance of Art. 21 para. 1, item 9 of EA and to fulfill the energy market liberalization requirements and complete transposition of Directive 2009/73/EC, the Commission has taken the necessary actions and has initiated a procedure for adoption of Natural gas Trading Rules. A public consultation was conducted in early 2014 on the draft Natural gas Trading Rules with stakeholders to express their suggestions and opinions. After the public consultation and the adopted by the Commission Decision new circumstances have occurred, essential for the settlement of the public arrangements, subject to the draft Natural gas Trading Rules. Regulation (EU) № 312/2014 of the European Commission of 26 March 2014 on the establishment of a Network code for balancing the gas transmission networks has been adopted. Given the changes in European legislation and the analysis of the received opinions and suggestions, with a view to adjust the Draft Rules with Directive 2009/73/EC as regards the rules relating to the natural gas market organization and operation, and with Regulation (EU) № 312/2014 regulating the natural gas market balancing rules, again relevant amendments to the Draft Rules were made. The Natural gas Trading Rules adoption procedure was finalized in July 2015.

The realization of the gas interconnection Greece - Bulgaria (IGB) is of particular importance and it will directly connect the national transmission systems of Greece and Bulgaria. The project aims to diversify the natural gas supply sources to Bulgaria and Southeastern Europe. IGB Interconnection has been defined as a project of national significance in both Bulgaria and Greece and is listed as a project of common interest (PCI) by the European Commission.

EWRC will continue in 2015 to carry out reforms in the energy sector related to the Regulator itself and the sectors subject to regulation. We are convinced that our regulatory actions will result in significant benefits for consumers and market participants.

Assoc. Prof. Ivan N. Ivanov, PhD
EWRC Chairman

2. Main developments in the gas and electricity markets

2.1. Main developments in the electricity market

The requirements of the European Union Third Liberalization Energy Package and the Bulgarian legislation stipulate that the electricity market is to be liberalized and gradually integrated with those in other European Union (EU) member states. In line with Directive 2009/72/EC and under the Energy Act (EA), the electricity market in the Republic of Bulgaria has been fully liberalized since 1 July 2007 with a stepwise liberalization process and currently electricity trade in Bulgaria is realized in two market segments – freely negotiation prices and regulated prices. In 2014 the Bulgarian electricity market operated under a hybrid model, where part of low voltage customers trades were concluded at regulated prices approved by EWRC and the rest was traded in the liberalized market at prices negotiated with customers connected to middle and high voltage and part of low voltage industrial customers.

In 2014 EWRC, within its competence, took a number of steps to develop transparent rules for organizing the balancing energy market and the power exchange in order to meet the requirements of the above Directives of the European Commission. In this regard, new Electricity Market Rules were adopted on 26 July 2013, supplemented and amended on 9 May 2014, thus creating the necessary conditions to start the electricity balancing market and power exchange.

As a result of legislative changes, at the end of March 2014 a license for the activity “organization of electric power exchange market” was issued to Independent Bulgarian Power Exchange EAD (IBEX) and since June 2014 the balancing market has been launched following EWRC decision in February 2014.

Since the beginning of 2014, ESO EAD is the owner and operator of the HV electricity transmission network in the country and is a license holder for the activity “electricity transmission”, including coordination of special balancing groups for a period of 35 years. The transformation of NEK EAD and ESO EAD relates to the implementation of the obligations under the Energy Act about legal, organizational and financial unbundling and restructuring activities in connection with the requirements of Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 on the common rules for the internal electricity market.

In June 2014 in Ljubljana a Memorandum of Understanding between the Agency for the Cooperation of Energy Regulators (ACER) and national regulatory authorities was signed on the sharing of information under Article 10 (1) of Regulation (EC) № 1227/2011 (REMIT) and an Agreement on the level of services in the Centralized European Register of Market Participants (CEREMP).

2.2. Main developments in the gas market

In connection to the Third energy liberalization package transposition and the Energy Act amendment in 2012, SEWRC adopted regulations and rules in 2014.

In 2014 EWRC approved a Methodology on pricing of natural gas access and transmission through the gas transmission networks owned by Bulgartransgaz EAD, as well as Instructions on the pricing of natural gas access and storage in storage facilities applying the “rate of return on capital” regulation.

In 2014 the certification procedure about Bulgartransgaz EAD as an independent transmission operator continued, investigating the compliance with the independence requirements.

In the same year the draft Natural Gas Market Rules have been revised in order to reflect the stakeholders' opinions.

Under the EA and the Rules on provision of access to the gas transmission and/or gas distribution networks and in compliance with the European Directive for full natural gas market liberalization, all consumers since 01 July 2007 have the right to choose their natural gas supplier.

Natural gas supply on the territory of the Republic of Bulgaria is carried out over a gas transmission network owned by Bulgartransgaz EAD and over gas distribution networks owned by the respective gas distribution companies. In the territory of the country, a transit gas pipeline has also been constructed, owned by Bulgartransgaz EAD and it transports natural gas to the territories of Greece, Macedonia and Turkey. The public provision activity is carried out by Bulgargaz EAD. The natural gas at the entry of the gas transmission network is provided based on agreements with a foreign provider.

Pursuant to EA, natural gas public provision and supply are services of public interest and as such they are performed by specially licensed companies.

The activity natural gas public provision is carried out by Bulgargaz EAD under a license issued by EWRC. The needs of the Bulgarian gas market are met mainly by supplies from Russia based on contracts between the public provider Bulgargaz EAD on one side and Gazprom Export OOO on the other. The share of domestic production in satisfying these needs is negligible. Bulgargaz EAD has signed a natural gas sales contract with Petroceltic EOOD for the domestic production.

Bulgartransgaz EAD is the license holder of licenses for the activities of natural gas transmission and natural gas storage. The company owns and operates the transmission and transit gas pipelines – high pressure, as well as the underground gas storage facility (UGS) Chiren.

Key customers for the natural gas transmission service through the gas transmission and distribution networks in the country are the public provider Bulgargaz EAD and Overgas Inc. AD. The public provider is also the main customer for the gas storage service.

Gas demand in the country is provided mainly by the import of one single source the Russian Federation. Natural gas reaches Bulgaria following the direction Russia – Ukraine – Moldova – Romania. Currently Negru voda 1 gas metering station (GMS) is the only one entry to the gas transmission network for gas import and 93.5 % of the incoming gas quantities needed for the country in 2014 were transported through it. The gas transmission network is fed with domestic production too, but the developed fields have limited resource and in 2014 they provided 6.5 % of the country annual consumption. The national gas transmission network has two points, where local extraction companies' pipelines are connected - GMS Provadia for gas entering the system from the Black Sea shelf and gas distribution station (GDS) Pleven, for minor production amounts from the country inside.

In shortage cases at the transmission network entry points in the country, UGS Chiren plays the main role in providing natural gas and compensates the seasonal fluctuations in demand and provides emergency reserve. The gas storage has been founded at the site of the same name already exhausted gas-condensate field.

Natural gas distribution is carried out by regional and local gas distribution companies operating in a licensing regime and price regulation for the activities natural gas distribution and supply. Clients of gas distribution companies are mainly households and small and medium enterprises.

Extraction companies and the two main users groups (distribution and supply licensed companies and non-household customers connected directly to the transmission network) are connected to the transmission network of Bulgartransgaz EAD.

Main natural gas market participants in the country are:

- Bulgartransgaz EAD – combined gas operator, responsible for the activities natural gas transmission and storage;
- Bulgargaz EAD – Bulgarian public provider, responsible for the natural gas provision at prices and terms regulated and approved by EWRC;
- Natural gas traders – conclude gas supplies trades with the public provider, end suppliers, customers, other natural gas traders, extraction companies, natural gas storage companies and with the combined operator;
- Gas distribution companies – combining the activities “supplies by end supplier” and “natural gas distribution”, they supply natural gas to customers connected to their networks. The construction and development of distribution networks is their commitment either, in accordance with approved by EWRC long-term business plans and conditions;
- Non-household natural gas customers connected to the transmission network;
- Non-household natural gas customers connected to the distribution networks;
- Household natural gas customers.

Market potential and development prospects

Based on long-term contract, Gazprom eksport OOO has reserved a substantial part of the gas transit network capacity, using the natural gas transportation service through the territory of Bulgaria from the entry point on the border with Romania to the border points with Turkey, Greece and Macedonia.

The natural gas storage capacity of UGS Chiren and the domestic production are the main alternatives in terms of security of supply in case of interruption in imports from the main entry point Negru voda 1, since as of the beginning of 2014 there still has been insufficient degree of competition in the gas sources for the national gas market.

It is expected that in the coming years the number of entry points, through which gas enters into the gas network, is going to increase significantly related to the development of interconnection projects with Romania, Greece, Turkey and Serbia. They will provide opportunity for natural gas supply from various sources, which in turn will contribute to enhance competition and will have a positive effect on natural gas consumers. New gas connections will significantly increase the entry capacity to Bulgaria from Greece and Turkey and will alongside provide access and gas supplies from LNG terminals in these countries, either.

The following other potential gas projects are considered in the region and they could affect market development, enhance diversification and security of gas supply and respectively infrastructure development:

- South Stream – currently suspended;
- Eastring preliminary project for the realization of bidirectional natural gas supplies through the territory of Slovakia, Romania, Bulgaria, Hungary, Czech Republic and Austria;
- transportation corridor Bulgaria – Romania – Hungary - Austria.

The local production share is expected to increase in the next 10-15 years due to increased exploration of local gas reserves and deposits development concessions in the

country (both land and in the Black Sea shelf), including the proven resources in block A-Lovech – Koynare, Deventsi plot by sweeping of drillings and their testing, and after proving the potential of Galata block.

As of the end 2014, UGS Chiren was a storage facility of local importance as a major security of supply tool, but the long-term perspective is for it to be transformed into a commercial storage facility. It is envisaged the underground gas storage to play an essential role in competition development and to increase natural gas consumers benefits in the integrated and interconnected regional market. The development of the planned interconnections with Turkey, Greece, Romania and Serbia will increase market integration in the region and is a prerequisite for UGS Chiren to have an increasingly important role in providing additional flexibility of transmission systems at regional level, a significant contribution to congestion management and seasonal use optimization of gas transmission systems. To this end, there is an ongoing project about its expansion, which is the first step towards the storage capacity expansion concept in the region and is defined as Project of common interest.

The household gas supply share in the country is still low, compared to other gas markets, but has a tendency to increase. A consumption growth is registered in the compressed natural gas demand too. Promotion of gasification by extending the gas network to new regions and ensuring natural gas access to new municipalities, distribution companies and new non-household customers are among the priorities in Bulgaria's Energy Strategy.

Bulgaria has a strategic geographical location, well-developed gas infrastructure and with the implementation of the new planned projects that are underway, it has the potential to become one of the key components of achieving routes and sources diversification of gas supplies in the region.

3. Electricity market

3.1. Networks regulation

3.1.1. Unbundling

Article 9 of Directive 2009/72/EC requires the guaranty of the unbundled activities of transmission, supply and generation of electricity and any form of control among the companies performing these activities to be excluded.

By the transposition of Directive 2009/72/EC at the amended EA, Art.21, para.1, item 27, the power of EWRC to certify the transmission system operator was regulated regarding operator's compliance with the independence requirements, to monitor these requirements fulfillment and to send the respective notifications to the European Commission. In art.81 a, para.1, SEWRC's power is further developed by introducing the possibility to open a certification procedure officially or at the request of the transmission operator, as well as at the motivated request of the European Commission. Certification or the reject of certification is adopted by a Regulator's draft decision within four months of the certification application submission date or of the proceedings initiated at the operator's request or at EC request. In case the Regulator does not act expressly in the cited period, it shall be considered that the draft certification decision is adopted.

Regarding the certification of transmission systems owners or transmission systems operators, which are controlled by person or persons by third states, Directive 2009/72/EC in art.49 „Transposition“ delays this process, as the procedure under art. 11 of the Directive is

due to be applied as of 3 March 2013. In the light of the foregoing, EWRC has not performed certification of such entities. Despite this fact, the certification procedure of such entities and the grounds for applied rejection are expressly envisaged in the legislation (art. 81 b of EA).

By Protocol № 71-2013, the Board of Directors of Bulgarian Energy Holding EAD (BEH EAD), in its capacity as sole shareholder of NEK EAD and ESO EAD decided to reorganize by unbundling from NEK part of its property that constitute a set of rights and obligations related to the activity “electricity transmission” and its transition to ESO EAD as a receiving company.

By Decision № P-205 of 18 Dec 2013 EWRC:

1. Allows NEK EAD transformation by unbundling from NEK part of its property that constitute a set of rights and obligations related to the activity “electricity transmission” and its transition to ESO EAD as a receiving company;
2. Terminates license №JI-147-04/17.12.2004 for the activity “electricity transmission” issued to NEK EAD;
3. Grants to ESO EAD license №L-419-04/18.12.2013 for the activity “electricity transmission” for a period of 35 years;
4. Terminates license №L-221-17/28.12.2006 for the activity “electricity system management” issued to ESO EAD.

EWRC decision is consistent with the Energy Act, which introduces the requirements of Directive 2009/72/EC to have separate independent transmission operator that owns the transmission network and to carries out the activity “electricity transmission”. Thus prerequisites are ensured for compliance with the purposes and principles of EA regarding quality and secure electricity supply for the public, ensuring the protection of citizens’ life and health, property, environment, security of supply, consumer and national interests and establishment and development of a competitive and financially stable energy market.

Pursuant to the requirements of EA, since the beginning of 2014, ESO EAD is the owner of the assets related to electricity transmission, including the transmission network; it has its own identity, separate headquarters and staff and uses its own equipment needed and legal, accounting and information services. ECO EAD has all the human, technical, physical and financial resources needed to carry out the electricity transmission activity. The Company has the right to take decisions independently of the vertically integrated undertaking with respect to assets necessary to operate, maintain or develop the transmission network, as well as powers to propose binding for the General Assembly decisions on raising funds in the capital market through borrowing or increased capital.

ESO EAD unbundling as grid owner allowed the company to launch its certification process as an independent transmission operator, which represents a further step in the development of a competitive and financially stable energy market according to the requirements of the Third energy liberalization package. In this regard, in November 2014 ESO EAD filed a certification application to be certified as an independent transmission operator and about the fulfilment of the independence requirements pursuant to art. 81d et seq., in conjunction with §192 of the TFP of the Act on Amending and Supplementing the Energy Act, Art. 98 et seq. of Ordinance №3 of 21 March 2013 on licensing the activities in the energy sector (OLAE, Prom. SG. 33 of 5 April 2013) and in line with paragraphs 4, 5 and 6 of Art. 10 of Directive 2009/72 / EC and Art.3 of Regulation (EC) №714/2009.

In the present 2015 EWRC adopted a draft decision on the certification, which was sent for notification to the European Commission.

3.1.2. Technical operation

Provision of balancing services

Electricity market organization and operation in the country are regulated by the Electricity Trading Rules and Auction rules on procurement and allocation of transmission capacity on the interconnections in the control area of ESO EAD and the neighbouring control areas for 2014. The electricity market in the country is organized on a market basis and is administered by ESO EAD.

Electricity market development in 2014 passed through two stages: up to 1 June 2014, when hourly forecasting and balancing were applied only to participants registered on the free market, and after 1 June 2014, when the hourly market was launched for all electricity transactions, applying common balancing conditions for standard, special and combined balancing groups. This allowed ESO EAD to determine for each period of settlement the amounts involved in balancing the electricity system (EPS), respectively, the company's costs for balancing.

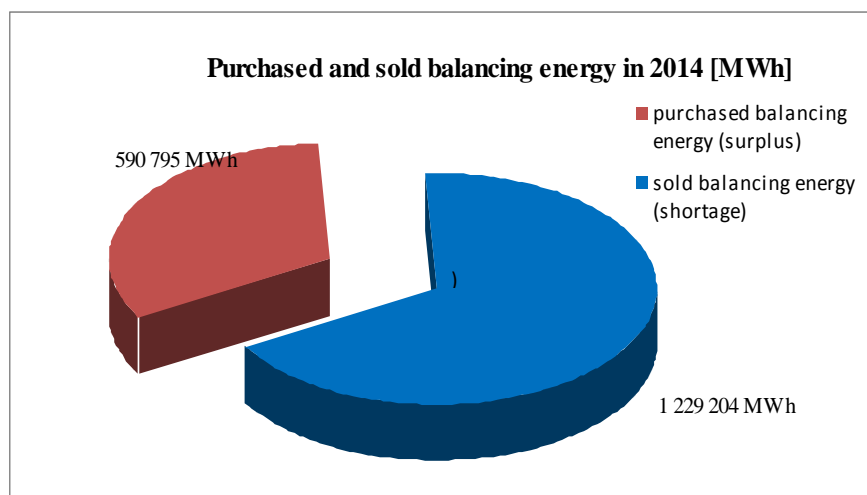
ESO EAD maintains a register on its website about the active balancing energy suppliers from primary, secondary and tertiary regulation and activated cold reserve blocks. The independent transmission operator maintains the balance of the EPS according to technical and economic criteria based on balancing market bids and offers. Balancing energy suppliers are all generators who operate adjustable units. Balancing energy price is set under a mechanism regulated by EMR and a methodology, an integral part of them.

Since 1 June 2014 the hourly market was launched for all electricity transactions, applying common balancing conditions for regular, special and combined balancing groups. It encompasses all commercial participants in the chain generation, transmission, distribution and end-customers and is the main and most important step to the further organization and operation of the power exchange and an essential condition for fulfilling our country's commitments of full electricity trade liberalization.

Main operational principles of the balancing market are:

- Submission of hourly schedules for all transactions, notwithstanding whether they are concluded at regulated or freely negotiated prices;
- Notification of schedules on a daily basis on the day preceding the delivery (D-1);
- Introduction of balancing groups in the market structure and new registration procedure for balancing groups coordinators;
- Introduction of a separate settlement for balancing group coordinators and balancing energy providers;
- Additional costs for market participants arise when their stated hourly schedules for generation/consumption differ from their actual generation/consumption. The amount of these costs depends on two factors: forecasting accuracy and balancing energy pricing.

Following the balancing market launch, the total power shortage and total power surplus increased significantly. The common power shortage in 2014 was 590 796 MWh, compared to 79 677 MWh in 2013 and represented 3.2 % of the registered schedules. The energy to cover the energy surplus in 2014 was 1 229 204 MWh, compared to 249 421 MWh in 2013 and represented 6.3 % of the registered schedules.



Balancing energy price is set for each settlement period as two balancing energy prices. The average 2014 energy shortage price was 199.13 BGN/MWh, compared to 186.33 BGN/MWh in 2013. The average energy surplus price was 15.46 BGN/MWh, compared to 28.27 BGN/MWh in 2013.

In the table below, concrete electricity price values traded on the balancing market are presented for 2014.

Top-up energy	
Minimum price, EUR/MWh	0,00
Maximum price, EUR/MWh	1873,41
Average price, EUR/MWh	199,13

Spill energy	
Minimum price, EUR/MWh	215,69
Maximum price, EUR/MWh	110,90
Average price, EUR/MWh	15,47

Pursuant to Methodology on balancing energy price setting (the Methodology), these prices are set based on the prices provided by balancing energy suppliers, upward and downward regulation energy, activated for the EPS balancing and the realized imbalances of market participants for each settlement period.

After the balancing market launch EWRC received a significant number of complaints related to this market functioning. The Commission has carried out an inspection and a data survey on the reached extreme values of the balancing energy price shortage and negative surplus. In this regard, in 2014 EWRC and ESO EAD took action to optimize the Methodology, in order to reduce the balancing costs along the chain to the end user. By Decision № C-26 of 19 Dec 2014, the Commission set price caps for transactions on the balancing energy market: price cap for transactions on the balancing energy market for upward regulation at the amount of 202.00 BGN/MWh and price cap for transactions in the balancing energy market for downward regulation at the amount of 0.00 (zero) BGN/MWh.

The necessity of setting price caps is justified by the lack of sufficient competition among market players offering balancing energy, and therefore conditions created for offering negative downward regulation prices and unrealistically high upward regulation prices, leading to distortion of the balancing market, extreme values of balancing energy and high costs for imbalances of producers and consumers.

As a result of the actions taken more favourable conditions for balancing the participants have been achieved, thus overcoming extreme prices for energy shortage, eliminating negative prices for surplus energy and ultimately, reducing the difference between the two imbalance prices.

Since September 2012 standard balancing groups' coordinators have joined the electricity market and since 1 June 2014 – special and combined balancing groups' coordinators. As of 31 Dec 2014 the register of balancing groups' coordinators included 20 standard group coordinators, 13 special groups' coordinators and 4 combined groups' coordinators.

Security and reliability standards, quality of services and supplies

Regarding the security of supply and guaranteeing the compliance with the requirements of services quality and electricity supplies, EWRC monitors and yearly carries out a review of the fulfillment of the adopted in 2010 „Methodology for reporting the fulfillment of the target indicators and electricity quality indicators control and service quality of network operators, public providers and end suppliers“. To guarantee the consumers interests it is envisaged for EWRC to adjust the revenue requirements of the energy company every price period of the regulatory period depending on the energy quality indicators fulfillment and on service quality during the previous year. In 2010 a correction factor was applied for the first time, reflecting the fulfillment of the adopted energy quality and service quality target indicators.

As a quality indicator in these relations, the response time or the time for taking the necessary corrective measures by the energy utilities is taken into consideration, the same being divided into: general indicators for quality of commercial services and guaranteed indicators. The guaranteed indicators have been laid down as commitments in the General Conditions of the contracts for sale of electricity and General Conditions of the contracts for transmission of electricity to consumers over the electricity distribution networks of the end supplier approved by the Commission.

In applying the Ordinance on regulating the prices of electric power, a generalized adjustment ratio is applied, including the performance of the target values for quality of energy, for non-interruption of supply and for the quality of service specified in the Methodology.

In case of non-fulfillment of the target values, the revenue requirements of the companies are reduced by a maximum negative adjustment set by a decision of the Commission for each year of the regulatory period.

The implemented regulatory mechanism for adjustments in the revenue requirements of the distribution companies and according to the achieved fulfillment of the power quality indicators represents an incentive for the companies to improve the electricity supply quality.

The value of the maximum negative adjustment is linked to the expected return which the company will have on the investments made in order to improve the indicators.

Thus the Methodology provides incentives for the distribution companies to develop and invest in their networks, and the monitoring of the regulator for the fulfillment of service

and supply quality requirements is in compliance with Article 37 (1) (h) of Directive 2009/72/EC.

Monitoring time taken to connection and repair

The Energy Act regulates the duties of the transmission and distribution companies to connect all generation and user entities to the relevant network. Under art.116, para.7 of EA the terms and conditions for connection, suspension of connection or supply and the limits of property between electrical facilities, are defined by an Ordinance of EWRC. Instructions for the price-formation of connecting consumers to the electricity distribution network, general conditions of the contracts for electricity supply and distribution and the rules for work with consumers are approved by EWRC and are publicly available. They are placed at a prominent place at the clients servicing centres of the companies and on the websites of suppliers and distribution companies. Due to the considerable increase of the electricity capacities in the country in 2014, mainly coming from renewable energy, certain difficulties aroused concerning the connection of new capacities to the transmission and distribution networks due to limited capacity.

Average time needed for the elaboration of a preliminary contract and written statement about the conditions for connection of a consumer according to the grounded target indicators in the Methodology, is 30 days.

Information regarding connection complaints of new consumers enters EWRC every year. It represents mainly complaints concerning rejection or delay of connection to the distribution network, incorrectly set price or connection conditions.

Monitoring safeguard measures

Under the Energy Act, ESO EAD carries out unified operational planning, coordinating and managing of the electricity system. The main tasks to be performed by ESO EAD and associated with the centralized operational management of EPS, include operational management of EPS, power and energy regimes and electrical loads forecasting, generation capacities planning and EPS operational mode.

Participation in voltage control is the responsibility of all power generators connected to the transmission network, in line with the requirements of ESO EAD and the technical capabilities of their generation units. Participation in the preventing control of EPS is the responsibility of all users of the grid, in accordance with the EPS security plan requirements and the EPS recovery plan, electricity supply continuity, ENTSO-E requirements compliance and the electricity system management rules, with minimum loss of active energy in transmission and transformation.

The work of the managing and regulating systems in power plants and the automation system in substations are under constant control. Systematic tests are periodically organized and conducted in order to check the readiness of power plants to provide additional services and the implementation of the security recovery plans.

There were some cases of island mode operation of certain hydroelectric power plants (HPP) in 2014, due to grid repairs in autumn and adverse weather conditions during the winter period. The EPS operating modes are based on the principles to ensure the system's safe, secure and efficient operation.

All planning or coordination activities of ESO EAD in 2014 were based on load and power consumption forecasts and for the relative purposes: investment planning forecast period

more than five years, monthly annual planning, daily month planning, daily week planning, hourly day planning or internal day re-planning.

Maintaining electricity transmission voltage levels within the allowed limits, ensures reliable and safe EPS operation, the technical and economic characteristics of electrical equipment, sustainable operation of synchronous generators and is a condition for reducing losses in electricity transmission and transformation. Voltage control is done centrally by a “Voltage Schedule” that is monthly developed, set and monitored.

Assessment of expected maximum EPS load, transmission network bottlenecks under normal and repair schemes and options for voltage regulation in the limits of available technical means, is carried out by planning a winter maximum regime. It is prepared by the National Dispatching Centre (NDC) based on a perspective model, including the projected balance of generation capacities and of control days’ load readings. Based on this scheme measures are proposed to increase the transmission capacity of the electricity network and to avoid bottlenecks.

In November 2014 ESO EAD began to draft a Transmission Network Development Plan of the Republic of Bulgaria for the period 2015-2024, which was submitted in March 2015 for approval by EWRC.

Computational models, collecting and processes information daily, both within the National Dispatching Centre (NDC) and within ENTSO-E according to the procedure for the daily forecast of day ahead electricity system limitations (DACF - Day Ahead Congestion Forecast), are used to assess the security and operational planning mode of the transmission network. Up-to-date load flows allocation model results from the procedure, reflecting the neighbouring and the Bulgarian electricity system status, which contains: topology, load and generation. Based on this model, daily security checks of the electricity system operation and the “n-1” criteria compliance are made.

The parallel work of Bulgaria with neighbouring countries, members of ENTSO-E in 2014 was realized through interconnectors and was based on the principles of mutual benefit, solidarity and mutual assistance in emergency situations - to ensure safe, quality and efficient supply to electricity consumers. The existing Bulgarian electricity system interconnections ensure the necessary technical conditions for the exchange of significant amounts of electricity in normal and emergency modes.

In 2014 by Decision №165 of 28 Nov 2014 EWRC agreed Auction rules for the allocation and procurement of transmission capacity on the interconnections in the control area of Electricity System Operator EAD and the control areas of the neighbouring operators.

Regulation № 714/2009 the European Union provides for the system operators to apply market approaches in the management of congestion on the interconnectors, to publish the available transmission capacities and to allocate them on a yearly, monthly, weekly and daily basis in a transparent and non-discriminatory manner.

Through the established regional cooperation and the operational arrangements for the coordinated allocation of cross-border capacity, as well as the coordinated mutual support in emergencies, the safe and secure operation of both the internal and international electricity markets is guaranteed.

3.1.3. Connection and access network tariffs

In accordance with the adopted method of regulation, the Commission uses a different approach in assessing the economic effectiveness of the price components and the network tariffs regulation of the transmission network and of the distribution networks.

Transmission and distribution network tariffs to end consumers are approved by EWRC upon the companies' proposal in time and form specified under Ordinance № 1 of 18 March 2013 on electricity prices regulation. Different consumers' groups and tariff structures are specified according to companies' proposals and are grouped according to the voltage level and daylight zones. Network services are paid based on electricity consumption. Transmission services and access are paid by consumers connected to the electricity transmission networks, distribution companies, traders with export transactions and traders with transactions on behalf of a network services user.

In 2014, by Decision № C-12 of 30.06.2014 and Decision № C-16 of 1 Oct 2014, EWRC approved and accordingly changed the regulated electricity and network services prices after analysis and evaluation of the data reported by the electricity undertakings in the current pricing period, including analysis and evaluation of the reported general financial status, analysis of recorded technical and economic indicators, as well as analysis and assessment of the quality indicators and subsequently based on information and documents evidencing the potential significant deviation between the allowed by the Regulator estimated cost and those actually incurred by energy companies.

Transmission and access to the electricity transmission network

Regulating the network tariff for transmission through the transmission network, where the EWRC uses the method "rate of return" regulation without incentives, all price components are assessed annually when the new tariff is being approved. Due to the fact that in the country there is only one regulated HV electricity transmission company, there is no comparable basis on which costs evaluation to be done. Regarding the last, EWRC uses as an assessment criterion of the annual costs level the annually collected information and in addition, taking into consideration the specific circumstances concerning the legal requirements for security and technical security of supply.

In connection with the foregoing, the approved prices and pricing elements in 2014 for the activity of transmission and access to the grid are shown in the following table:

Pricing decisions		2013		2014	
		01.08.2013	30.12.2013	30.06.2014	01.10.2014
Transmission price	BGN/MWh	9.71	4.15	6.62	6.62
Annual revenue requirements	thou BGN	384 170	164 188	223 093	223 093
Regulated asset base	thou BGN	1 624 514	1 624 514	804 222	804 222
Rate of return on capital	%	3.99 %	3.99 %	2.67 %	2.67 %
Estimated power amounts for the regulated period	MWh	39 549 006	39 549 006	40 309 120	40 309 120
Access price	BGN/MWh	2.76	2.76	1.36	1.36
Annual revenue requirements	thou BGN	109 067	109 067	54 970	54 970
Regulated asset base	thou BGN	32 841	32 841	32 841	32 841
Rate of return on capital	%	6.83 %	6.83 %	6.83 %	6.83 %
Estimated power amounts for the regulated period	MWh	39 549 006	39 549 006	40 309 120	40 309 120

Table 1: approved prices and pricing elements in 2014 for the activity transmission and access in transmission network; Source: EWRC

Transmission and access to the electricity distribution networks

Regulating the network tariffs for the electricity distribution companies, the Commission applies incentive-based regulation. Through the application of the "revenue cap" method, the Commission approves the revenue requirements of the energy utility for the first year of the regulatory period and analyses them and adjusts them for each subsequent year of the regulatory period. The envisaged adjustments of the revenue requirements are related to the inflation rate, the efficiency ratio, the performance of the target quality indicators, the difference between forecast and actual expenses for the purchase of energy, as well as expenses incurred by the change in the consumption structure. In addition, indicators are applied to the methods, reflecting the quality of activity performance (electricity quality, service quality), in accordance with which the allowed revenue requirements of the energy utility are adjusted in view of the performance of the target indicators. The difference in the performance of the forecast investments and actual investments is also taken into account. The revenue requirements are reduced in accordance with the difference between the reported non-performance of the target indicators for quality and allowed deviation.

Technological costs

Calculations of the technological costs of electricity transmission and distribution companies are carried out according to Article 10, para. 5 and 6 of Ordinance № 1 of 18 March 2013 on electricity prices regulation, following a methodology approved by EWRC. In approving the prices of transmission and access to the transmission and/or distribution networks, the Commission assesses the cost of purchasing electricity for technological costs, cold reserve and ancillary services. By applying a common approach in approving the prices of the companies, EWRC has complied with both the findings of the current analysis of the results achieved and the regulation method objective - creating conditions for companies to reduce costs for the activity, while at the same time to ensure the necessary investments to improve the quality of services. Eligible technology costs are determined by a Commission's Decision under a methodology or guidelines adopted by it.

In determining the revenue requirements of electricity distribution companies, the amount of technological costs is allowed in accordance with EWRC's Instructions on pricing of electricity transmission through the distribution networks and the technological costs levels in 2014 were adjusted as a result of the analyses and assessment.

With the beginning of the new regulatory period for electricity distribution companies, the Commission set new technological costs target values according to the reports submitted by individual companies and they were as follows:

- CEZ Distribution Bulgaria AD – 8 %;
- EVN Bulgaria Electricity distribution EAD – 8 %;
- Energo-pro Bulgaria Networks AD – 9 %;
- ERP Zlatni Pjasatsi AD – 5%.

3.1.4. Cross-border issues

Cross-border infrastructure access, including capacity allocation and congestion management procedures

Auction rules on the conditions of access to the transmission network for cross-border electricity exchange for the regional cooperation of operators have been developed in relation to the requirements of Regulation (EC) 714/2009, by introducing common rules and procedures for the available transmission capacity allocation in the EPS interconnections of Bulgaria and its neighbouring countries. The purpose of these rules is to ensure optimal management of networks, promoting of energy exchanges development and coordinated allocation of cross-border capacity through non-discriminatory market-based solutions.

ESO EAD pursuant to art. 109, para. 1 item 3 of EA is obliged to provide the joint operation of the electric power system and the electric power systems of other countries in accordance with international treaties. Regulation (EC) № 714/2009 imposes an obligation on national regulatory authorities to ensure compliance with the Regulation and the guidelines adopted in accordance with Art.18 thereof, for the establishment of regional cooperation between transmission system operators (Art. 12 and Art. 13 of the Regulation). ESO EAD, in its role as an electricity system operator of the Republic of Bulgaria, and the neighbouring electricity system operators have signed Memorandums of cooperation regarding the operational management and the available transmission capacity allocation on the interconnections. Bulgaria has five neighbouring control areas (Greece, Romania, Serbia, FYROM and Turkey), for which annual, month and daily transmission capacity allocation auctions are carried out.

The procurement and allocation of the available transmission capacity on the interconnections is coordinated and carried out through the application of auction rules developed jointly by the Bulgarian electricity system operator ESO EAD and the neighbouring electricity system operators. The Auction Rules regulate in detail the registration and participation requirements, different types of auctions, organization and tender procedures, settlement of the auction results and granting transmission capacity rights (TCR) together with rules for their use, the TCR secondary market TCR transfer, settlement and payment requirements and deadlines, transmission capacities reducing principles, etc. EWRC in its capacity as a national regulatory authority and in line with art. 19 of Regulation (EC) № 714/2009, annually agrees Auction Rules for allocation of transmission capacity on the interconnections between the control area of Electricity System Operator EAD and neighboring control areas.

Cross-border transmission capacity calculation is done following a procedure approved by ENTSO-E. ESO EAD collects the interconnections schedules (so-called “external schedules”) of market participants and based on it the operator to prepares an hourly schedule for cross-border exchanges for the Bulgarian control area and coordinates them with the neighboring control areas system operators (Romania, Serbia, Macedonia, Greece and Turkey).

ESO EAD prepares and submits to North Coordination Centre in Brauweiler (Amprion GmbH) coordinated with other control areas and blocks hourly schedules, electricity exchanges (import and/or export), controls the execution of the technical conditions under signed commercial, non-commercial, bilateral and multilateral agreements for electricity sale and exchange.

National Dispatching Centre (NDC) reports, controls and coordinates the physical hourly, daily and monthly electricity exchanges on all interconnections (state border) with the respective system operators. It calculates the unscheduled electricity exchanges of the Bulgarian EPS in parallel operation to the synchronous area of Continental Europe and calculates and verifies the compensation schedules (programs) for their compensation.

According to metering data and calculated border exchanges in 2014, Bulgarian EPS received 4 319 338 MWh electricity from neighboring EPS, and exported 13 774 537 MWh. Coordinated electricity exports with Bulgarian origin by market participants (Bulgarian time) according to interconnection schedules data and declared amounts for 2014, was 9 501 994 MWh, representing an increase of 53.3% compared to 2013, when trade exports with Bulgarian origin were 6 198 982 MWh.

Auction rules were developed in line with Regulation (EC) № 714/2009 on conditions for access to the network for cross-regional cooperation between operators, by introducing common rules and procedures for the allocation of available transmission capacity (capacity) in both directions on the interconnections of power system of Bulgaria and neighboring power systems. The aim is to ensure optimal management of networks, promoting the development of energy exchanges and coordinated allocation of cross-border capacity through non-discriminatory market-based solutions.

Utilizing revenues for the interconnections

In pursuance of the provisions of art.16, para 6 of Regulation (EC) № 714/2009 of the European Parliament and the Council of 13 July 2009 on conditions for access to the network for cross-border exchange in electricity, any revenues resulting from the allocation of interconnections shall be used for the following purposes:

- a) guaranteeing the actual availability of the allocated capacity; and/or
- b) maintaining or increasing interconnection capacities through network investments, in particular in new interconnectors.

In cases, where revenues cannot be efficiently used for the purposes set out in the above mentioned items, they may be used, subject to approval by the regulatory authorities of the Member States concerned, up to a maximum amount to be decided by those regulatory authorities, as income to be taken into account by the regulatory authorities when approving the methodology for calculating network tariffs and/or fixing network tariffs.

Monitoring of national development plans and investment plans related to the 10-year plan for development of the electricity transmission network of ESO

The submitted in 2014 for approval by EWRC “10-year electricity transmission network development plan of ESO EAD” (10-year plan, the Plan) is part of the documents package required for the certification of ESO EAD as an independent transmission operator. In the 10-year plan two scenarios of development have been set out - the maximum and minimum. It is envisaged that the renewable energy sources share in gross final consumption in 2024 shall exceed 19% at the maximum scenario and 20% in the minimum scenario.

The maximum scenario of the operator predicts that in the present year the trend of increasing electricity consumption in 2014 will continue at a more moderate pace. A delay in the implementation of energy efficiency measures has been set. As of 2024 gross consumption is expected to reach 43 040 GWh. The estimated absolute maximum electrical load in Bulgaria in 2024 is 7960 MW, and the maximum load for an average working day is 7440 MW.

A minimum scenario was developed in the plan that relies on a weaker growth rate of electricity consumption as to the maximum scenario, due to timely implementation of energy efficiency measures. In this scenario, in 2024 gross electricity consumption reaches 40 860 GWh.

The plan defines the development of transmission network at 400 kV, 220 kV and 110 kV of EPS in Bulgaria up to 2024 and aims to create the necessary technical conditions for

secure and quality electricity supply to all transmission network nodes and sustainable work and development of generation capacities in the country and electricity market vitality. In this plan ESO EAD assumes the concept for 220 kV transmission network not to be further developed, but only 400 kV and 110 kV networks, with the exception of the second power supply area construction of the town of Rousse. The 110 kV network development is justified with the transmission security improvement for renewable energy, connection of conventional power plants, improving the security of supply in individual regions when scheduled and emergency repairs in the 400 kV and 220 kV networks occur, as well as improving electricity exchange with distribution networks. The plan forecasts the generation capacity development in Bulgaria up to 2024.

It foresees Rousse TPP unit 4 to serve as a cold reserve supplier, due to the plant's integrated permit for the heating and condensing part, allowing operation of the unit. Varna TPP is not intended to work after the derogation period, although it provides the most competitive cold reserve price and contributes to the voltage regulation in Northeast Bulgaria, without requiring additional investments in the grid.

Generation capacities development forecast of Bulgaria does not include hydroelectric complexes along Danube, which are classic, but fall into the group of renewables too. Their consideration requires redesigning, in accordance with nature conservation and economic criteria. These new projects must be comprehensive, which means to include a hydro power project, navigation project, bridges and roads, including rail. They should be jointly developed and adopted by the Romania too.

The construction of 7th reactor project at Kozloduy NPP site under most optimistic forecast is expected to come into operation after 2025, due to long coordination procedures that lie ahead. This is confirmed by the European Commission forecast as of 2050, where more nuclear power in Bulgaria is foreseen only after 2035. The option of 7th reactor at Kozloduy NPP site will be taken into account in the next update of the electricity network development plan. In the period 2015-2016 reconstruction of generators 9 and 10 in Kozloduy NPP is scheduled, which shall result in maximum active power of each unit 1100 MW. In the period 2015-2024 the total of 2212 MW new capacity is planned, of which 1489 MW renewables. With the accelerated penetration of renewables and the lack of industrial load in the country, the need to curtail forcibly the NPP operational capacity during certain periods of the year will increase. Construction of new units 9 and 10 in Maritsa Iztok 2 is not envisaged, due to EWRC's denial to grant a license.

It is necessary to increase the regulatory capacities of Chaira PSHPP with the completion of Yadenitsa dam and the rehabilitation of Chaira PSHPP, Belmeken PSHPP, Sestrimo HPP and Momina klisura HPP for the ESP real-time management, interconnection schedules execution and maintaining security, in accordance with the requirements of ENTSO-E (in the conditions of reduced conventional power plants generation and increased renewable sources generation).

Cooperation

In 2014 EWRC realized cooperation with the regulatory authorities of the neighbouring countries regarding issues connected with the cross-border exchange in the region. The main direction was the negotiation of agreements with the regulatory authorities of the neighbouring countries, which ensure the security of electricity and electricity supply.

The cross-border transmission capacity on the interconnection in the form of commercial transfer rights is allocated and agreed bilaterally by the Auction Operators of the neighbouring systems based on the electricity system managing rules and the current Auction

rules approved by the regulator and in compliance with the rules of the European Network of Transmission System Operators – Electricity (ENTSO-E). ESO EAD is a full member of ENTSO-E and works in a regime of parallel work with the European EPS. Parallel work is carried out in compliance with “Operation Handbook” of ENTSO-E and is based on mutual benefit principles, solidarity and mutual support in case of emergencies to ensure the safe, qualitative and effective electricity supply of consumers.

In 2014 ESO EAD carried out tender procedures for the allocation and procurement of transmission capacity for the commercial exchange in the interconnections of the Bulgarian electricity system and the electricity systems of Greece, Romania, Serbia, FYROM and Turkey.

Annual, month and week ATC are published on the ESO EAD website. Daily capacities are published in the electronic platform ECAMT every day till 9:00 a.m. and the daily auctions results till 10:00 a.m.

Explicit allocation of cross-border transmission capacity is in line with the Auction rules for the individual borders, published on the ESO EAD website.

In 2014, bilateral coordinating auctions were held on the Bulgarian-Romanian border, Bulgarian-Greek border and the Bulgarian-Serbian border. Capacity allocation on the Bulgarian-Macedonian and Bulgarian-Turkish border is based 50/50.

Annual and month auctions on the Bulgarian-Romanian border in both directions are conducted by TRANSELECTRICA. Daily auctions in both directions are carried out by ESO EAD. Annual and daily auctions on the Bulgarian-Greek border in both directions are carried out by IPTO. Month auctions in both directions are carried out by ESO EAD.

Annual and month auctions on the Bulgarian-Serbian border in both directions are carried out by ESO EAD. Daily auctions in both directions are carried out by EMS (Serbia).

The Common Auction Rules with a procedure for allocating intraday transmission capacity between the Bulgarian and Romanian, respectively the Bulgarian and Greek TSOs, increase the electricity market flexibility, including balancing market flexibility between Bulgaria, Romania and Greece.

Procedures contained in the new Common Auction Rules agreed between the Bulgarian and Romanian, respectively the Bulgarian and Greek electricity system operators meet the requirements set out in Regulation (EC) № 714/2009.

International projects

In October 2014, the project “Implementation of the European electricity market in Bulgaria - II phase” was launched, realized under the Programme BG04 “Energy efficiency and renewable energy”. The program is financed by the Financial Mechanism of the European Economic Area (EEA FM) 2009 - 2014 based on the signed Memorandum of Understanding between the Republic of Bulgaria and the Kingdom of Norway, Iceland and Liechtenstein. Programme operator is the Ministry of Energy of Bulgaria. Project promoter is the Energy and Water Regulatory Commission and Partner is the Norwegian Directorate of Water Resources and Energy (NVE) to the Ministry of Petroleum and Energy, Norway. The following key objectives are foreseen to be achieved as a result of the project:

- Further development of the electricity market in Bulgaria by introducing a new market segment - organized day-ahead market for physical deliveries;
- Development of conceptual, technical and organizational tools and taking concrete steps towards electricity market integration in Bulgaria with its neighboring market areas and coupled markets;

- Development of effective electricity market monitoring tools.

The deadline scheduled for the activities implementation is 1 April 2016.

3.1.5. Compliance

The regulatory authority obligation under art.37, § 1, d of Directive 2009/72/EC on the application and control of the execution of legally binding decisions of the European Commission and the Agency for the Cooperation of Regulators, is transposed in EA, art. 21, para. 1, item 31.

The main principles leading EWRC's activities in 2014 regarding the execution of its regulatory powers were prevention and non-admission of energy market competition distortion, as well as to ensure balance between energy companies' interests and consumers.

In exercising its powers, the Commission analyses the performance of controlled energy companies, in order to create an environment preventing abuse of monopoly and limiting/violating the competition on the energy market in Bulgaria. Within the territory of the country, in view of its special competence, there is only one authority which is in charge of the application of the Community legislation in the field of competition, namely Competition Protection Commission (CPC). To that end, EWRC has the right, pursuant to art. 21, para. 6 of EA, to inform the Competition Protection Commission, which in turn reviews the information and on a case by case basis may start a procedure under the Competition Protection Act.

National legislation guarantees that the regulatory authority takes independently its decisions and the later are not a subject of control by the Government, but pursuant to art. 13 of EA, only to the Court in terms of their legality.

In order to exercise its powers in price regulation, EWRC annually receives information on annual financial statements of the licensees, their annual audit reports and accounting information by types of activities. Separately, the Commission may require other accounting documentation, technical and economic information, including concluded contracts.

A certification procedure for an independent transmission operator under Art.10 item 4 of Directive 2009/72/EC was opened in December 2014. EWRC started a documents validation procedure of the submitted by ESO EAD documents within the four month period under Art.10 item 5 of Directive 2009/72/EC. The certification procedure shall continue in 2015 too.

After the completion of the certification process, the Commission may practically realize its power of art.21, para.1, item 27 of EA to monitor the obligation implementation of the independent transmission operator. In case of non-implementation of the obligation the independent transmission operator pursuant to art. 21, para. 3 of EA within its regulatory powers, the Commission shall:

1. impose sanctions for a discriminatory behaviour of the operators to the benefit of the vertically integrated undertaking;
2. monitor the communication between the operator and the vertically integrated undertaking, to guarantee that the operator implements its duties;
3. act as an authority for the dispute resolving between the vertically integrated undertaking and the operator;
4. request information and documentation concerning trade and financial relations, including loans between the vertically integrated undertaking and the operator;
5. approve trade and financial agreements between the vertically integrated undertaking and the operator in cases when they influence the conditions of market development;

6. require justification of the vertically integrated undertaking regarding the presented by the compliance responsible decision concerning network development plan or certain investments of the operator, including the compliance of the non-discrimination behaviour requirement to the benefit of the vertically integrated undertaking;

7. perform inspections at the entities of the vertically integrated undertaking and the operator;

8. approve ten-year transmission network development plan, monitors and controls its execution at the terms and conditions of the Ordinance pursuant to art. 60;

9. assign all or certain tasks of the independent transmission operator to the independent system operator, at the proposal of the network owner, in case the operator violates habitually its duties regarding the independence requirements, pursuant to chapter eight (a), section II, including habitual discriminatory behaviour to the benefit of the vertically integrated undertaking.

The Agency for the Cooperation of Energy Regulators (ACER) provides an integrated framework within which national regulatory authorities (NRAs) cooperate in order to perform their tasks at EU level. This framework is designed, among others, to support the development of EU-wide rules (network codes) and their consistent implementation across the European Union, and other activities where NRAs are expected to coordinate their actions.

In June 2014 EWRC, together with other national regulatory authorities signed a Memorandum of Understanding between the Agency for the Cooperation of Energy Regulators and national regulatory authorities on the sharing of information under Regulation (EC) № 1227/2011 on electricity market integrity and transparency (REMIT) and Service Level Agreement of the Centralised European Register for Energy Market Participants (CEREMP).

3.2. Promoting competition

3.2.1. Wholesale market

Wholesale market description

The establishment of a competitive electricity market and its phased implementation requires network operators to carry out a number of additional activities despite electricity system management activities and networks maintenance and development. In a market environment trade relations are characterized by great diversity, the need for hourly negotiating of electricity purchases and sales, balancing the participants and regulate the rules for the balancing energy market operation.

An hourly market for all electricity trades and equal conditions for balancing the standard, special and combined balancing groups have been introduced since 1 June 2014. The so called “standard balancing groups coordinators” operate in practice too and they provide the members of the operated by them balancing group the service to take the balancing responsibility for them. A methodology has been adopted as an integrated part of EMR for balancing energy price setting.

With the amendment of EMR in 2014 all prerequisites for the establishment of a working comprehensive balancing market, day-ahead market and power exchange have been created. At the end of March 2014 a license for the activity “organization of a power exchange market” was issued to Independent Bulgarian Power Exchange EAD.

For electricity generators market liberalization and the operators’ legal unbundling sometimes rise new and divergent in terms of economic interest relationships. Network users, providing ancillary services, including cold reserve, ensure the TSO’s obligations fulfillment

regarding ESP management. ESO EAD contracts with balancing energy suppliers access, ancillary services provision and balancing energy market participation and maintains a register on its website of the active balancing energy suppliers from primary, secondary, tertiary regulation and activated cold reserve units.

ESO EAD defines each month until 10th the required availability for ancillary services of thermal power plants for the next month and the payment is in accordance with the ancillary services costs approved by EWRC for the regulatory period.

Cold reserve availability is negotiated through auctions. Ancillary services availability costs and cold reserve are recovered through access price and the cost of electricity supplied by balancing energy suppliers for upward and downward regulation, are transferred in energy shortage and excess prices in the balancing market.

ESO EAD maintains the generation - consumption balance, ESP security and quality of supply in the EEC using balancing energy provided by dispatchable generation and consumption units.

The electricity market structure has not changed and includes: electricity market through bilateral contracts, stock market, balancing energy market, cold reserve and ancillary services market and interconnection capacity (capacity) provision market.

In 2014 all medium voltage customers were set in the free market, which significantly increased its share compared to regulated market.

Balancing mechanism, cold reserve and regulation power

In 2014 Bulgaria introduced bilateral contracts market with notifications in the day before delivery and balancing of all electricity transactions. The balancing of all market participants is carried out under unified principles, negotiation and providing reserve.

- Reserve types:

- primary regulation reserve
- secondary regulation reserve
- tertiary regulation reserve
- cold reserve
- ESO EAD pays no thirdly regulation reserve

- Negotiation period:

Primary and secondary regulation reserves (ancillary services reserve) are negotiated at annual basis, but ESO EAD monthly sets the range for each balancing energy supplier.

- Cold reserve is bought in auctions, usually for a month or a longer period.

- Negotiation and reserve supply

Until the 10th day of the month preceding the month of delivery, ESO EAD determines the availability for participation in primary and secondary regulation of thermal power plants for the next month.

Generators are obliged to allocate the set by ESO EAD availability for units in planned operation in day D and inform ESO EAD in day D-1. Generators have no rights to sell electricity in the market over ESO EAD availability.

Gross dispatching and management of ESP requires the balancing energy suppliers to send gross and net schedules for each unit.

The set operator's availability is reported in the schedules validation process.

Availability for participation in primary and secondary regulation is paid by ESO EAD on the basis of approved by EWRC ancillary services costs.

- Negotiation and regulation energy supply

Balancing energy suppliers give ESO EAD prices for upward and downward regulation up to the 15th day of the month, preceding the delivery.

Balancing energy suppliers send offers and bids for tertiary regulation (single component price) every day between 15:30 and 16:00, but only for units that do not participate in primary and secondary regulation.

ESO EAD pays the supplied regulation balancing energy as bid (price as bid).

- Settlement

Settlement period for the supply of regulation energy is one hour.

Settlement period of market participants' imbalances is one hour.

- Regulation energy supply

ESO EAD publishes on its website upward and downward regulation prices from balancing sources of primary and secondary regulation and activated cold reserve.

Power exchange

As a result of the parallel testing of market organization and functioning under the Electricity Market Rules, it was found that the same should be amended. In 2014 the Commission initiated proceedings in their amendment pursuant to the general principles and specific requirements set out in Directive 2009/72 /EC and Regulation (EC) 714/2009. According to the latest amendments of the rules a new market model has been created and the new market organization aims to ensure compliance with the provisions of the Energy Act with respect to the power exchange organization in the Republic of Bulgaria. As a result of the above, EWRC granted Independent Bulgarian Power Exchange EAD license № L-422-11 of 31 March 2014 for the activity "organization of power exchange market" for a period of ten (10) years.

Independent Bulgarian Power Exchange EAD has the following subject of activities: organization of power exchange market trading in energy and energy-related products such as electricity, natural gas, coal, emission allowances and green certificates, acting as a trading system that matches or contributes to matching of buying and selling interests, eligible for trading on the regulated market in many third countries, within the system and based on rules, and the result is transactions through these tools.

Under the EMR power exchange participants may be:

- electricity generators with access right to the relevant network and registered in the electricity market;
- electricity traders registered in the electricity market;
- end users, direct balancing group members.

The activity covers all major activities typical of such a company and it is structured to enable horizontal integration of additional departments by types of activities (segments), and

plus Day Ahead Market other segments can be added too - Intraday market, Physical Futures, following the example of Hungarian power exchange (HUPX), a platform realizing centralized administration of bilateral contracts (Continuous trading), following the example of the Romanian market operator (OPCOM), etc.

The establishment of an independent market gives the possibility to introduce new trading instruments (derivatives, options, futures, forwards transactions, regular auctions related to long-term agreements between participants). Furthermore, the creation of an integrated trading platform (electricity trading, gas, coal, emissions, green certificates) will facilitate the access of maximum number of investors, which will inevitably lead to higher liquidity and shall reach fair value of traded instruments.

The power exchange allows all registered in this segment market participants to adjust their projected demand or supply at a time close to the time of delivery and thus reduce financial risk.

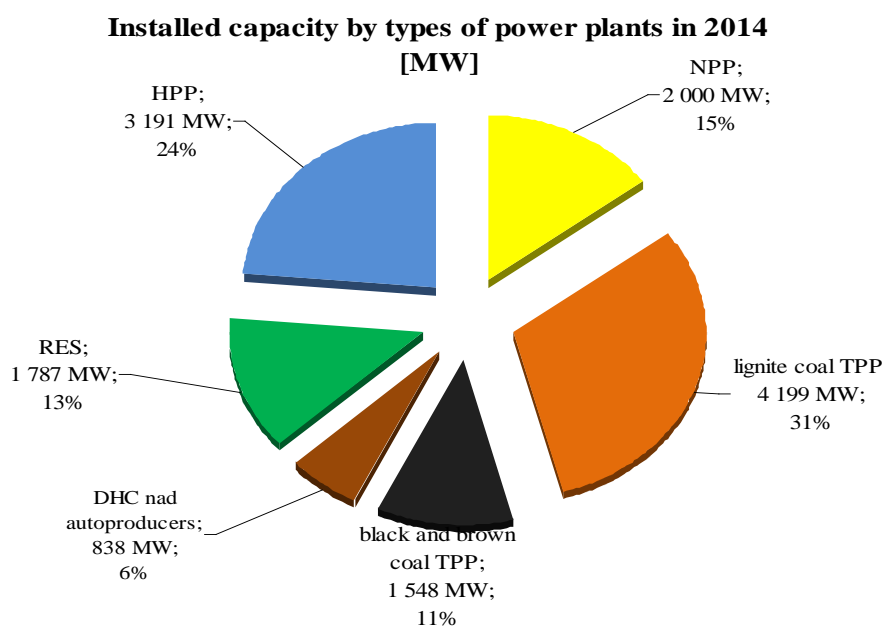
The presence of a power exchange will improve market transparency and lead to market coupling with neighboring market zones.

Wholesale market parameters

Bulgaria has a diverse energy mix, including nuclear, thermal power plants and plants using renewables (hydro, wind, solar power plants and biomass).

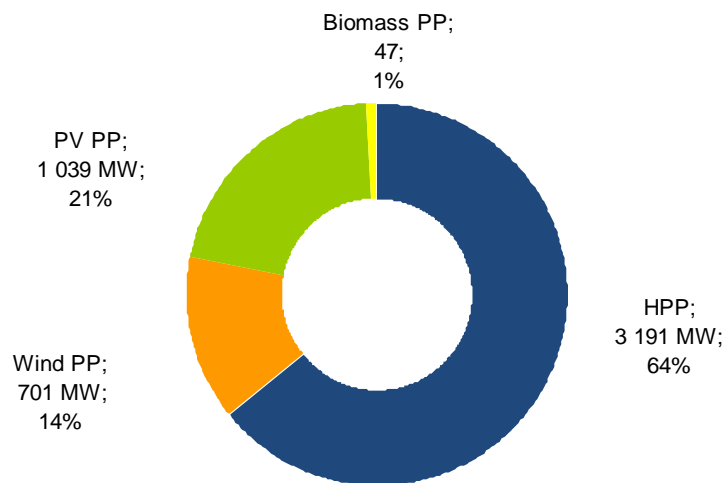
The total installed capacity of all types of electricity generation, including RES in the country in 2014 was 13 563 MW. The available generation capacity (without RES generators) to the annual maximum amounts at 10 085 MW and the peak load on 31 Dec 2014 amounted to 7 106 MW. RES generators are excluded from the available generation capacity as their generation is intermittent and difficult to forecast and dispatch. Compared to the load for 2013 it is higher by 6.5%. The absolute minimum load was realized on June 22 (Sunday) at 06:00 - 2656 MW. Compared to 2013 this load has increased by 20.18 %.

Installed capacity by types of plants and generalized types of plants is shown in Figure 1.



As could be seen from the information presented, the largest share in the overall structure of the installed capacity in the country was that of the conventional thermal power plants - 48.55 % and the share of energy generated from renewable sources (hydro, wind, solar power plants and biomass) in the total production in the country reached 36.7 %.

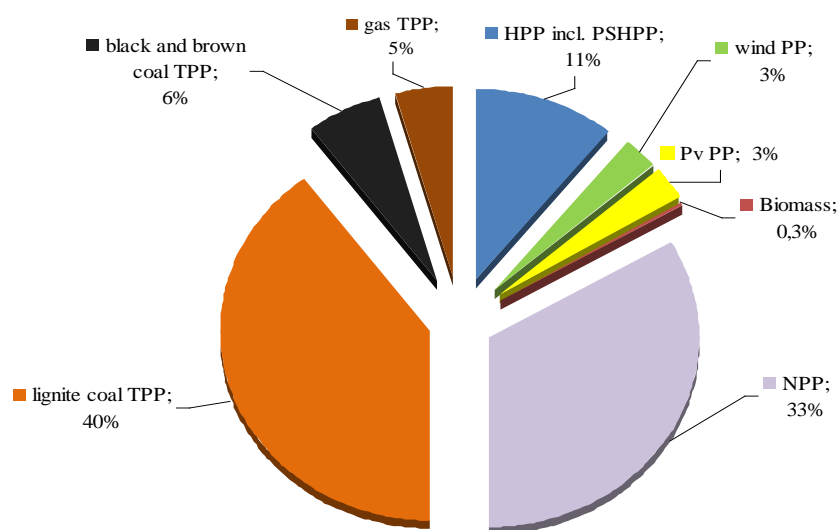
The total installed capacity of wind energy in 2014 amounted to 701 MW, with an annual production of about 1 330 680 MWh. In 2014 the installed capacity of photovoltaic (PV) plants was about 1 039 MW and production of 1 254 849 MWh. In 2014 the installed capacity of power plants fuelled with biomass was about 47 MW and production of 135 899 MWh. RES installed capacity structure is presented in the figure below:



RES installed capacity structure [MW]

Annual gross generation in the country during the reporting period (2014) amounted to 47 408 114 MWh, an increase compared to 2013 by 8.61%, and its distribution in a similar manner is shown in Figure 3.

Total annual generation by types of power plants in 2014 in %



Thermal power plants using coal dominate in the electricity generation structure and participate with 51%, followed by Kozloduy nuclear power plant, which participates with 33%.

Local coal and nuclear fuel represent the main share in the electricity generation fuel structure. The share of local energy sources for electricity production in 2014 was 91% and 9% of import (nuclear energy was recognized as local energy source). The participation of all RES in the electricity generation structure was 17.3%.

Gross domestic electricity consumption in 2014 amounted to 37.9 TWh, an increase of 1.0% compared to 2013. Electricity generation from renewable sources covered 18.9 percent of gross domestic consumption of electricity in 2014.

The growth in RES generation in 2014 remained and according to data from ESO EAD, electricity generated from renewable sources was EUR 7 886 259 MWh, which is 15.55 percent more than RES electricity generated in 2013. The percentage change in the share of renewables in gross final energy consumption was indicated on 19 Feb 2014 by the National Institute of Statistics and amounted to 16.3%, and the set indicative target 2020 for Bulgaria is 16%.

The significant growth in 2014 of power plants generating electricity from renewable energy sources caused significant changes in the generation-consumption EPS balance, for to secure this balance numerous curtailments and base load capacities turning on/off had to be done, which in turn influenced the respective plants efficiency and deteriorated the main facilities technical characteristics.

According to the latest European Commission recommendations on the energy sector, renewables in recent years have been strongly supported by feed-in-tariffs. This fact has made possible the enormous growth of renewable energy in the energy mix, which is in line with environmental targets for 2020. However, this kind of support leads to deviations from price and market mechanisms and hence to distortions of competition in the sector.

In the submitted 10-year electricity system development plan of the Republic of Bulgaria it is stated that in the period 2015-2024, a total of 2 212 MW new capacity is planned to be constructed, of which 1 489 MW RES. With the rapid penetration of renewables and lack of industrial load in the country, the need to curtail forcedly the NPP operational capacity in certain periods of the year, will increase. It is necessary to increase the Chaira regulation capabilities through the completion of Yadenitsa dam and the rehabilitation of Chaira PSHPP, Belmeken PSHPP, Sestrimo HPP and Momina klisura HPP, in order to manage the system, to execute real-time interconnection schedules and maintain security in compliance with the requirements of ENTSO-E (in the circumstances of reduced conventional power plants generation and increased RES generation). Yadenitsa acquired the status of a project of common interest in the energy infrastructure of the European Union.

Another negative impact on system management in 2014 had the reduced total electricity consumption in the country. Operational capacity of wind and photovoltaic power plants is directly dependent on the intensity of wind and solar radiation. Changes in the operating capacity of these plants are compensated by conventional power plants, mostly by loading HPP.

To this end, wholesale electricity market in Bulgaria in 2014 continued to be characterized by the presence of legal and contractual obligations of the Public Provider NEK EAD to buy electricity from generators at preferential terms, namely the long-term obligation to purchase electricity generation (between 12 and 20 years) at prices significantly higher than electricity prices market levels. Such obligations are long-term PPAs between NEK EAD and AES 3C Maritza East 1 Ltd. and Contour Global Maritza Iztok 3 AD, and the imposed legal obligations of the Public Provider to purchase obligatory electricity from renewable sources and high efficient cogeneration. It should be stressed that the existing legal and contractual power purchase obligations and the provision of preferential treatment is contrary to the introduction of new European requirements for competitive market conditions. The existence

of these contractual obligations of NEK EAD to buying energy at non-market prices, leads to the impossibility of this energy realization.

The main reason for the heavy financial obligations of NEK EAD and the end suppliers as a result of the long-term contracts is rooted in the agreed purchase prices and available capacity and energy amounts that are not based on market conditions and are not consistent with electricity consumption level and structure.

Notwithstanding the difficult market situation in 2014, commercial electricity export in 2014 was 9 501 993 MWh, which is 53.28 % more than that in 2013 and represents 20 % of gross generation. The freely negotiated electricity share, including exports, amounted to 43.4%. Electricity quantities in the country in 2014 were 31 655 165 MWh, representing an increase of 5.11% compared to the previous year.

Electricity generation, consumption and export development is presented in the table below:

<i>Index</i>	<i>Year</i>		
	<i>2012</i>	<i>2013</i>	<i>2014</i>
<i>Gross output fed into transmission grid from PP, MWh</i>	45 230 601	41 072 730	44 559 309
<i>Consumption and own needs from PP, MWh</i>	4 693 527	4 306 159	4 718 268
<i>Net generation fed into transmission grid, MWh</i>	40 537 074	36 766 571	39 841 041
<i>Physical import</i>	2 352 570	3 350 387	4 319 338
<i>Total generation fed into transmission grid, MWh</i>	42 889 644	40 116 958	44 160 379
<i>Losses in transmission grid, MWh</i>	915 823	884 604	953 325
<i>Withdrawn energy from transmission grid, MWh</i>	41 973 821	39 232 354	43 207 054
<i>PSPP consumption, MWh</i>	1 103 094	1 057 064	813 789
<i>Physical export, MWh</i>	10 660 167	9 530 934	13 774 537
<i>Consumption from transmission grid, MWh</i>	30 210 560	28 644 357	28 618 728

Table 2. Source: ESO EAD

Number of customers connected to the medium and low voltage network who switched electricity supplier significantly increased in 2014 to the total of 3 528 customers, with greatest dynamics in end customers share connected to low voltage network. The number of customers connected to high voltage grid that have switched electricity supplier in 2014 was 22.

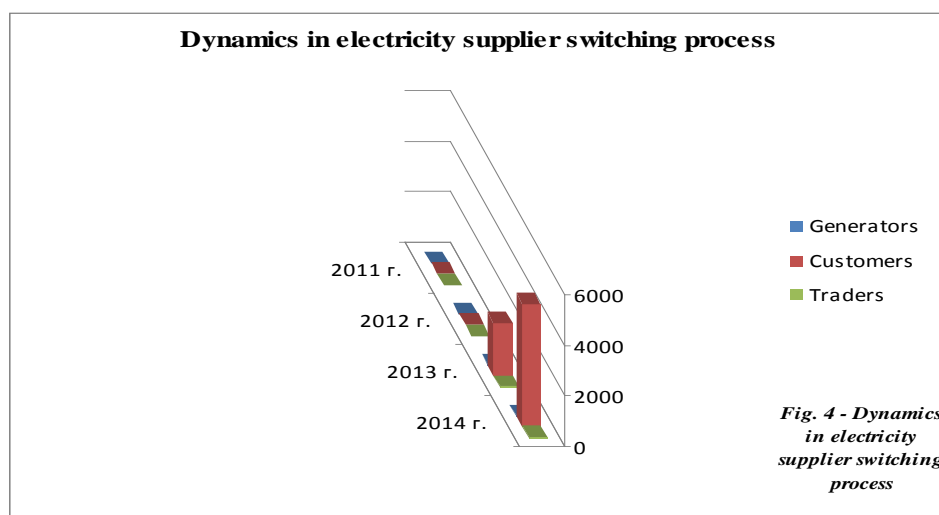


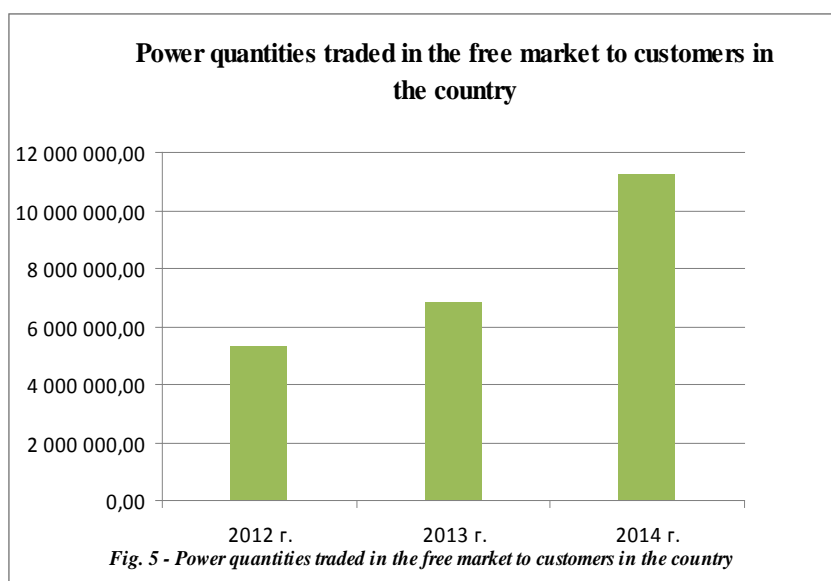
Fig. 4 - Dynamics in the electricity supplier switching process

Participants with real market transactions as of December 2014 were total of 4 944, of which 10 generators, 4 867 users and 67 electricity traders. As of December 2014, 20 standard balancing groups, 13 special and 4 combined balancing groups have been registered.

In 2014 the Regulator has licensed 11 new companies for the activity “electricity trade”, bringing the total number of licensed traders to 126. The total market share in terms of quantities of new suppliers registered on the market in 2014 was 0.5%.

The sales of generators at hourly schedules in 2014 were: Kozloduy NPP - 12 273 824.93 MWh, TPP Maritsa Iztok 2 EAD – 7 092 833.28 MWh, TPP Bobov Dol EAD – 1 570 627.51, TPP Varna EAD - 661 535.65 MWh and TPP Maritsa 3 AD - 327 619.99 MWh. Largest sales to end customers in the standard balancing groups have been registered by the following coordinators: CEZ Trade Bulgaria EAD -18.2% of total sales, EVN Trading South East Europe EAD - 14.62% of total sales and Energy Financial Group AD -11.1% of total sales.

In 2014 the quantities traded in the free market to consumers in the country were 11 291 383 MWh, compared to 6 871 571 MWh in 2013 or an increase of 64.32%. Export quantities were 9 501 994 MWh. The total quantity marketed by generators at freely negotiated prices was 20 793 377 MWh. The largest share of free market realized quantities was provided by Kozloduy NPP - 43%, Maritsa Iztok 2 - 31% and NEK EAD - 12%.



With view of the above, the electricity market in the Republic of Bulgaria is national and well integrated with the neighbouring countries; therefore the country plays the role of a net exporter in the region. At this stage of development of the domestic and regional electricity market, the transmission network in the country does not have major problems with congestion in the electricity system, including the cross-border transfer capacities. Some congestion appears in interconnections with some neighbouring countries, mostly during the winter.

Electricity trade with neighboring countries is in accordance with the European rules and bilateral agreements and Auction rules for cross-border exchanges and electricity trading. The latter refers also to coordination of interconnection transfer capacities between the Bulgarian transmission network operator and the neighboring transmission system operators.

Cross-border transmission capacity on the interconnections is allocated by the Auction Operator in the form of CTR. The Auction Operator calculates and allocates the transfer capacities in line with the norms and rules of the European Transmission System Operators for Electricity (ENTSO-E).

3.2.1.1. Monitoring the level of prices, the level of transparency, the level and effectiveness of market opening and competition

Market monitoring

EWRC powers regarding regulation of activities in the electricity sector is regulated mainly in art.21 of EA. Most important of them, which concern market monitoring, include to:

- monitor the implementation of all measures adopted to fulfill the public service obligations, including protection of energy services users and protection of the environment, and their possible effect on national and international competition;
- monitor and control the compliance of transparency obligations of the energy companies in terms of pricing, accounting and work with energy services users;
- monitor the level and effectiveness of market opening and competition at wholesale and retail markets and monitor energy market coupling with other countries - members of the European Union;
- perform control on the transit process of market at regulated prices to organized market at freely negotiated prices, in accordance with EMR;
- monitor the announcement and fair allocation of the available networks capacity among all users.

EWRC powers related to the monitoring process are defined and listed in Chapter Eleven - Electricity Market Monitoring of EMR and include:

1. Objectives of Market Monitoring;
2. Information provided to the Commission by the trading participants;
3. Information provided to the Commission by the electricity system operator;
4. Analysis and assessment of the electricity market efficiency;
5. Market Monitoring results.

Market transparency

In June 2014 in Ljubljana Memorandum of Understanding was signed between ACER and the national regulatory authorities on the sharing of information according to Article 10 (1) of Regulation (EC) 1227/2011 (REMIT) and a Service Level Agreement on the Centralized European Register of Market Participants (CEREMP). EWRC signed the Memorandum and Agreement too, and it became an annex to the Multilateral Memorandum of Understanding.

Also, in conjunction to Art.9, para.2 of Regulation (EC) 1227/2011, EWRC implemented a national register of market participants in a given by ACER format. The register shall give each market participant a unique identifier and shall contain sufficient information to identify the market participant, including relevant details relating to VAT identification number, registered office and person responsible for its operational and trading decisions.

Registration of market participants by EWRC is done via the application Centralised European Register of Energy Market Participants (CEREMP), created by ACER. The

information necessary for registration is determined by ACER Decision № 01/2012. Market participants' registration in CEREMP done by EWRC was opened in March 2015. National registration of market participants in Bulgaria is done via the application CEREMP, created by ASRE (<http://www.dker.bg/newsbg.php?n=2655>). Currently the national registry has successfully registered 15 market participants in CEREMP system and all have received ACER code. Account users are approximately 20.

Market surveillance

Much of the information required by ACER is centrally available in the transmission network operator and the power exchange. The transmission network operator should be able to provide all the basic data relating to market monitoring.

In order to implement their license obligations, IBEX and ESO EAD together with EWRC in 2014 actively participated in preparing the implementation of various market monitoring and surveillance obligations. IBEX and ESO EAD are obliged to report to EWRC, at least cases of suspicious market participants' behaviour, market problems, incidents or disputes. In 2015 EWRC is expected to approve Power Exchange Behaviour Code, as well as agreements with the participants in accordance with Article 3, 4 and 5 of REMIT.

3.2.2. Retail markets

Electricity market in the country operates by a model where part of electricity sales are concluded at regulated prices approved by EWRC, and the rest is traded in the liberalized market at freely negotiated prices between market participants. According to EA, participants in transactions in the liberalized electricity market are generators, traders, suppliers of last resort, power exchange operator and end customers.

At this stage, under the Energy Act, electricity trading in the country is based mainly on bilateral contracts between participants - generators, traders and consumers.

EWRC keeps on its website a list of all licensed electricity traders and their addresses for correspondence.

Since 1 July 2007 Bulgarian electricity market is fully liberalized, this means that every user has the legal right to choose a supplier and free and equal access to the electricity transmission network to the consumption point. The established market model is based on regulated third party access to the network, where transactions are carried out through direct bilateral contracts between generators or traders users; missing quantities are bought and surpluses under bilateral contracts are sold in the balancing market. In the transitional period of gradual liberalization and in parallel with the free market segment, where prices are freely negotiated between parties to a transaction subject to balancing, still a segment of electricity transactions at regulated by EWRC prices exists.

Retail market segment in 2014 consisted of electricity supplies to end customers connected to the electricity transmission and distribution networks.

In 2014 a part of the customers were supplied at regulated prices and at this stage the number of customers connected to the low voltage distribution network that have changed their electricity supplier, significantly increased in 2014 and are most dynamic. The expansion of the electricity market at freely negotiated prices to small business customers is in accordance with the requirements of EA and Directive 2009/72/EC.

In line with EA, end suppliers supply electricity to “protected customers” - household and non-household end customers connected to low voltage distribution network in the licensed territory, when these customers have no supplies by another supplier.

In pursuance of the EA and the currently in force Ordinance for the electricity prices regulation as of 18 March 2013, by a decision of the Regulator the following prices have been approved for protected consumers:

- access and/or transmission through the electricity transmission and distribution networks;
- prices of end suppliers selling to household consumers and small businesses connected to electricity distribution LV network.

Regulated by SEWRC prices of access and transmission for the electricity distribution companies under Ordinance for the electricity prices regulation (18 March 2013), shall be set based on allowed by the Regulator revenue requirements for maintenance and operation of the relevant distribution network.

Main consumers groups connected to the electricity distribution networks in 2013 were as follows:

- Non-household consumers connected at medium voltage;
- Household and non-household consumers connected at low voltage.

End prices paid by these consumers in the regulated market include apart from the energy price the following network prices:

- price of access to the electricity transmission system;
- transmission price through the electricity transmission network;
- price of access to the electricity distribution network;
- price of transmission to the electricity distribution network, split into voltage levels – respectively MV and LV.

The operation and implementation of long-term contracts between NEK EAD and AES Maritza East 1 EOOD and Contour Global Maritza Iztok 3 EAD continued in 2014.

To ensure customers supplies in the regulated market, EWRC sets electricity generation availability for generators by which the Public Provider shall purchase electricity, as well as the electricity amounts, based on which the Public Provider shall conclude transactions with end suppliers. Purchased from generators at regulated prices electricity amounts, within a regulator-defined availability for each generator, are determined based on the principles of equality and transparency in accordance with the methodology adopted by the Regulator.

Regulated price for protected consumers in the country is formed as a price mix of the different primary energy sources (nuclear, coal, RES and high efficient cogeneration). Electricity generated from renewables and high efficient cogeneration is purchased by the Public Provider under long-term contracts and feed-in-tariffs significantly higher than market levels.

Costs related to legal and contractual obligations for the purchase of electric power are classified as “obligations to the public” and Art. 35 of the Energy Act regulates the rights of energy companies to be compensated for costs incurred resulting from their obligation to purchase electricity at feed-in-tariffs from renewable sources and high-efficient combined heat and power plants and long-term contracts.

The strong distortion of the market continued in 2014 too, and at present the price at which NEK EAD sells electricity to end suppliers is 125.43 BGN/MWh, while electricity traded in the free market is realized at prices 75-80 BGN/MWh.

It should be noted that the predicted consumption in the regulated market in 2014 was about 13 million MWh, and electricity subject to compulsory purchase from the two plants represent over 50% of total consumption in this market segment.

The Findings and Recommendations of the European Commission of April 2013 on the power sector in Bulgaria show that energy sector in Bulgaria should be liberalized to ensure the efficient and competitive functioning of the energy market in the country. The document shows that in a normally functioning and well-organized market with a central buyer, the power plants with lowest cost-effectiveness would not be dispatched and even would be potentially taken out of the market. There have been dispatching of economically and environmentally inefficient generations. Among the measures to address the problems of Bulgarian energy market, the Commission explicitly states the review of long-term power purchase agreements (PPAs) in the short term (3-9 months). In the said document, EC also notes that concluded contracts between NEK EAD and the power plants Contour Global Maritsa Iztok 3 and AES 3C Maritza East 1 under the principle “take or pay” commits NEK EAD to pay for the whole capacity of the plants, regardless of the fact whether this capacity has been dispatched or not. Reviewing the PPAs, in line with recommendations of the European Commission, in order to ensure consistency between the purchase price and the current market conditions would not only lead to NEK EAD’s financial situation stabilization, but would lead to resolving competition problems created by the presence and the conditions of the said contracts.

In view of the requirements of Directive 2009/72/EC, EWRC has analyzed the long-term power purchase agreements (PPAs) concluded between NEK EAD on one side and Contour Global Maritsa East 3 AD, respectively, AES 3C Maritsa East 1 EOOD on the other. Based on the analysis made SEWRC has found that there are prerequisites for breach of the EU legislation, because there is evidence from which it follows that the PPAs are new and unlawful state aid to the producers under these contracts and as such they are incompatible with the internal market. In this regard, the Regulator referred to the European Commission with an appeal ref. E-№ 04-11-7 of 20 June 2014, where arguments for the suspension in the form of termination of the agreements were presented. The appeal was accompanied by a request ref. E-№ 04-11-8 of 20 June 2014 under Art. 11 item 1 of Regulation (EC) № 659/1999 of the Council of 22 March 1999 laying down detailed rules for the application of Art. 108 of the Treaty on the Functioning of the European Union concerning the power of the European Commission to issue an order about the state aid suspension until its final ruling on the appeal. The request was justified in view of the need to stop the illegal state aid influence, which jeopardizes free economic environment by putting in a better position the producers under the PPAs compared to the other players in the energy market.

Also, EWRC has analyzed the existing support schemes for generators of electricity from renewable sources, upon which it found that the schemes regulated in the Renewable Energy Sources Act (RESA) lead to excessive support, creating conditions for breach of the EU legislation. In this regard, the Regulator referred to the European Commission with an appeal ref. № E-04-11-9 of 20 June 2014, where arguments for the suspension in the form of termination of the support schemes, in so far as they lead to excessiveness. The appeal was accompanied by a request ref. № E-04-11-10 of 20 June 2014 under Art. 11 item 1 of Regulation (EC) № 659/1999 of the Council of 22 March 1999 laying down detailed rules for the application of Art. 108 of the Treaty on the Functioning of the European Union concerning the power of the European Commission to issue an order about the support schemes suspension, in so far as they lead to excessiveness, until its final ruling on the appeal.

In view of the above, in March 2014, the Commission adopted a decision on the basis of Art.21, para. 1, item 6 of EA, requiring NEK EAD and the parties to the long-term PPAs - Contour Global Maritsa Iztok 3 AD and AES 3C Maritza East 1 Ltd., to begin negotiations amending the PPAs concluded on 13 June 2001, with the following minimum parameters:

reducing the total energy cost from TPP AES - 3C Maritza East 1 by 30%, envisaging the energy from one of the units to be sold in the free market, respectively reduce the total energy cost from TPP Contour Global Maritza East 3 by 20%, envisaging the energy from two of the units to be sold in the free market.

Standardized load profiles

Pursuant to the requirements of the Third Energy Liberalization Package of the European Union and the Bulgarian legislation, in 2015 the electricity market should be liberalized and gradually integrated with those in other EU countries. This means that all customers, including household and small business customers connected to the low voltage network, should be able to buy electricity at freely negotiated prices from suppliers across the European Union. The goal is the efficient competition to offer consumers options to reduce costs.

The current EMR envisage the presence of “unified for the country list of standardized load profiles proposed by the distribution companies” (Art. 61, para. 1, item 4 EMR) and “an approved standard load profile for one user or a group of users” (Art. 160 of EMR) to enable customers with sites without installed hourly reporting electricity meters to take the advantage of their right to choose their electricity supplier (Art. 59 para. 2 item 4 and Art. 86, para. 2 of EMR). The dynamically changing legislation in the energy sector does not make it clear who shall prepare and approve this “unified for the country list of standardized load profiles (SLP)” and how they should be applied.

In 2014 EWRC asked the distribution companies to present developed load profiles. After analyzing the information provided it was found that the companies have not developed sufficient number of SLP types applicable to specific end customers in terms of their behaviour and variables like distinction between household customers and non- household customers, way of heating, seasonal usage and seasonal variations, type of activity with business users, geographic location, etc. At present, distribution companies are still in the process of collecting, analyzing and processing of the hourly metering database, as well as segmentation of customer groups’ type and number. Best practices suggest that these studies must have duration of at least one year to be representative and on their basis to develop sustainable SLP, and expectations are in the shortest possible time distribution network operators to offer the Commission a unified country list of standardized load profiles.

Information on SLP provided by companies can be summarized as follows:

	CEZ Distribution Bulgaria AD	EVN Bulgaria EAD	Energo-pro Networks EAD
1	Household consumers	Household consumers	Household consumers
2	Non-household consumers	Non-household consumers LV with predominant consumption in the period 08.00-18.00	Non-household consumers
3	Street lighting	Non-household consumers LV with predominant night consumption	-
4	-	Street lighting	-
5	-	Business general	-

By introducing standardized load profiles and in the process of full electricity market opening for households and small business customers, a problem arises related to the purchase of feed-in-tariff electricity, for in Bulgaria the model of a single buyer (NEK) applies and it

has the obligation to purchase electricity at feed-in-tariffs from renewable energy sources, high efficient cogeneration and long-term contracts, realizing electricity sales on the regulated market.

With the full retail market liberalization, there is a threat expressed in the fact that large amounts of energy that should be provided to the regulated market by NEK EAD may not be realized in the free market, although NEK EAD shall remain obliged to buy the electricity under described above contracts at on-market prices.

At this stage of electricity market opening in the country end suppliers supply electricity at regulated prices to protected consumers, based on publicly known “General conditions for electricity supply”, which are developed and proposed by electricity supply companies and approved by the Regulator.

3.2.2.1. Monitoring the level of prices, the level of transparency and the level and effectiveness of market opening and competition

Regarding EWRC’s power to contribute for the compliance of data exchange processes concerning the most important market processes on a regional level, guaranteeing also the necessary information confidentiality level, EWRC monitors whether limiting contractual practices and provisions for exemption exist, which may set an obstacle for non-households to conclude contracts simultaneously with more than one supplier or to limit their choice of suppliers.

Key principles underlying EWRC activities in fulfilling the regulatory powers of the Commission are prevention and avoidance of limitation or violation of competition in the energy market, as well as balancing the interests of energy companies and consumers.

In exercising its powers, the Commission analyses the performance of controlled energy companies, in order to create an environment preventing monopoly abuse and limiting/violating energy market competition in Bulgaria. To that end, EWRC has the right to inform the Competition Protection Commission, which in turn reviews the information and on a case by case basis may start a procedure under the Competition Protection Act.

Ordinance № 3 of 21 March 2013 on licensing the activities in the energy sector provides for another important power and obligation of EWRC related to issuing a license and/or a permit or consent. If in the course of administrative proceeding, a need of permit by CPC is identified, the energy regulator suspends the proceedings, informs the applicant and notifies CPC on starting a procedure under the Competition Protection Act. Only after the entry into force of the CPC decision, EWRC renews the proceedings on issuing the respective administrative document.

In addition, in exercising its powers for giving consent for transformation of licensees, permitting transactions, and management of unfinished construction site or property, or permission for pledge/mortgage on a property which is involved in licensing operations, EWRC has the right to require CPC opinion on the specific case before making a decision or issue a permit.

Under the Energy Act, electricity transmission or distribution energy enterprises, which provide a service of public interest and have dominance on the market within the meaning of the Competition Protection Act, comply with the provisions of this act, unless it thwarts actually or legally the performance of their obligations.

EWRC continuously monitors the market in view of guaranteeing equal treatment among all market participants, as well as among the participants belonging to one and the same group and contributing to the effective competition and correct market functioning. In this regard, EWRC applying its controlling functions performs scheduled inspections of energy companies, as well as unscheduled inspections on submitted complaints and signals.

Concerning its controlling powers, EWRC is in close cooperation with the Consumers Protection Commission, and with a range of other non-governmental organizations for consumer protection likewise.

3.2.2.2. Monitoring the licenses terms and conditions compliance of licensed companies providing services of public interest

The most significant actions taken by EWRC in relation to the exercise of monitoring powers regarding companies providing services of public interest are the following proceedings:

1. Based on Decision № IIAM – 5 of 20 Dec 2013 of EWRC, in 2014 regulatory audits have been carried out in CEZ Distribution Bulgaria AD, Energo-Pro Networks AD and EVN Bulgaria Electricity EAD. The regulatory audit scope included examining the overall licensed activity of the companies under the issued by the Regulator licenses for the period 01 July 2008 – 30 Nov 2013, the including analysis and evaluation of all costs associated with the implementation of the licensed activity.

The results of the comprehensive audit found violations of the licensed activity “electricity distribution”.

In connection with the violations found the inspection body drawn up and presented to the companies acts of administrative violations as follows:

- CEZ Distribution Bulgaria AD – 981 acts;
- Energo-Pro Networks AD – 450 acts;
- EVN Bulgaria Electricity EAD – 359 acts.

2. By Decisions № 01-JI-135-11 of 19.03.2014, № 01-JI-139-11 of 19.03.2014 and № 01-JI-141-11 of 19.03.2014, SEWRC opened proceedings to revoke the license for the activity “public electricity supply” of CEZ Electro Bulgaria AD, Energo-Pro Sales AD and EVN Bulgaria Electricity EAD. The Commission’s decisions have been taken in accordance with the applicable law and aiming to ensure the security of the energy system in Bulgaria. The opening of these procedures was premised by serious problems that had already started in April 2013. In the period April - August 2013 EVN Bulgaria Electricity EAD unlawfully set off amounts of its then unimbursed RES and high-effective cogeneration electricity costs against costs that EVN owed to NEK for purchases of electricity. In November and December 2013 such set-offs were exercised by EVN Bulgaria Electricity EAD and Energy - Pro Sales AD. Since February 2014 CEZ Electro Bulgaria AD has started violating the terms of its license by jeopardizing the payment it owed to NEK EAD, linking it with the satisfaction of their claims arising from other legal grounds. The described problems escalated in the period December 2013 - January 2014 for which the Regulator received complaints by the Public Provider - NEK EAD.

The above cited actions of the electricity supply companies deprived NEK EAD of cash required for the implementation of its licensed activity. That led to the actual blocking of the overall activity of NEK EAD and to inability to make payments to electricity generators. As a result, the security of supply in the energy system has been actually threatened, as its guarantee is directly related to the provision of financial flows in order to avoid debt of energy companies along the chain generation-transmission-supply-distribution-supply of end consumers.

On the other hand, the above-described actions of CEZ Electro Bulgaria AD, Energo-Pro Sales AD and EVN Bulgaria Electricity EAD represent violations of the issued licenses, which violations have been found by findings of administrative offense in the course of NEK EAD’s complaints investigations. These violations, due to their impact on the security of the energy system, have been the basis for the opening of withdrawal procedures for the licensed activity “public electricity supply”.

At present, EWRC has been examining and analyzing all the evidence, statements and objections provided by the electricity supply companies and NEK EAD and after the finalization of this process shall issue decisions on the opened license withdrawal procedures of CEZ Electro Bulgaria AD, Energo-Pro Sales AD and EVN Bulgaria electricity EAD for the activity “public electricity supply”.

3. An inspection of ERP Zlatni piasatsi AD was carried out in 2014 on compliance of the terms of the license for “electricity distribution”.

In 2014 the controlling bodies of EWRC committed 45 spot and documents inspections in connection with received signals and complaints by generators and consumers against energy companies and part of the checks were made after the self-referral by the Commission. The inspections grouped as follows:

- Inquiries into complaints against energy companies on access fee payment – 2 pcs;
- Inquiries into complaints against energy companies on connecting consumers and generators to the transmission and distribution networks – 9 pcs;
- Inquiries into complaints against energy companies on the quality of the electricity supplied to consumers - 15 pcs;
- Inquiries into complaints about purchase of power equipment - 1 pc;
- Inquiries into complaints about improperly charged amounts of electricity - 2 pcs;
- Inspection on received at EWRC inquiries, reports and complaints concerning ambiguities in invoices issued for electricity consumed by household users - 1pc.;
- Inquiries into complaints about the provision of access to energy facilities - 3 pcs;
- Inspections of the electricity distribution companies and NEK EAD on connecting RES generators to electricity distribution and transmission networks - 4 pcs;
- Inspection of the overall activity of ESO EAD in connection to the balancing market organization – 1 pc;
- Inspection of NEK EAD related to “electricity trade” activity - 1pc;
- Inspection of NEK EAD related to “electricity public provision” activity – 1 pc;
- Inquiries into complaints of RES generators against Energo-Pro Networks AD, on refusing to sign electricity purchase contract - 3pcs;
- Inspection at the request of the Prosecution regarding curtailments imposed on RES generators – 1 pc.

3.3. Security of supply (if and in so far as NRA is competent authority)

Implementation of safeguard measures under Article 42 of Directive 2009/72/EC

The presented in the previous sections of the report established regional cooperation and operational arrangements for the coordinated allocation of cross-border capacity with the

neighbouring system operators, as well as the agreed mutual support at emergencies, ensure the safe and reliable operation both in the internal and external electricity markets.

3.3.1. Monitoring balance of supply and demand

In pursuance of EA, ESO EAD elaborates short-term and long-term forecasts and electricity system development plans aiming the provision of electricity balance in the country. Based on forecasts and plans, ESO EAD provides to the Minister of Energy an electricity balance draft and a list of the needs for the country resources, including the needed new generating capacities and interconnection lines.

At this stage of domestic and regional electricity market development, the electricity transmission network of the country does not face significant problems related to security of supply and congestions in the electricity system, including cross-border transfer capacities. As a result of the considerable increase of RES electricity capacities in the country in 2014, mainly solar and wind power, some difficulties occurred regarding their balancing.

4. Natural gas market

4.1. Network regulation

As part of the Third Energy Liberalisation Package and to ensure a smooth and non-discriminatory approach in providing access to the gas networks and their development in the interest of gas market participants, the model independent transmission operator was selected as an optimal solution for ensuring non-discriminatory access to the gas networks and ensuring transparency and efficiency of the transmission operator's activities.

In terms of distribution companies, Art.26, paragraphs 1, 2 and 3 of Directive 2009/73/EC do not apply in Bulgaria, as no company has more than 100 000 connected customers. According to Art.44, para.4 of EA, entities with a natural gas distribution license shall not acquire licenses for other activities subject to licensing under the EA, except a license for natural gas supply by an end supplier, if connected to the gas distribution network customers in the same territory are less than 100 000.

In exercising its regulatory powers EWRC is guided by the following principles:

- ensuring a balance between the interests of energy companies and customers;
- ensuring equality between different categories of energy companies and among various customers types;
- creating incentives for the development of a competitive energy market, where conditions exist.

Under the provisions of EA and the Rules for access to the gas transmission and/or distribution networks, all users have the right to choose their natural gas supplier and that right is guaranteed within the terms of the license "natural gas supply by end supplier".

Natural gas market monitoring carried out by EWRC stimulates retail competition, ensuring non-discrimination between both all market participants and participants within the same category and contributes to efficient competition and proper functioning of the market.

In this regard, the Commission in exercising its control powers carried out inspections in energy companies and surprise inspections at the submission of complaints and inquiries. Another activity that promotes competition in the market is the approval of ceiling prices for the sale of natural gas and distribution companies have the right to sell to end users at prices lower than the approved.

In the price regulation of natural gas distribution and supply, EWRC takes into account the specificities of the market, including the fact that the necessary natural gas distribution infrastructure in the country is still under construction and household customers connected to the gas distribution networks are few.

The applied by EWRC regulatory mechanism ensures balanced incentives for distribution companies to develop networks continuously and to connect new users in order to gradually increase their consumption. Aiming increased investment in gas distribution companies KEVR applies “price cap” regulation. The rate of return on capital is approved by EWRC for each gas distribution company.

4.1.1. Unbundling

Bulgargaz EAD and Bulgartransgaz EAD are parts of the Bulgarian Energy Holding EAD (BEH EAD). BEH EAD was established in September 2008 with 100% state participation, with subject of activity acquisition, management, evaluation and sale of participations in trading companies engaged in business activities in the fields of generation, production, transmission, transit, storage, management, distribution, sale and/or purchase of natural gas, electricity, heat, coal and all types of energy and production raw materials.

In compliance with the main purposes of Directive 2009/73/EC of the European Parliament and the Council regarding the achievement of a fully operational internal market with a non-discrimination access to the natural gas transmission networks and fair natural gas pricing, by a Decision of EWRC transformation has been carried out via the unbundling of Bulgartransgaz EAD from Bulgargaz EAD and their establishment into two independent legal entities. Thus the legal, functional and accounting unbundling of the activities of natural gas transmission and public supply has been achieved.

The Directive's operators independence requirement has been met by the transmission system operator and Bulgartransgaz EAD has been unbundled as an independent entity within the vertically integrated undertaking and the persons responsible for the management, including operational control do not participate in the management of the other companies in the vertically integrated undertaking. The activities along the chain have been horizontally divided: natural gas extraction, import, transmission, storage, distribution, supply and trade.

In 2013 Bulgartransgaz EAD has submitted at EWRC a certification application for an independent transmission based on art. 81e, relating to § 192 of EA, art. 98 of Ordinance № 3 of 21 March 2013 on licensing the activities in the energy sector (publ.SG, issue 33 of 5 April 2013). EWRC has approved a draft decision based on art.21, para.1, item 27 of EA. The draft decision and the whole relating information and documentation have been notified to the European Commission for opinion. In 2014, regarding a submitted by the European Commission letter, EWRC has approved a draft decision on the certification of Bulgartransgaz EAD as an independent transmission operator. It has also adopted to initiate a preliminary discussion with the European Commission by sending the completed form “Independent transmission operator questionnaire” and the approved draft decision.

The activities of the transmission network operator Bulgartransgaz EAD are unbundled legally, functionally and financially from the other activities of the vertically integrated undertaking.

The transmission network operator ensures:

- Unified management and reliable operation of gas transmission network;
- Transmission via gas transmission network and its metering;
- Maintenance of gas transmission network facilities and equipment in accordance with the technical requirements and safety requirements;
- Transmission network development in accordance with long-term forecasts and gas supply development plans and beyond them, where economically justified;
- Ancillary networks maintenance and development.

4.1.2. Technical functioning

Given the EA amendments and to comply with the requirements of energy market liberalization and complete transposition of Directive 2009/73/EC, EWRC has adopted the following regulations and rules:

1. Ordinance № 4 of 5 Nov 2013 on natural gas transmission and distribution networks connection.

2. Rules on the provision of access to the gas transmission and/or distribution networks and access to the natural gas storage facilities. The Rules regulate: the conditions on the provision of access to the gas transmission and/or distribution networks, which the entities asking for access should observe; the procedure on the provision of access to the gas transmission and/or distribution networks, to the entities asking for access, including access application submission and reviewing; capacity allocation mechanism and congestion management procedures principles; information provision requirements about the information needed to network users in order to receive actual access; rules for providing access to natural gas storage facilities is a new element in the secondary legislation in view of the operator's obligation to provide third party access to storage facilities observing non-discriminatory procedures, transparent and fair to all potential consumers.

3. Natural Gas Transmission Networks Management and Technical Rules.

The Rules regulate: the availability and operation of an information system, including all network elements, which shall be used to manage sites/facilities, to collect and archive data, to analyze the status, to test modes, etc.; the natural gas quality and determining its quality parameters; technical conditions for the safe and reliable operation of the gas transmission operator networks; technical conditions for the natural gas amounts metering; technical rules on the operational management – centralized operational management, coordination and control of the gas transmission network operational regime; operational networks technical rules in the event of gas transmission limitation or interruption; technical rules on gas transmission networks connection.

4. Rules on natural gas distribution networks management. The Rules regulate: relationship between the gas distribution system operator and the gas transmission system operators, network users, customers connected to the grid; other natural gas undertakings; stages of planning, construction and development of the gas distribution network, its work organization, operation and service, its operational management, connection of consumers and providing additional services; information access provision requirements about the gas distribution network and informational coordinating procedures between the gas distribution network operator and network users; description of services provided by the gas distribution network operator; gas distribution network customer connection procedures and switching of a supplier; gas distribution network operational regimes management; regulation and metering facilities realization, maintenance and decommissioning; natural gas metering; services commercial quality; gas distribution networks and customers gas installations safety; natural gas quality; energy efficiency enhancement activities.

Technical conditions for safe and reliable operation of gas transmission networks

The design and safe operation of the natural gas transmission pipelines, facilities, installations and equipment, as well as technical rules and standards for design, construction and use of facilities and transportation facilities are regulated by the Ordinance on the design and safe operation of the natural gas transmission and distribution pipelines, facilities,

installations and equipment (prom. SG.67 of 2.08.2004) and Ordinance № 6 of 25.11.2004 on technical rules and standards for design, construction and use of natural gas transmission facilities, storage, distribution and delivery (prom. SG. 107 of 7.12.2004).

The operator is responsible for the reliable, safe and efficient operation of its own natural gas transmission networks and their facilities as well as the reliable natural gas transmission in accordance with the regulations, technical norms and standards applicable in this sector, as well as with the instructions provided by manufacturers of relevant equipment.

To ensure the networks safety and reliability, the transmission system operator performs:

- **prevention activities in transmission pipelines and gas pipelines connections:** checks, inspections and patrols of the pipeline route and linear valves prophylaxis, fittings and treatment facilities; continuous monitoring of electrochemical protection and maintenance and repair of cathode stations and facilities; preventive cleansing of the main gas pipelines inner surface and gas pipeline connections intertubular and conducting inspections to determine the technical condition of the pipes and the assessment of their suitability; execution of repairs under repair program following intertubular inspections and suitability assessment; scheduled strength and density trails;

- **activities related to compressor stations:** scheduled-preventing repairs of the main technological equipment, aggregates' controls and settings and common station automatic control, regulation and protection systems; strength and density trails of connectivity and technological facilities at the compressor stations and ensure the tightness of all the technological and auxiliary systems; inspection and setting of the protective equipment at compressor stations and fire extinguishing and fire alarm systems;

- **activities in gas regulation stations (GRS), automatic gas regulation stations (AGDS) and gas metering stations (GMS):** maintenance and setting of installations for filtering gas control and protective equipment and gas heating installations prophylaxis; planned repairs and maintenance activities; strength and density trails of vessels operating under pressure.

The gas transmission system operator maintains a reserve consisting of units and spare parts for compressor stations, to provide the necessary transmission power and also maintains a stock of spare parts, repair kits, valves, pipes and accessories. The operator maintains appropriate amounts of its own natural gas in each of the networks for the purpose of gas transmission to customers without compromising the operation reliability of the technological installations. Gas volume depends on the actual operating parameters of gas transmission networks.

The operator shall determine the range of minimum and maximum operational pressure in the gas transmission network for the purposes of gas transmission security and continuity.

Technical rules on networks operation in case of gas transmission limitation or interruption

The transmission system operator shall prepare a timetable of scheduled repairs and reconstruction of gas networks facilities. The schedule contains data on the type of repair, its expected duration, as well as alleged limitation in gas transmission. After eliminating the reasons of transmission limitation or interruption, it shall recover the gas transmission in the networks in the agreed parameters.

The transmission system operator shall develop procedures in emergency situations.

The transmission system operator provides preventive actions in time of accidents and emergency situations, as follows:

- Develops and implements an emergency plan for carrying out rescue and emergency recovering works in case of disasters, accidents and catastrophes, which is consistent with the Emergency Situations Action Plan approved by Order of the Minister of

Economy and Energy – the competent authority under Regulation (EU) № 994/2010 of the European Parliament and of the Council.

- Organizes an operational standing committee for consequences prevention and elimination of disasters, accidents and catastrophes to manage safety, rescue and emergency activities in emergency and disaster situations.
- Provides emergency operating groups in the transmission network operational areas for timely response in case of an emergency or accident and execution of urgent emergency rescue work.
- Organizes day and night shifts of dispatchers to manage the technological process, maintaining readiness for emergency notification and emergency situations in Chief Dispatching Centre, Dispatch district offices, compressor stations and underground gas storage facility.

In the event of crisis situations when the of transmission networks modes are disrupted, the operator acts according to the Emergency Situations Plan under Regulation (EC) № 994/2010, developing and coordinating the regime schemes of the network operation, reporting and analyzing all entry-exit boundary conditions (bids, pressure, volumes, etc.), the gas transmission networks status (effective configurations), weather forecast, neighboring transmission systems status and inertness degree.

The procedure of introducing limitation regime, suspension or limitation of production or supply of natural gas is determined by an Ordinance of the Minister of Energy.

4.1.3. Network and LNG tariff for connection and access

Pursuant to the requirements of Art. 41, § 6 (b) of Directive 2009/73/EC, by Decision № P-119/26.08.2010, EWRC approved Methodology on calculation and final imbalance tariffs that Bulgartransgaz EAD has made public, under the obligation of art. 7, paragraph 3 of the Regulation. Imbalance prices reflect as accurately as possible costs and at the same time provide appropriate incentives for network users to balance their gas input and offtake from the system and avoid mutual cross-subsidization between network users and shall not hamper the entry of new market participants. Balancing the natural gas market is through the available in the system gas, purchased at regulated prices by the Public Provider., the possibilities of natural gas extraction and injection in Chiren UGS are used to compensate the seasonal consumption irregularity.

The natural gas balancing market functioning in Bulgaria is in process of development and harmonization with the European Regulation (EC) № 715/2009 on conditions for access, with the developed by ERGEG 's Guidelines for Good Practices for Gas Balancing and Regulation (EU) № 312/2014 of the European Commission of 26 March 2014 establishing the Network Code on balancing the gas transmission networks. Gas transmission networks balancing requirements are included in the draft Natural Gas Market Rules. In 2014, given the Energy Act amendments and to ensure the requirements of energy market liberalization and complete transposition of Directive 2009/73/EC concerning common rules on internal natural gas market, EWRC adopted the following regulations:

1. Methodology on pricing natural gas access and transmission in gas transmission networks, owned by Bulgartransgaz EAD

This methodology defines the terms and conditions of price formation of natural gas access and transmission in the national gas transmission network and transit transmission network, owned by Bulgartransgaz EAD, including:

- pricing model on entry points/areas and exit points/areas and on services provided;
- tariffs and tariff structure setting;

- price formation under “revenue cap” regulation;
- key requirements and components of price formation;
- costs allocation (respectively, revenue requirements) by entry points/areas and exit points/areas and by services provided;
- procedure on price formation and adjustment.

The methodology applies to pricing of natural gas access and transmission in each of the gas transmission networks owned by the operator Bulgartransgaz EAD or in the transmission system.

The purpose of the methodology is to ensure price fixing for individual entry and exit points as well as in established price zones in accordance with the following principles:

- transparency in price formation;
- price application in non-discriminatory manner to users of the respective networks;
- taking into account the need for integrity of the networks and their improvement;
- to reflect actual costs required for the provision of natural gas transmission services;
- to include economically justified return on existing assets and new investments.

The costs allocation mechanism (respectively, approved annual revenue requirements) by entry points/areas and exit points/areas, ensures the formation of non-discriminatory prices that reflect costs and facilitate efficient gas trade and efficient use of gas transmission networks, while preventing cross-subsidization between network users.

Access and transmission prices in natural gas transmission networks are formed in accordance with the principles of price regulation stipulated in the Energy Act.

2. Guidelines on pricing access and storage of natural gas storage facilities applying "rate of return on capital" regulation

These guidelines define the price formation of access and storage of natural gas storage facilities, which is performed by EWRC under EA and Ordinance № 2 of 2013 on natural gas prices regulation (ONGPR, Prom. SG No.33 of 2013), as well as the type, form and content of information needed for pricing that licensed companies must submit when applying for prices.

The price regulation method of natural gas access and storage prices in storage facilities is “rate of return on capital” under Art. 3, para. 2 item 1 of ONGPR, whereby the Commission following a regulatory review approves prices and annual revenue requirements of the energy company for the regulatory period.

Prices of access and storage in natural gas storage facilities are formed based on the approved by the Commission annual revenue requirements under Art.9 of ONGPR and established storage parameters in the corresponding period.

The price of transmission through the system is regulated by the method “rate of return on capital”. The tariff model applied to the transmission company is “entry-exit”. In EA art.197, para.9, the access and usage terms of foreign gas facilities is regulated. The connected to the gas transmission network customers (in case of technical possibility and free capacity) may provide their own facilities to the relevant distribution network operator, a license holder, for the purposes of natural gas distribution to other customers in the territory defined in the license. The usage is to be provided after concluding of a contract at a negotiated price defined through methodology approved by the Commission. In the licensee contract the terms and conditions of the usage are negotiated, including the terms and conditions of the operative management and natural gas metering, supplied to each of the customers, including the person providing usage, to guarantee the unified operative management and metering of the supplied

to the customers natural gas. At the absence of consent, the Commission shall order provision of usage and payment of the price defined by EWRC following the methodology.

Prices of the activities “natural gas distribution” and “natural gas supply by an end supplier” have been regulated under the “price cap” method, under art. 3 of Ordinance № 2 of 19 March 2013 on natural gas price regulation.

In relation to the adopted pricing method EWRC annually collects data on the licensed companies’ activities reports in terms of investment, network constructed, number of users and consumption and they are compared to the data in the approved business plans.

EWRC requires information from all licensees and conducts ongoing monitoring on: number of interruptions, interruptions duration, number of complaints, response time to complaints and time to correct metering errors in order to improve the quality of natural gas supply.

At this stage, quality of supply does not affect tariffs.

4.1.4. Cross-border issues

Under EA art.170, para.1, item 9 the transmission system operator has the duty to provide sufficient cross-border capacity aiming the European gas transmission infrastructure integration, satisfying all economically feasible and technically realistic capacity requests, keeping in mind the observance of gas supply security requirements. Pursuant to art.21, para.1, item 28, EWRC establishes cooperation concerning cross-border issues with regulatory authorities of other countries – Member states and with ACER, and to conclude cooperation agreements with NRAs.

At present, there is no system congestion, neither on national, nor on cross-border level, since the transmission system project capacity is 8 billion m³ and the actual annual consumption does not exceed 40% of the maximum projected consumption. The available capacities allocation in 2014 was ‘first come first served’ principle and under the Rules on provision of access to natural gas transmission and/or distribution networks and access to the natural gas storage facilities, the possible overall available capacity allocation mechanisms of each entry/exit point and to the network as a whole, could be as follows:

1. Proportionate allocation;
2. Auction procedure;
3. Opened request (in case of new gas infrastructure).

4.1.5. Compliance

The power of the Regulator under art.41, §1 d of the Directive is transposed in art.21, para. 1, item 31 of EA, namely to comply with and implement any relevant legally binding decisions of ACER and EC. The Regulator also, has the duty to ensure the compliance of the transmission and distribution system operators, as well as of all natural gas undertakings in their obligation under the Directive, under Regulation (EC) № 715/2009 and under any relevant Community legislation.

Regarding Bulgartransgaz EAD in its role as independent transmission operator, after its certification notification, EWRC’s powers to regulate its activities are stipulated in art. 21, para. 3 of EA.

4.2. Promoting competition

4.2.1 Wholesale markets

In accordance with the main objectives of Directive 2009/73/EC of achieving a fully operational internal market with non-discriminatory access to the network and fair natural gas pricing, by EWRC Decision Bulgargaz EAD and Bulgartransgaz EAD have been transformed through unbundling into independent business entities. Thus the legal, functional and accounting separation of natural gas transmission and natural gas public supply has been realized.

The Directive's independence requirement of operators is respected by the transmission system operator Bulgartransgaz EAD as it was unbundled as an independent entity within the vertically integrated undertaking BEH EAD and persons responsible for the management, including operational management are not involved in the management of the other companies in the vertically integrated undertaking. The following activities have been horizontally separated: natural gas production, import, transmission, storage, distribution, supply and trade.

Under the current “Energy Strategy of Bulgaria” and in accordance with Directive 2009/73/EC and Regulation (EC) №715/2009/EC in 2014 the gas sector in Bulgaria developed towards market liberalization.

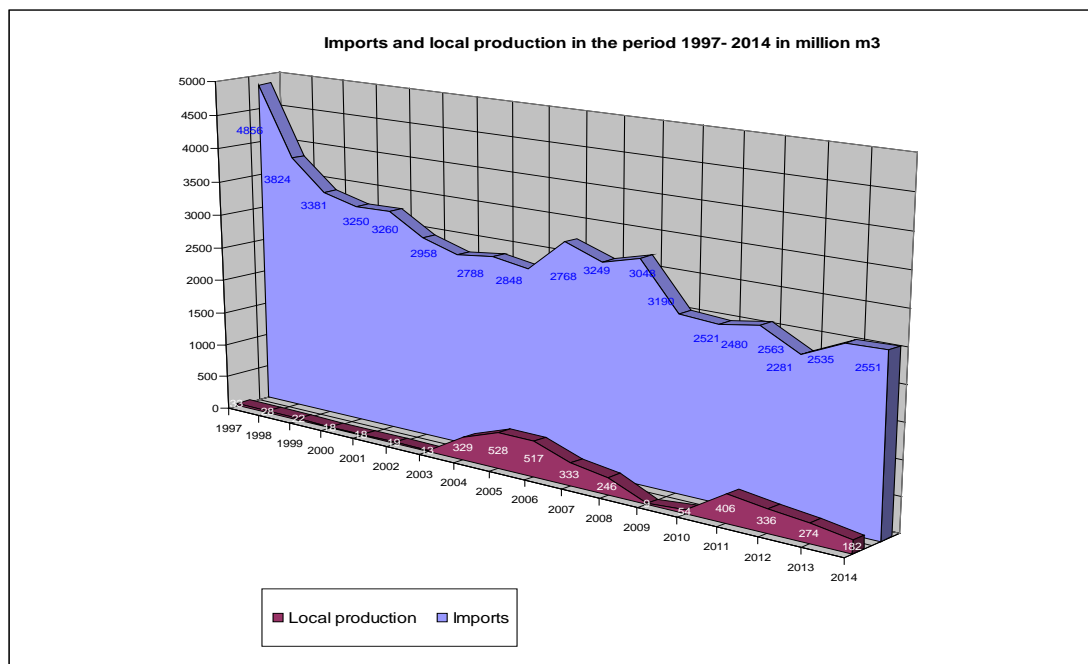
In 2014 natural gas supply to the Bulgarian market was realized by several sources: OOO Gazprom Eksport (for the public provider), Overgas Inc. AD (imports) and Petroceltic Ltd. and Oil and Gas Exploration and Production AD (local extraction).

Under Art. 180, para. 1 of EA, every customer connected to the transmission or distribution network shall have the right to choose supplier of natural gas. In 2014 three business users and eight gas distribution companies took the benefit of this right. In the reported year no households have benefited this right.

Trends in the natural gas market in Bulgaria are presented in tables and graphs below:

Natural gas imports and local production for the period 1997 – 2014 in million m³

Year	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Import	4856	3824	3381	3250	3260	2958	2788	2848	2768	3249	3048	3190	2521	2480	2563	2281	2535	2551
Local extraction	33	28	22	18	18	19	13	329	528	517	333	246	9	54	406	336	274	182
Total	4889	3852	3403	3268	3278	2977	2801	3177	3296	3766	3381	3436	2530	2534	2969	2617	2809	2733

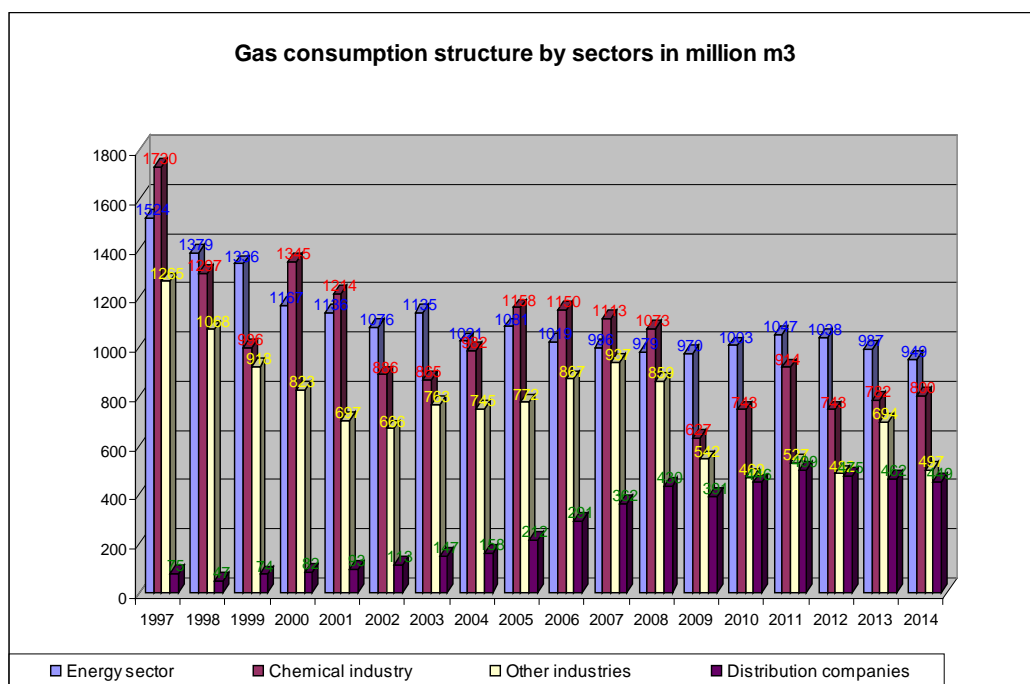


Quantities of realized natural gas in 2014 were 2 695 million m³ and the consumption structure by sectors was the following:

- Energy sector – 949 million m³ or 35 %
- Chemical industry – 800 million m³ or 30 %
- Other industries – 497 million m³ or 18 %
- Distribution companies – 449 million m³ or 17 %

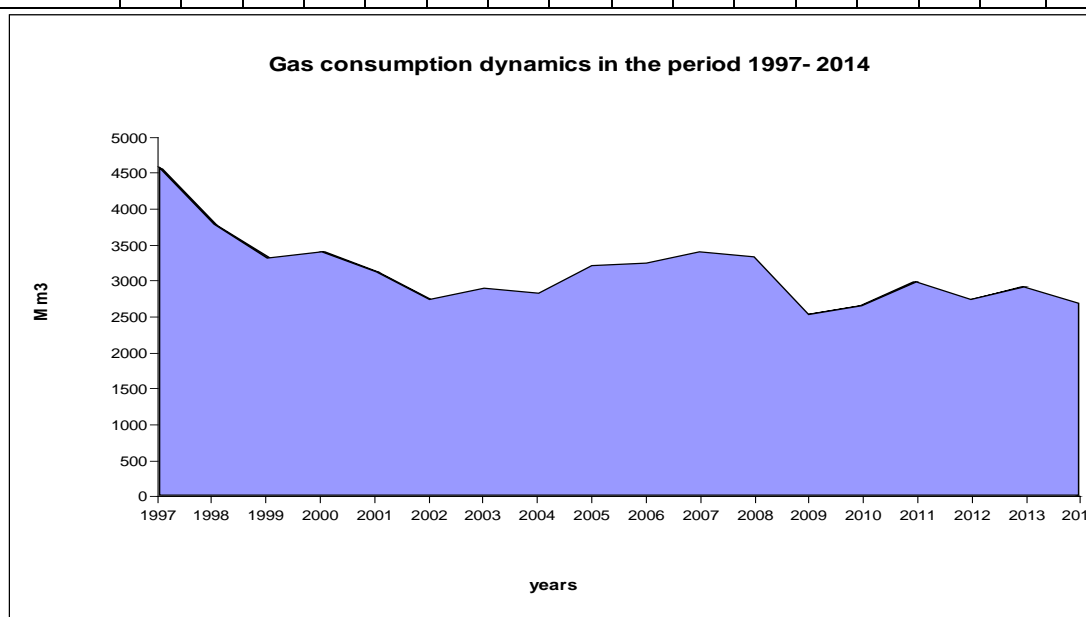
Natural gas consumption structure by sectors in million m³

Year	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Energy	1 524	1 379	1 336	1 167	1 136	1 076	1 135	1 021	1 081	1 019	996	979	970	1 003	1 047	1 038	987	949
Chemical industry	1 730	1 297	996	1 345	1 214	886	865	982	1 158	1 150	1 113	1 073	627	743	914	743	782	800
Other industries	1 265	1 068	918	823	697	666	763	745	772	867	937	859	542	469	527	482	694	497
Distribution companies	75	47	74	82	93	113	147	158	212	291	362	430	391	446	499	475	462	449
Total	4 594	3 791	3 324	3 417	3 140	2 741	2 910	2 906	3 223	3 327	3 408	3 341	2 530	2 661	2 987	2 738	2 925	2 695



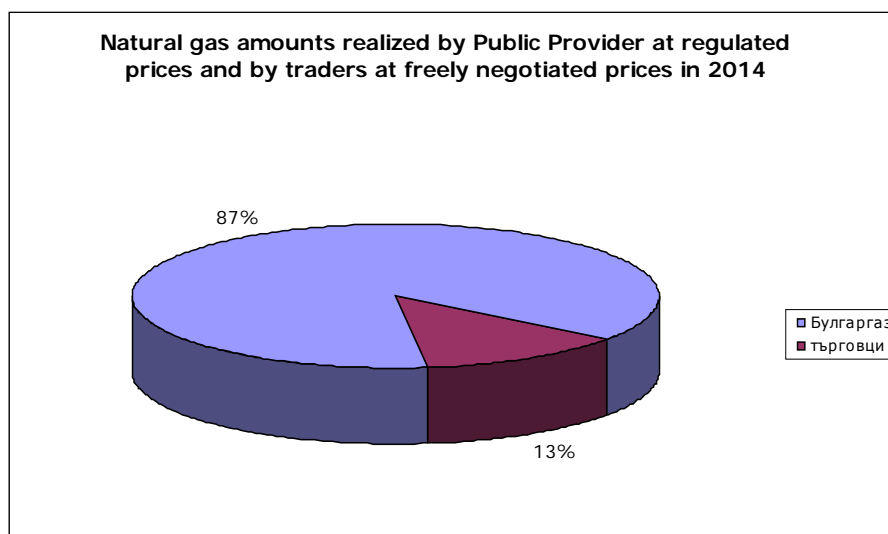
Natural gas consumption dynamics in Bulgaria in the period 1997 – 2014 in million m³

Year	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Consumption	4594	3791	3324	3417	3140	2741	2910	2836	3223	3253	3408	3341	2530	2661	2987	2738	2925	2695



In 2014 the Public Provider Bulgargaz EAD has delivered 159 million m³ natural gas to Bulgartransgaz EAD, of which 19 million m³ were for transmission network operator’s needs and 140 million m³- for storage in Chiren UGS, in pursuance of an Order of the Minister of Energy under Art. 70 of EA, in connection to Emergency Action Plan under Regulation № 994/2010 and these amounts are not included in the above graphs on consumption structure and dynamics.

The following chart presents the ratio of the natural gas quantity sold by the Public Provider (to end customers and gas distribution companies) at regulated prices and by traders also to end customers and gas distribution companies, but at freely negotiated prices.



Public Provider Bulgargaz EAD traded on regulated by EWRC prices and its share in natural gas sales in 2014 was 87%. The remaining 13% were made by traders.

Gas supply in the territory of the Republic of Bulgaria is carried out in a transmission network owned by Bulgartransgaz EAD and distribution networks owned by the respective distribution companies. In the territory of the country, a transit pipeline owned by Bulgartransgaz EAD exists and it transports natural gas to the territories of Greece, FYROM and Turkey. Natural gas public supply activity is carried out by Bulgargaz EAD. Natural gas at the entry to the gas transmission network is supplied under an agreement with an external supplier.

Natural gas public provision and supply under EA are services of public interest and as such are carried out by licensed companies. Natural gas for the needs of the Bulgarian market is provided mainly from Russia on the basis of agreements between the Public Provider Bulgargaz EAD on one hand and OOO Gazprom експорт on the other. Local production share to ensure the internal market needs is negligible. Bulgargaz EAD has signed a contract for the purchase of locally extracted natural gas with Petroceltic Ltd. Bulgartransgaz EAD owns and manages transmission and transit pipelines - high pressure and the underground gas storage facility Chiren.

Natural gas transmission

Natural gas supply to consumers in the Republic of Bulgaria is mainly carried out via the national gas transmission network, a complex facility consisting of 1700 km gas pipelines and high pressure gas branches, three compressor stations with a total installed capacity of 49 MW, gas regulation stations, metering stations, electrochemical protection systems, communication system, information system and other auxiliary facilities. The natural gas transmission network has sufficient capacity to meet current natural gas demand. Currently, about 40% of the system's maximum technical capacity has been used. Natural gas transported in the national transmission network is provided by imports from Russia (approximately 90%) and local production (approximately 10%). As transmission system operator Bulgartransgaz EAD by its Chief Dispatching Centre provides single management, reliable operation and transmission of natural gas through the transmission system and metering in compliance with the quality requirements. The company maintains the facilities and equipment of the transmission system in accordance with the technical requirements and safety rules at work,

respecting European environmental protection standards and transmission system development plans. There is a decrease of 1.80% of transported natural gas quantities in 2014, compared to the quantities realized in 2013. The decrease is due to reduced natural gas consumption of mainly in the period January - March 2014. The lowest amount of natural gas transported was in August - 142.16 million m³ and it were lower then the one in the same month of 2013, by 26.98%.

Natural gas transit transmission

Bulgartransgaz EAD performs natural gas transit through the territory of the Republic of Bulgaria to neighboring countries - Turkey, Greece and FYROM. Quantitative and qualitative analysis of natural gas inflows in the transit direction is performed in gas metering stations Negru Voda 2 and 3. The transmission of natural gas by transmission directions is realized respectively at Malkochlar GMS for Turkey, Strimonohori GMS for Greece and Zhidilovo GMS for FYROM.

The natural gas transit contract in the above directions was concluded in 1998 with OOO Gazprom export and in Appendix № 11 of 2006 the duration was extended until 2030. The transit fee is negotiated in US dollars for requested to be transported 1000 m³ natural gas per 100 km and another separate transported 1000 m³ natural gas per 100 km, updated annually with the inflation recorded in EU states in the previous year.

There is a reduction of total transit volumes in 2014 (14 816.152 million m³) compared to 2013 (15 807 078 million m³) with 990.93 million m³ or 6.27%, mainly due to the decrease in the quantities transported in Greece direction. As it comes to the different directions of transited natural gas shares, an increase in the transited gas in direction Turkey is observed, as compared to the total amounts for 2013 its share was 82.42%, and for 2014 increased to 87.31%. The share of transit quantities in the other two directions decreased significantly: in direction Greece - 11.78% of total transited gas in 2014, with 16.57% in 2013 and in direction FYROM - 0.91% of total transited gas in 2014, with 1.01% in 2013.

In 2014 actually transited quantities of natural gas to Turkey were 12 936.24 million m³, representing 92.40% of the contracted capacity for the same period, amounting to 14 000 million m³. Actual transit quantities in this direction decreased by 0.71% compared to actually transited gas in the same period of 2013.

Actually transited quantities to Greece in 2014 amounted to 1 745.09 million m³ or 58.17% of the contracted capacity for the same period, amounting to 3000 million m³. Actually transited gas quantities in this direction decreased by 33.39% compared to the same period in 2013.

The reported quantities transited to Macedonia amount to 134.83 million m³, which represents only 16.85% of contracted capacity for the period, which is 800 million m³. Actually transited gas quantities in this direction also decreased by 15.34% compared to those in 2013.

Natural gas storage

Natural gas storage activity is performed in the only one in the country underground gas storage facility Chiren (Chiren UGS), owned by Bulgartransgaz EAD. Chiren UGS is a complex of underground and surface facilities: operating boreholes, collecting gas pipelines (train) to them, compressor stations with a total installed capacity of 10 MW, facilities for preparation, processing, control and measurement of gas and other associated facilities. Technological process associated with the natural gas storage activity is a seasonal (cyclical) and represents injecting gas from/to the underground gas storage. In 2014 the Public Provider Bulgargaz EAD has delivered 159 million m³ to Bulgartransgaz EAD, of which 19 million m³ were for its own needs and 140 million m³ - storage in Chiren UGS pursuant to an order of the Minister of Energy under Art. 70 of EA, in connection to Emergency Action Plan under Regulation № 994/2010 and these amounts are not included in the above graphs on consumption structure and dynamics.

Natural gas at the gas transmission network entry is supplied by two external suppliers (OOO Gazprom eksport and Overgas Inc. AD) and one domestic supplier of local gas (Petroceltic Ltd). Overgas Inc. AD organizes the import and transport of natural gas through the transmission network to its clients. Bulgartransgaz EAD owns the gas transmission network, to which gas distribution companies are connected and about 250 directly connected consumers too.

Under art.176, para.1 of EA, extractive companies or natural gas traders, on one hand, and the natural gas public provider, suppliers of last resort, storage facilities operators, liquid natural gas facilities operators, natural gas traders or customers – on the other, conclude natural gas transactions among each other at freely negotiated prices.

4.2.2. Retail market

4.2.2.1. Monitoring the prices levels, the level of transparency, the level and effectiveness of the market opening and the competition

When regulating the prices for natural gas distribution and supply EWRC takes into account the characteristics of the market, including the fact that the needed natural gas distribution infrastructure in the country is still in process of construction and consumers connected to the natural gas distribution network are few. EWRC applies a regulatory mechanism, which ensures balanced incentives for the natural gas distribution enterprises to continue the development of the networks and the connection of new consumers aiming the increase of consumption. One of the incentives is the defined target rate of return on equity for the activities distribution and end supplier provision. EWRC approves cost-based tariff structures, part of the pricing application, where the company may propose justified differentiation of consumers into groups and subgroups, depending on similar characteristics of consumption and/or another feature, for which it may request approval of separate prices. In this sense, the types of tariffs in force of the gas distribution companies end consumers are separated depending on the type of consumption (industrial, publicly administrative and households), evenness and unevenness of consumption and the relevant consumption.

Prices are formed under Ordinance № 2 on natural gas price regulation.

The Energy Act regulates the obligation of the transmission undertaking to connect to its network at a defined by it point the distribution companies, extraction companies and companies for natural gas storage. The obligation of distribution companies to connect and provide the gas supply to consumers at conditions of equal treatment is regulated in EA, with complying with the technical requirements of reliability and safety. Conditions of connecting to the transmission and distribution networks, general conditions of contracts, natural gas prices and rules for work with consumers are approved by EWRC and are publicly available, placed at a prominent place in the clients' centers of the companies and on the internet sites of the gas transmission and gas distribution companies.

The Law does not require issuance of a license for natural gas trade, thus giving a full freedom for traders. Natural gas trade market is 100 % opened.

Monitoring the natural gas market stimulates retail competition. EWRC permanently monitors the market with the view to ensure non-discrimination between all market participants, as well as between the participants of one and the same category and to promote efficient competition and proper market operation. Regarding the latter, when exercising its controlling powers, EWRC carries out scheduled inspections of the energy companies, as well as surprise inspections in case of filed complaints and signals.

Regarding its controlling powers, EWRC is in a close cooperation with the Consumer Protection Commission and with some other non-governmental organizations for consumer protection.

EWRC monitors the energy companies' obligations related to provision of information on: ways of payment, disconnection or restoring of supply prices, prices for maintenance services and other services prices concerning licensed activities; change of supplier procedure and information about the lack of additional payments for energy services consumers when shifting supplier; real consumed quantities and costs incurred and no additional payments owed for this service; elaboration of final equalizing bill at each supplier shift.

The Commission monitors and inspects the gas distribution companies regarding the compliance of the set in their approved business plans parameters connected with their duties under the licenses for the activities of natural gas distribution and supply. Gas distribution companies' business plan performance in 2014 is given below:

Gas distribution companies	Constructed network for 2014	Investment 2014	Number of consumers (accumulative) as of 31 Dec 2014		Natural gas consumed, thousand norm m ³ 2014	
	m	Thousand BGN	Non-households	Households	Non-households	Households
Total	130 578	26 677	5 929	71 706	388 988	61 352

4.2.3. Recommendation on supply prices, investigations and measures to promote effective competition

In the past 2014 the Bulgarian regulatory authority did not give any recommendations concerning the prices of the supplied natural gas. However, EWRC published information on the approved actual marginal prices, statistics and analyses.

The provision of Article 30, para.2 of EA stipulates that the prices of electricity, natural gas and services provided by energy companies are not subject to regulation by the Commission when the later finds out the existence of competition, which creates pre-conditions for the free negotiation of prices under market conditions for each energy sector activity.

In this respect, as far as natural gas sector is concerned, pre-conditions for the existence of competition in the market are provided by the legislature through the provision of art.180, para.1 of EA: "Every customer connected to the gas transmission and / or gas distribution network may choose a natural gas supplier, regardless of the European Union member state in which the supplier is registered, provided the supplier complies with the rules under art.173, para.1 and the security of supply requirements".

In line with art.181 of EA, natural gas contracts are concluded at regulated by the Commission prices for services of public interest regarding transmission, distribution and supply and at freely negotiated prices among the parties – prices outside the public interest services.

To achieve the existence of competition, which is a prerequisite for free negotiation of electricity and natural gas prices at market conditions, an effective market opening is needed, an establishment of a single EU natural gas market, which is in the interest of citizens and industry. This can be achieved through the implementation of the inter-connection projects, which will enable the natural gas supply from other sources and will increase competition and the possibilities to choose a supplier. The interconnection projects are a priority for Bulgaria and have significant influence regarding the security of supply in the region.

4.3. Security of supply

Pursuant to art. 4, para. 2, item 4a of EA, the Ministry of economy and energy to be the competent authority concerning the security of supply in the meaning of Regulation (EC) 994/2010 of EP and the Council. In line with art.72 a of EA, the Minister of economy and energy after consultations with natural gas companies and organizations representing the household and non-household customers' interests and with EWRC introducing at national level:

1. Preventive action plan containing the measures needed for the removal or limitation of the identified risks impact in compliance with the risk assessment.
2. Emergency action plan containing the measures needed for the removal or mitigation of natural gas supply interruption impact.

Pursuant to the obligations under Regulation (EC) 994/2010 Art.6, § 5, namely: "The transmission system operators provide a permanent bi-directional capacity on all cross-border interconnectors between Member States as soon as possible and no later than 3 December 2013", Bulgartransgaz EAD as of 1 January 2014, has provided transmission technical capability of 1 million m³/d physical and/or commercial reverse transmission at Kulata/Sidirocastro IP.

4.3.1. Monitoring balance of supply and demand

Natural gas supplies for the Bulgarian gas market are carried out by:

- Overgas Inc. AD
- Gazprom Export OOO
- Petroceltic EOOD

Since the beginning of 2013 Bulgargaz EAD has been purchasing natural gas on the basis of a new contract with Gazprom Export OOO. In 2014 Overgas Inc. AD, the second trader in the natural gas market continued to import and at the same time sells gas to distribution companies and end users. The local production share for domestic needs is provided by Petroceltic EOOD.

At this stage, natural gas supplies are made by one supplier (Russian Federation) in one route – through the territories of Ukraine, Moldova and Romania.

4.3.2. Measures to cover peak demand or shortfalls of suppliers:

- *Configuration of network, real gas flows, including possibilities of physical flows in both directions*

There are possibilities for reverse physical flow of natural gas from Greece and Turkey (2.4 million m³/day in the event of complete Russian gas supplies interruption). Reverse flow from Greece was realized at the end of January 2009 gas crisis, based on signed agreement.

- *Natural gas storage*

Natural gas storage activities are realized in the underground gas storage facility Chiren and the available stored natural gas amounts as of 1 Dec 2014 amounts at 349 million m³. In 2014, 294 million m³ natural gas were injected in the facility and 273 million m³ were withdrawn. These amounts are intended mainly for compensating the intermittent consumption as well as for guaranteeing security of supplies in the event of deficit.

- *Natural gas role in producing heat and power and in the proper industrial sector functioning*

The main part of natural gas realization is for industrial purposes – 98 %. The energy sector consumption share is 38 % of the total realized natural gas and the trend is for increase. Household sector consumption is very low – 2.3 % of the total natural gas consumption in the country.

- ***Interconnections construction projects***

- **Gas Interconnection Bulgaria - Greece**

Gas Interconnection Greece - Bulgaria (IGB) will connect directly the national transmission systems of Greece and Bulgaria. The project aims to diversify the natural gas supply sources to Bulgaria and South-eastern Europe. IGB gas pipeline is defined as a project of national significance both in Bulgaria and Greece and as a Project of Common Interest by the European Commission. IGB Project is essential to ensure security of supply for South East Europe. For the realization of the interconnector a new route will be created and new suppliers will have access to the market.

Natural gas interconnection Bulgaria-Greece is being realized by a mixed investment company ICGB AD with the participation of Bulgarian Energy Holding EAD (50 %) and the Greek investment company IGI Poseidon (50%). DEPA (Greece) and Edison (Italy) are shareholders in IGI Poseidon with equal shares. The interconnection's length on the route Komotini-Dimitrovgrad-Stara Zagora is 182 km, 151 km on Bulgarian territory and 31 km in Greece. The designed initial capacity of the interconnector shall be 3 billion m³/y and the max up to 5.5 billion m³/y at a next stage (with the construction of a compressed station), IGB gas pipeline shall have pipeline diameter 32'' (~813mm) and ~ 57 bar pressure at the entry point and ~ 42 bar pressure at the exit point. The pipeline is planned to operate in reverse mode and the downstream is in the direction of Greece - Bulgaria.

Environment Impact Assessment has been elaborated and adopted for the pipeline pursuant to the Environmental Protection Act (EPA), the evaluation process included a four-seasonal environmental monitoring in the territory of the route. Currently a detailed plot plan (DPP) and a working draft are being developed. By EC decision C (2010)5813, amended by EC decision C (2012) 6405, co-financing has been defined for the project of 45 million Euros under the European Energy Recovery Programme. The commissioning of the interconnector is envisaged for 2018.

Caspian basin (Caspian Sea) and Middle East Pool producers are planned to be the natural gas source for the pipeline and also producers of liquefied natural gas (via terminals of the Greek and Turkish coasts). The main potential gas suppliers are Azerbaijan, Turkmenistan and Iraq.

In the Bulgartransgaz EAD ten-year network development plan for the period 2014 – 2023 investments have been foreseen about the IGB pipeline connection to the gas transmission network in the connection point near Stara Zagora.

In relation to the implementation of the gas interconnection Bulgaria – Greece, ICGB AD has submitted to the Regulator an application for a temporary exemption of art.172d and art.172e of the Energy Act, respectively art.36 of Directive 2009/73/EC. Regarding the submitted application EWRC has approved the following documents: Phase I - Guidelines for the management and allocation of interconnection capacity of the gas interconnection Bulgaria - Greece (IGB) and Notice of participation with its annexes to conduct Phase I - Invitation to stakeholders to express interest in reserving capacity as part of the temporary exemption procedure under Art.172d and art.172e of EA, respectively Art. 36 of Directive 2009/73/EC; Phase II - Guidelines for the management and allocation of interconnection capacity for the IGB interconnector and Notice of participation with its annexes to conduct Phase II: Call for participants in phase “expression of interest” to submit binding offers for booking capacity in the interconnector IGB.

➤ **Gas Interconnection Bulgaria - Romania**

The reverse interconnection has total length 25 km, 15.4 km of which in the territory of the country, 7.5 km in the territory of Romania and 2.5 km underwater Danube river. The envisaged maximum capacity is 1.5 billion m³ (direction from Bulgaria to Romania) per year and the minimum – 0.5 billion m³ (direction from Romania to Bulgaria) per year, pipeline diameter Dn 500 mm and operational pressure Pn 54 bar.

Construction works on the ground part of the pipeline in the territory of Bulgaria and GMS Russe have been fulfilled. Hydraulic density and strength testing have been successfully completed too. Currently tests in operational conditions are being conducted (gas filling and 72-hour samples) and the site is to be adopted by the State Acceptance Commission.

Regarding the implementation of the underwater part of the route under Danube river, the pipe drilling needed to protect the optical cable has been carried out. At present, drilling works are being fulfilled in order to finalize the main pipeline. If no further complications associated with the specific geological structure of the area under the river appear and an increased river level, it is expected the construction work to be completed and start operation in 2015.

Projected total value of the project amounts at 23 823 836 Euros. Under Decision C (2010) 5962 of 06 Sep 2010 of the European Commission, Bulgartransgaz EAD and S.N.T.G.N. Transgaz S.A. – Romania have been awarded a grant under the European Energy Recovery Programme (EERP) at the amount of 8 929 000 Euros. For the Bulgarian part of the project financing is provided as follows:

- Up to 4 375 294 Euros – by EERP (the amounts utilized to date - 1 312 000 Euros). Under the contracts concluded and the invoices issued 2 015 827 Euros are to be utilized.
- The remaining part of the project budget is to be co-financed by Bulgartransgaz EAD. Under the contracts concluded to date co-financing amounts at 5 478 278 Euros.
- Costs foreseen for the project in 2014 are 2 417 000 BGN own funds of Bulgartransgaz EAD.

The project has been included in the Ten-year network development plan of Bulgartransgaz EAD for the period 2014 - 2023, and the Ten-year network development plan of ENTSOG (TYNDP) for 2012-2021.

➤ **Gas Interconnection Bulgaria - Serbia**

Interconnector Pipeline Sofia – Dimitrovgrad (Serbia) – Nish (Serbia) is designed to be a reverse one and to connect the national gas transmission networks of Bulgaria and Serbia. The goal is to achieve diversification of the routes, the intersystem connectivity and transmission of natural gas. The Pipeline is expected to provide annual supply capacity of 1.8 billion m³/year and maximum capacity of 3.1 billion m³.

For construction were carried out feasibility studies and archeological excavations along the pipeline route. The necessary procedure for approval of the pipeline route and the sites was carried out and the Agricultural Lands Commission at the Ministry of Agriculture and Food issued a Decision. Detailed development plan (DDP) - plot plan (PP) – final project and investment project were assigned and the necessary procedures for the acquisition of property rights on property for the sites to the pipeline and establishment of easement for the linear part of the pipeline.

In the ten-year networks development plan of Bulgartransgaz EAD for the period 2014 – 2023, investments for the interconnection with IBS pipeline to the transmission network have been planned. The expected commissioning of the construction is set for the end of 2017.

➤ **Gas Interconnection Bulgaria - Turkey**

The Interconnection is envisaged to be constructed as a further development of the existing system connection between Bulgartransgaz EAD and Botash C.A. – Turkey by creating a possibility for reversibility conditions applicable depending on market interest. The currently reviewed Interconnection Bulgaria - Turkey working route in the territory of Bulgaria is Lozenets compressed station to Malkochlar GMS, with capacity 3 billion m³/y, with the Bulgarian and Turkish gas transmission operators as investors - Bulgartransgaz EAD and Botash C.A. respectively. The route is the result of the gas interconnection feasibility investigation and assessment prepared by an ad hoc Working Group established with Order ПД 16-141 / 10.02.2011 of the Minister of Economy and Energy.

The Interconnection Bulgaria - Turkey has been ranked in the list of Projects of Common Interest of the European Commission, published on October 14, 2013. On 21 November 2014 the European Commission published a list of activities selected to receive financial support under the Connecting Europe CEF-Energy. Among them is the feasibility study for the interconnection Bulgaria-Turkey project. The maximum grant amount is € 190,000. Indicative value will be determined after the completion of the feasibility study. The estimated timeline for the construction and commissioning is 2018.

The project is included in the Ten-year network development plan of Bulgartransgaz EAD for the period 2014 - 2023, the Ten-year network development plan of ENTSOG (TYNDP) for 2012-2021, the Regional Investment plan of Central and Eastern Europe (GRIP CEE) 2014-2023 and the Regional Investment plan of the Southern Gas Corridor region (GRIP SGC) 2014-2023.

- **Eastring Project**

Eastring is designed to start from the existing compressor station Veľké Kapušany in Slovakia, to pass through the territory of Hungary and to reach the Romanian-Bulgarian border near the village of Kardam. Various route options have been considered and according to them the length of the pipeline varies between 744 km and 1015 km and the capacity between 20 and 40 billion m³/y. The concept developed at this stage by Bulgartransgaz EAD envisages the construction of a new gas pipeline in the area of the village of Strandzha near the border with Turkey to the village of Kardam close to the Romanian border, with a length of 258 km, diameter Dn 1400 and operational pressure 75 bar, as well as construction of a new compressor station near the village of Strandzha with 60 MW installed capacity. The new pipeline capacity is 20 billion m³/y, and the expected investment amounts to 700 M Euros. Estimated time of completion is mid 2022. The implementation of the project will provide a gas supply corridor between Bulgaria, the Central Europe gas markets, Western Europe and Turkey.

South Stream Project

In terms of South Stream project, there is uncertainty on the concept of future development and interconnection to the transmission system of Bulgartransgaz EAD.

5. Consumer protection and dispute settlement in the electricity and gas sectors

5.1. Consumer protection

Pursuant to the requirements of Art.37 (1) (n) of Directive 2009/72/EC to ensure quick access and provision of data on customer consumption, commercial metering devices, including the devices ruling the tariffs, are located in a way that the consumer has the opportunity to observe the figures displayed in the commercial metering devices. In cases where it is needed to guarantee the life and health of citizens, property, power quality, continuity of supply and the security and reliability of the energy system, commercial metering

devices are put in place with difficult access, the electricity distribution company shall be obliged to provide at its own account the possibility of visual inspection within three (3) days following a written request. The same obligation has been imposed on licensed companies in the natural gas sector under approved by EWRC general conditions. Apart from that, energy companies have established in every major city of their licensed territory customer service centres and have their own internet sites for each user to have an access to them. Gas energy companies are required to maintain sufficient numbers of centres working with clients in the licensed area to meet their needs. In these centres, licensees' customers can obtain information and submit all documents (including requests, complaints and suggestions) associated with the natural gas distribution services and natural gas supply by end supplier.

Another key direction of the electricity distribution companies' investment policy is related to the improvement of the customer service. A significant portion of these investments were directed towards the implementation of a unified information system for all companies, which enables the customers to use the services of the customer service centres and to pay electricity bills from any point in the territory of Bulgaria, regardless of the consumption location. The companies run uniform call centres for information and references that serve all customers in each licensed area.

EA Section VI – Measures to protect the end consumers - in pursuance of the requirement of art. 41 of Directive 2009/72/EC, defines that agreements between energy services consumers and the energy companies providing services of public interest, shall compulsorily contain: data identifying the energy company, including address; the services provided and the conditions and terms of their provision; the means used to receive the up-to-date information for all applied prices of the proposed services; duration of agreement, conditions on temporary suspension, termination of their provision and of the agreement; terms on the unilateral termination of contract by the user of the energy services and the possibility of such termination without additional payment; terms and conditions on set-off and recovery of amounts at non-compliance with the quality requirements of the contracted services, including incorrect or delayed invoicing; energy services consumers rights, including information on procedures of handling and solving complaints; other terms as provided for in this act.

Under EA and Ordinance № 3 of 21 March 2013 on licensing the activities in the energy sector, energy companies provide to their energy services consumers information on: ways of payment, prices for disconnection and restoration of supply, service prices for maintenance and other service prices connected to the licensed activity; the supplier shifting procedure and information on lack of obligations of the consumers about additional payments when making the shift; real consumed quantities and costs incurred without obligation of additional payments owed for this service; elaboration of final equalizing bill at each supplier shift; every energy source share in the total supplied energy by the supplier during the previous calendar year in a comprehensible and clearly comparable way; existing resources of public information about the environment impact concerning at least the carbon dioxide emissions and radio active waste – a result of the different energy sources power generation in the total supplied energy provided by the supplier in the previous year. The Commission shall monitor compliance with the adopted network security and reliability standards and review their implementation by the network operators.

Regarding the obligation to monitor compliance of security and network reliability standards, the Commission has been working together with the Ministry of Energy on security and networks reliability rates, thus fulfilling the requirements of Art.37(1) (h) of Directive 2009/72/EC.

EWRC launched an approval procedure of electricity distribution and supply companies new General conditions, in order to ensure the equal electricity consumers rights and obligations throughout the country.

In 2014 a total of 2 406 complaints, applications, alerts and proposals of natural persons and organizations were filed at EWRC, allocated by sectors as follows:

- 1 297 in Electricity sector;
- 12 in Natural gas sector;
- 519 in Thermal Power sector;
- 578 in Water supply and sewerage sector.

All letters sent to companies required a reply to EWRC and also opinions and all actions taken on the set of problems to be communicated with applicants.

The analysis of complaints in 2014 in Electricity sector and their distribution by type shows certain trends. These refer mainly to delayed connection to the electricity distribution network, poor power quality, failure to provide access to energy facilities, disagreement with the accrued amounts of electricity, refusal by energy companies to contract the purchase of electric energy with RES generators and other.

Relatively the largest number of complaints relates to errors in the accounting and billing of electricity consumed.

The percentage shares of the total number of complaints in EWRC in 2014, Electricity sector, are divided into as follows:

- 16% errors in metering and invoicing of electricity and errors in billing;
- 10% requests for verification of the commercial metering device (CMD);
- 6% on consumer's right to be connected;
- 3% licensee's right to suspend supply.

Out of the complaints with registered files, 1053 have been considered under the procedure provided in Ordinance № 3 on licensing the activities in the energy sector, depending on their registry mode at the Commission, while on the remaining 189 it was necessary to collect additional evidence to solve the matters in the complaints.

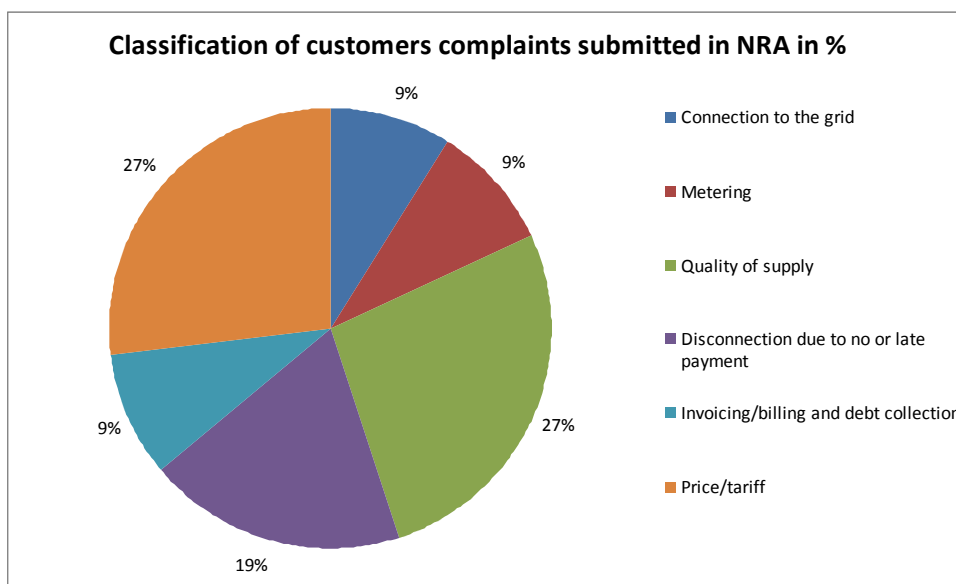
The submitted 1297 complaints in 2014 were 44% less than the submitted 2332 complaints in 2013.

Under Art. 144, para. 2 item 1 of Ordinance № 3 on licensing the activities in energy sector, tripartite meetings were organized and held to further clarify the circumstances of the complaints that in 90% of cases completed in dispute resolution.

The number of users in natural gas sector in 2014 was respectively 71 372 households and 6 103 business customers. Compared to 2013, in 2014 the number has increased: households - by 1262 and business - by 254. In 2014 EWRC received 12 pieces of consumer complaints in natural gas sector. By a decision of the Commission 8 complaints have been completed, 3 have been under consideration and 1 was withdrawn. Three of the complaints the Commission has found as justified and the companies were given binding instructions. The number of complaints in EWRC in 2014 decreased in comparison to 2013, when complaints were 45, which shows increased consumer awareness of the submission procedure and complaints handling.

Classification of submitted at EWRC complaints by customers according to the national gas indicators of the Council of European Energy Regulators (CEER), is as follows:

1. gas distribution network connection – 9 %
2. incorrect metering of gas consumed – 9 %;
3. quality of supply – 27 %
4. unfair commercial practices – 0 %
5. contracts, sales – 0 %;
6. gas supply recovery – 0 %;
7. disconnection due to no or late payment – 19 %;
8. billing – 9 %;
9. price/tariff – 27 %;
10. compensation – 0 %;
11. switching of supplier – 0 %;
12. customer services – 0 %.

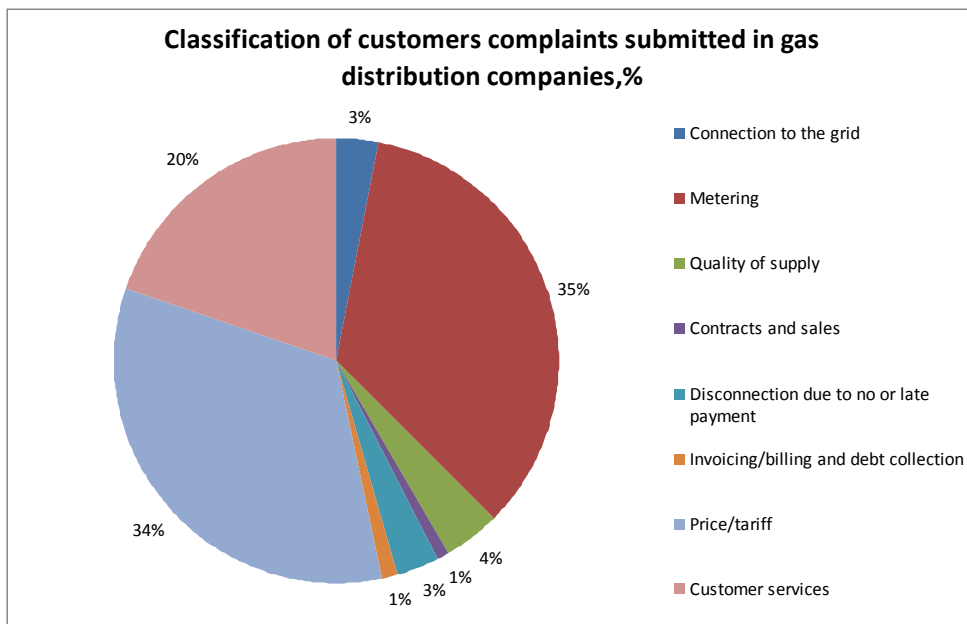


Complaints received in gas distribution companies

In gas distribution companies a total of 189 complaints from users have been received. The number of accepted complaints was 79 and the remaining was unfounded. The greatest number of complaints (113) was against Sofiagas EAD, which has the largest share of household customers. The complaints were mostly related to inaccurate metering of the gas consumed and the amounts charged.

Classification of submitted at gas distribution companies complaints by customers according to the national gas indicators of the Council of European Energy Regulators (CEER), is as follows:

1. gas distribution network connection – 3 %
2. incorrect metering of gas consumed – 35 %;
3. quality of supply – 4 %
4. unfair commercial practices – 0 %
5. contracts, sales – 1 %;
6. gas supply recovery – 0 %;
7. disconnection due to no or late payment – 3 %;
8. billing – 1 %;
9. price/tariff – 34 %;
10. compensation – 0 %;
11. switching of supplier – 0 %;
12. customer services – 20 %.



In 2014 the number of complaints submitted in the companies has decreased in comparison to 2013, when they were 278. It can be concluded that distribution companies have improved their work with clients and the quality of their services.

5.2. Dispute settlement

Amicable disputes settlement term and conditions are regulated by EA and Ordinance №3 on licensing the activities in the energy sector (Ordinance №3).

Within two months as of the complaint filing under art.22, para.1, item 1, 2 and 3 and para.2 of EA and art.146, para.1 Ordinance №3, EWRC may assist for a voluntary settlement. The time limit may be extended by another two months if the dispute nature requires the collection of additional data and information by the Regulator. Should an amicable settlement was not achieved or some of the parties rejected an amicable settlement, the Regulator shall make a decision on the complaint within two months as of receiving it. This period may be extended by two months if the dispute nature requires the collection of additional data and information by the Regulator. The extended period may be extended by another two months with the applicant's consent.