

**State Energy and Water Regulatory Commission (SEWRC)
Bulgaria**

**National Report
to the European Commission**

July 2009

Table of contents

1. Foreword	3
2. Main Developments in the Gas and Electricity Markets	4
3. Regulation and Performance of the Electricity Market	14
3.1. Regulatory Issues	14
3.2. Competition Issues	20
4. Regulation and Performance of the Natural Gas Market	28
4.1. Regulatory Issues	28
4.2. Competition Issues	30
5. Security of Supply	35
5.1. Electricity	35
5.2. Gas	38
6. Public Service Issues	42
6.1. Electricity	42
6.2. Gas	45

1. Foreword

In the last four years, the liberalized electricity and natural gas market in the Republic of Bulgaria is developing successfully.

The transition to full liberalization from a legal right to a practical possibility for all consumers requires certain changes in the legal norms and depends on the active position of all market players in order to reach the target of effectively functioning market mechanisms in the conditions of competition and transparency.

SEWRC has introduced standard methods of regulation which are gradually improving. The further development and expansion of the competitive electricity market in the Republic of Bulgaria aims to attain the priorities of competitiveness, energy security, sustainable development and management of the electricity system.

The recent economic crisis has led to significant changes in the energy markets – a fall in consumption as well as a fall in the regional prices of energy and fuels. This process has motivated consumers to look for the advantages of the liberalized market for greater choice, stronger competition, better service and security of supplies.

For its part, the energy companies are forced to improve their efficiency and competitiveness in order to keep their positions on the free market.

In addition, the diversification of energy supplies has proved to be a fundamental condition to guarantee the security of energy supplies and the effective functioning of the competitive pan-European market.

Under these conditions, SEWRC is striving to fulfill its key role to expand the market and ensure secure and quality supply of electricity and natural gas to consumers. The national regulator carries out incessant control on the fulfillment by the energy utilities of the terms and conditions of the licenses granted, including of the general conditions for the supply of end consumers approved by the regulator.

Prof. Eng. K. Shsushulov, D.Sc.
Chairman of SEWRC

2. Main developments in the gas and electricity markets

2.1. Main developments in the electricity market

Wholesale market

In line with Directive 2003/54/EC and under the Energy Act, the electricity market in the Republic of Bulgaria is fully liberalized since 1.07.2007.

The annual net output in the country in the reporting period is 39.64 TWh. With sales on the free market to the amount of 15.5 TWh – in the internal market and the region, the share of opening of the electricity market for 2008 is 39%.

In 2008, 29% of the internal consumption in the country is traded in the wholesale market at freely negotiated prices. With annual internal consumption of electricity of 34.64 TWh in 2008, the share of the quantity traded in the internal market is 10.1 TWh.

In 2008, the regulator issued licenses to 13 new companies for the activity of “electricity trading” with which the total number of licensed traders has become 56.

The electricity market in Bulgaria is characterized as national and well-integrated with the neighboring countries.

The activity and organization of the market in the country are regulated by the “Electricity Trading Rules” and “Auction Rules for the Allocation of Capacities on the Interconnections between the Control Area of Electricity System Operator EAD - «ESO» EAD (TSO), and its Neighboring Control Areas for the Year of 2008”. These Rules have been harmonized and approved by the national regulator.

The rules for trading with neighboring countries are in line with the effective EU rules and with the bilateral agreements and rules for cross-border exchange and trading with electricity. The latter also applies to the harmonization of the interconnection transfer capacities between the Bulgarian TSO and the operators of the neighboring transmission systems. The cross-border transfer capacity on the interconnections is allocated by the Auction Operator – Electricity System Operator (ESO) – in the form of commercial rights for transfer. The Auction Operator calculates and allocates the transfer capacities in line with the norms and rules of the European Network of Transmission System Operators for Electricity (ENTSO-E).

By tradition, Bulgaria is a net electricity exporter for the countries of the South East Europe region. In 2008, the share of net exports of the country exceeded 12% of the net electricity output of the country.

The market is organized by the Electricity System Operator. In line with the Energy Act, electricity trading in the country is carried out on the basis of bilateral contracts between the trading participants: producers, traders and consumers of electricity. The Electricity System Operator carries out the operational management and regulates the allocation of electricity loads of the electricity system, by taking into account the accepted and confirmed applications for transfer capacity of the trading participants on the basis of the Electricity Trading Rules and the Auction Rules. At the same time, ESO balances the energy system by technical and economical criteria, taking into consideration the received applications and bids for the balancing market.

At present, there is no electricity exchange organized in the country.

Retail market

At this stage, the electricity market in the country operates in line with a model, under which part of the transactions for sale of electricity are concluded at regulated prices, approved by the regulator, and the rest is traded on the liberalized market at freely negotiated prices between the participants in the electricity market.

The end suppliers supply and sell electricity to the protected consumers at regulated prices.

The activities on the electricity market do not cover at present the small economic enterprises and residential consumers. At this stage, the electricity market in the country covers part of the economic consumers connected to the MV network.

A certain share of the quantity of electricity output from separate producers in line with the Energy Act is purchased by the Public Provider for protected consumers at regulated prices. The quantities of electricity purchased at regulated prices from the producers with the framework of the «quota» set by the regulator in respect of each producer are determined on the basis of the principles of equal treatment and transparency in line with the methodology adopted by the regulator.

The regulated price for protected consumers in the country is formed as a mix of the prices of the electricity producers from different primary energy sources (nuclear fuel, coal, water energy). The rest of the electricity output can be sold by the producers on the liberalized market as equal participants.

Amendments are envisaged in the legislative framework aiming at expanding the market of electricity in the sector of small and medium-sized economic consumers.

In pursuance of the effective *Ordinance on regulating the prices of electric power*, in respect of the protected consumers, by a decision of the regulator, the following prices are set:

- the prices for access to the electricity distribution networks;
- the prices for transmission over the electricity distribution networks;
- the prices at which the end suppliers sell electricity to residential consumers and enterprises having less than 50 hired personnel and an annual turnover up to 10 million euro.

In 2008, the price for transmission over the distribution network was differentiated between a price for transmission over the electricity distribution networks and a price for access to the networks.

The main consumer groups in 2008 were as follows:

- Economic consumers at middle voltage – the price for these consumers includes: a price for electricity to an end supplier, a price for transmission over the electricity distribution network and a price for access to the electricity distribution network.

- Economic consumers at low voltage – the price for consumers at low voltage includes: a price for electricity to an end supplier, a price for transmission over the electricity distribution network and a price for access to the electricity distribution network.

- Residential consumers connected at low voltage – the price for electricity includes: a price for electricity to an end supplier, a price for transmission over the electricity distribution network and a price for access to the electricity distribution network.

In line with the Energy Act, the powers of the SEWRC include the review of complaints of consumers against licensees or of licensees against licensees relating to the performance of the licensed activity.

The terms and procedure for lodging complaints, their review and the procedure for voluntary settlement of disputes are established in a sub-regulatory act: the Ordinance on licensing the activities in the energy sector. The Commission has adopted Internal Rules for

reviewing complaints and requests for voluntary settlement of disputes in 2004, updated in 2008. These Rules regulate:

1. The review of complaints against licensees related to:
 - the right of the consumer to be connected for the supply of electricity, heat and natural gas;
 - the right of the licensee to terminate the connection and supply to the consumer of electricity, heat and natural gas in the cases established in the “General Conditions of the Contracts for the Supply, Sale...” on the part of the respective licensee approved by the Commission;
 - the conditions for the supply and the quality standards offered by the licensee to the consumers.
2. the conciliation procedure for voluntary settlement of disputes in the case of receipt of a written request by the parties;
3. a procedure for complaints and disputes in relation to competition;
4. the keeping of a register for the complaints and register of the requests for voluntary settlement of disputes.

SEWRC makes a thematic analysis every year of the received complaints under pre-defined indicators.

In 2008, the SEWRC registered 12% less complaints as compared to 2007. 10 scheduled checks were carried out in the electricity distribution companies and 4 extraordinary inspections of the gas distribution companies on the occasion of received complaints and warnings of consumers. The scheduled inspections were related to: a refusal for the delivery and sale of electricity, interruptions in the power supply, prepared and unpaid adjustment bills, carrying out the activity of distribution and sale of electricity by non-licensed persons, problems with the connection of new consumers, etc. The results of all checks were reviewed by the Commission and, in the cases of violations, penalty payments were imposed on the licensees and obligatory instructions were given, containing time limits for performance.

In order to optimize the results of the activities of the Commission in respect of the main consumer issues, in 2008, a working group was formed comprising of officials participating in the procedures for the review and consideration of files relating to complaints and requests for voluntary settlement of disputes. In case of a factual or legal complexity of the complaint, working groups comprising more officials may be appointed, and external experts may be consulted. In relation to consumer issues with a wide public concern, SEWRC works in collaboration with the other state institutions.

The main principles governing the activities of the SEWRC in the performance of its regulatory powers are the prevention and non-admissibility of infringements relating to the competition on the energy market, as well as ensuring a balance between the interests of the energy utilities and consumers.

Infrastructure

In 2008, the price for transmission over the distribution network was differentiated between a price for transmission over the electricity distribution networks and a price for access to the networks.

The prices approved in 2008 were as follows:

- The price for access to the electricity transmission network was paid to ESO by all users of the network and amounted to 0.00308 EUR/kWh.
- The price for transmission over the electricity transmission network was paid to the transmission company by all users of the network and amounted to 0.00464 EUR/kWh.

The regulator approved the rehabilitation of the electricity transmission system of the country with the modernization of transmission control and the transformation, realized by loan funds from the EBRD and EIB and own funds of the transmission company NEK EAD. The beginning of the commercial operation is forthcoming in 2010.

At the end of 2008, an interconnection of 400 kV was realized between Chervena Mogila substation (Bulgaria) and Shtip substation (FYROM), funded by loans from the EBRD and own funds of the two neighboring electricity transmission companies. The line will improve the parallel operation of the electricity systems of the region and will facilitate the creation of a more effective regional energy market.

The Electricity System Operator (ESO) carries out the operational management and regulates the allocation of electricity loads of the electricity system, by taking into account the accepted and confirmed applications for transfer capacity of the trading participants on the basis of the Electricity Trading Rules and the Auction Rules.

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

Regulation/Unbundling

In line with the Energy Act, the Electricity System Operator (ESO) is part of a vertically integrated enterprise, the Public Provider. But in line with the Act and the terms of the license, its activities are independent from a legal and organizational point of view, from a financial and accounting point of view and in view of the decision-making process in relation to the functions assigned to it by law from the other activities of the vertically integrated enterprise.

The legal, organizational and financial unbundling of ESO from the Public Provider has been ensured.

ESO prepares a compliance program subject to approval by the regulator, setting out the specific measures related to the performance of the conditions of the license and the requirements specified above. The program also includes specific obligations of the employees. Every year, ESO submits an annual report on the fulfillment of the measures under the objectives specified in the program and the report is submitted to the regulator for approval.

The performance of the compliance program also takes into account and ensures the independence of ESO, of the persons responsible for the management, including the operational management of the electricity system.

In pursuance of Directive 2003/54/EC and in line with the Energy Act, in 2008, at its own initiative and by its decisions, the regulator initiated proceedings for the amendment and/or supplement of the issued licenses for the effective unbundling of the activities of operational management of the electricity system and the distribution networks from the other activities of the vertically integrated enterprises, respectively, of the Public Provider and of the end suppliers. The conditions of the licenses of the Transmission System Operator (ESO) and of the distribution companies which are also distribution system operators (DSOs) were supplemented with compliance programs submitted by the respective energy enterprise. The compliance programs contain specific measure to guarantee the independence of the activities of the persons licensed to manage the networks from the other activities of the vertically integrated enterprise.

The activities related to electricity distribution and to the operational management of the distribution networks are also unbundled in separate legal entities. The functional

unbundling of the Distribution System Operator (DSO) in the vertically integrated distribution enterprise on the basis of the compliance program ensures the independence of the DSO.

The distribution enterprises in the territory of the country prepare and submit compliance programs setting out the measures to ensure the independence of the Distribution System Operator. The compliance programs submitted are reviewed by the regulator at its sessions and are either approved or, if necessary, supplemented by instructions to supplement the program in order to guarantee the independence of the operator from the other activities of the vertically integrated enterprise. The programs contain specific obligations for the employees in order to attain the targets and designate the employees responsible for controlling the performance of the programs. The distribution enterprise prepares an annual report on these measures which is submitted to the regulator for approval.

In 2008, the regulator approved the compliance programs of ESO and of the distribution enterprises.

Trading in electricity in Bulgaria is carried out on the basis of the Electricity Trading Rules and the “Auction Rules for the Allocation of Capacities on the Interconnections between the Control Area of Electricity System Operator EAD - «ESO» EAD and its Neighboring Control Areas for the Year of 2008” (Auction Rules) developed and updated in 2008. The same have been harmonized by the State Energy and Water Regulatory Commission and are applied by the Electricity System Operator (ESO).

The Electricity System Operator prepares, maintains and publishes on its web site general and specialized information concerning the activities on the balancing energy market and about the transactions at freely negotiated prices.

The rules ensure transparency and non-discrimination between all participants in the auctions for transfer capacities.

The Auction Rules regulate the types of auctions, the organization of the auction procedure, the requirements to users in order to participate in the auctions for the award of commercial transport rights, etc. The Rules regulate the unbundling and the allocation of annual, monthly and weekly transport capacities on the interconnections.

The Auction Rules regulate all issues relating to the unbundling and allocation in 2008 of the available transport capacity in both directions on the interconnections of the electricity system of Bulgaria with its neighboring electricity systems.

In 2008, organizational and technical activities were carried out for the transition in 2009 to the calculation and allocation of the transport capacities one day ahead both in respect of the domestic market and in respect of the transport capacities on the interconnections.

The country is currently holding talks with its neighboring EU Member States, Greece and Romania, with respect to bringing the effective rules in line with the Regulation on the cross-border exchange of electricity.

Security of supply

In line with the Energy Act, ESO prepares short-term and long-term forecasts and development plans for the electricity system in order to ensure the electricity balance of the country. On the basis of the forecasts and the plans, ESO submits to the Minister of Economy and Energy a draft electricity balance and a list of the sources needed by the country, including new production capacities and interconnection lines.

The total installed capacity in the country is 11 250 MW. The maximum net output capacity is 8069 MW, and the peak load in December 2008 was 7034 MW.

The country is a net exporter of electricity for the region, and in 2008, the share of electricity sold on the regional market amounted to over 12% of the total net output in the country.

At this stage of development of the domestic and regional electricity market, the electricity transmission network of the country is not faced with significant problems related to congestions in the electricity system, including with the cross-border transport capacities. Rare cases of short-term congestions occur in the interconnectors with some of the neighboring countries of the Republic of Bulgaria (with higher loads in the winter season).

2.2. Main developments in the gas market

Wholesale market

In line with the Energy Act, the Rules for provision of access to the gas transmission and/or gas distribution networks and in pursuance of the EU Directive on full liberalization of the natural gas market, since 1.07.2007, all consumers are entitled to choose their own supplier for natural gas, or, in other words, the market is 100% liberalized.

Gas supply in the territory of Bulgaria is carried out over the 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, which transports natural gas through the respective sections to the territories of Greece, Macedonia and Turkey. The activity of public supply is carried out by Bulgargaz EAD. The natural gas on the entry of the gas transmission network is supplied by three external suppliers and one internal supplier.

Wholesale trade in natural gas is carried out by the regulated access of third producer countries. The import of natural gas is carried out on the basis of long-term agreements with Gazprom OAO for internal consumption and for transit over the transit pipelines. The supply of natural gas to the consumers from South Western Bulgaria over the transit gas pipeline to Greece and Macedonia is carried out on the basis of an agreement with Gazexport OOO. Bulgartransgaz EAD owns and manages the transmission and transit gas pipelines at high pressure as well as the underground gas storage of Chiren.

Bulgargaz EAD is the only Public Provider that carries out wholesale trade at prices regulated by the SEWRC, with a market share of 96.98% of the total consumption in 2008, and the remaining 3.02% belong to the only natural gas trader, Dexia Bulgaria EOOD.

The activities of the operator of the gas transmission network, Bulgartransgaz EAD, are separated legally, functionally and financially from the other activities in the vertically integrated enterprise.

The operator of the gas transmission network ensures:

- the single management and reliable functioning of the gas transmission network;
- the transmission of natural gas over the gas transmission network and its reporting;
- the maintenance of the sites and facilities of the gas transmission network in line with the technical requirements and the safety at work requirements;
- the development of the gas transmission network in line with the long-term forecasts and plans for development of the gas supply and outside of them, when it is economically justified;
- the maintenance and the development of the auxiliary networks.

With respect to the activities of the operator of the gas transmission system, as part of a vertically integrated enterprise, effective mechanisms have been set in place to guarantee its independence, while the persons responsible for managing, including the operational management of the gas transmission system:

- may not participate in the management of the other companies of the vertically integrated enterprise, which carry out extraction, distribution, public provision, public

supplies and trade in natural gas;

- take independent decisions in the performance of the tasks entrusted to them;
- are obliged not to allow discriminatory treatment in the performance of their tasks.

In this regard, the operator of the gas transmission network prepares a compliance program, setting out the measures to attain the above targets, containing specific obligations of the employees. The operator of the gas transmission network regularly prepares a report on the measures to attain the specified objectives and the same is provided to the regulator.

Retail market

12.87% of the consumption of natural gas in the country is carried out by 32 gas transmission companies servicing 5 gas distribution regions (Dounav, West, Trakia, Mizia, Dobrudja) and 58 municipalities outside these regions.

In 2008, the SEWRC issued and amended licenses for the activities of “distribution of natural gas” and of “supply with natural gas by an end supplier” to twelve gas distribution companies.

The price of natural gas at the entry of the gas transmission network is formed by the Public Provider, Bulgargaz EAD, as a weighted average value taking into account the quantities of natural gas notified for delivery from imports for the domestic market and from local extraction enterprises for the purposes of sales in a subsequent period, the terms and conditions under the contracts for transit of natural gas to the Bulgarian border and the exchange rate set by the Bulgarian National Bank of the US dollar or any other foreign currency to the Bulgarian lev, in which the natural gas imported in the country is paid. The quarterly periodicity of fluctuation of the price of natural gas is in compliance with the conditions of the commercial contracts under which the Public Provider purchases natural gas for the domestic market.

In 2008, prices for the transmission of natural gas over the gas distribution networks and for the supply thereof were approved by the SEWRC for five gas distribution companies.

For consumers connected to the transmission network the price which they pay for 1000 m³ is equal to the price at the entry of the gas transmission network to which the charge for transmission is added.

The prices for end consumers connected to the gas distribution network are formed by adding to the price of natural gas at the entry of the gas transmission network and the charge for transmission the price for distribution and supply of the specific group or subgroup of consumers.

SEWRC requests information every year about the complaints received in the gas distribution companies. The number of complaints received in the gas distribution companies is insignificant – 3.6%. The complaints in the sector relate to a delayed connection to the gas distribution networks of residential consumers in settlements. Another group of complaints relates to the measuring devices of separate consumers.

In order to stimulate investments for the gas distribution companies, the SEWRC applies the “price cap” method of regulation. As an investment incentive for the gas distribution companies, the rate on equity can serve as an example, approved by the Commission, amounting to 15% at this stage.

An incentive to encourage retail competition is the regular monitoring on the natural gas market carried out by the SEWRC in order to ensure non-discrimination between all participants in the market and between the participants of one and the same category as well as to contribute to efficient competition and proper functioning of the market. In this regard, the SEWRC in the performance of its control powers carried out scheduled inspections of the

energy companies, as well as extraordinary inspections on the occasion of received warnings and complaints. As an illustration of an activity encouraging competition on the market, the fact may be pointed out that the SEWRC approves price ceilings for the sale of natural gas, the gas distribution companies being entitled to sell to end consumers at prices lower than the ones approved.

In line with the Rules on the provision of access to the gas transmission and/or gas distribution networks of 1.07.2007, all consumers may choose their supplier of natural gas.

Infrastructure

The tariff model applied in respect of the transmission company is entry – exit.

The price of natural gas at the entry of the gas transmission network is formed by the Public Provider as a weighted average value taking into account the quantities of natural gas notified for delivery from imports for the domestic market and from local extraction enterprises for the purposes of sales in a subsequent period, the terms and conditions under the contracts for transit of natural gas to the Bulgarian border and the exchange rate set by the Bulgarian National Bank of the US dollar or any other foreign currency to the Bulgarian lev, in which the natural gas imported in the country is paid. To the price thus formed, a margin of 3% is added.

In line with the now effective contracts of Bulgargaz EAD with external suppliers, the entry price is changed every quarter, i.e. four times per year.

The prices for end consumers connected to the gas distribution network are formed by adding to the price of natural gas at the entry of the gas transmission network and the charge for transit (19.73 BGN/1000 m³) the price for distribution and supply of the specific group or subgroup of consumers.

For the improvement and development of the gas distribution networks, 68.294 million BGN have been invested, a total of 485.026 km of distribution pipelines having been constructed.

Regulation/Unbundling

In 2008, the Gas Supply Sector imposed a financial penalty on Rila Gaz AD by reason of the delayed construction of the distribution network and its putting into operation, respectively, the delayed connection of consumers. At the end of 2008, the SEWRC carried out a regulatory audit of Bulgargaz EAD, the company carrying out the activity of public supply of natural gas. A regulatory audit of Bulgartransgaz EAD, the operator of the transmission network, is currently in progress.

In relation to the amendments of the Energy Act and the Ordinance on licensing of the activities in the energy sector after the accession of the Republic of Bulgaria to the European Union, the SEWRC approved an independence program of Bulgartransgaz EAD. The requirement for independence of the operators has been fulfilled, as the persons responsible for the management, including the operational management, may not participate in the management of the other companies of the vertically integrated enterprise. In pursuance of the requirements of the Energy Act, the regulations and directives of the European Commission ensuring equal treatment and non-discrimination, Bulgartransgaz EAD is expected to provide to the users of the services of transmission and storage of natural gas the necessary public information. Through the measures envisaged, the objectives of fairness and competitiveness are attained, as well as new jobs are created.

Security of supply

In order to improve security and quality of the gas supply in the country, in 2008, a number of investments were made in the gas transmission network and facilities. 80 km of transmission pipelines are in a process of development between Dobrich – Silistra. The process of reconstruction to expand the working volume of the underground gas storage Chiren was started and its connection with Kozloduy and Oryahovo is forthcoming. A number of measures were taken aiming to connect the gas transmission systems of Bulgaria with Romania and of Bulgaria with Greece. The gas extraction site Galata is expected to be transformed into the second gas storage in the country.

The licensee Bulgartransgaz EAD in its capacity as operator of the transmission system carries out dispatching and operational control of the transmission and transit of natural gas.

In pursuance of the EU Directive on full liberalization of the natural gas market and in line with the Energy Act, the natural gas market in the country is open for all consumers since 1 July 2007.

2.3. General conclusions

The now effective Energy Act and the respective normative framework are in compliance with the provisions and requirements of Directive 2003/55/EC. The prevailing part of the requirements of the Directive and the Act concerning the unbundling of the activities of the Public Provider, the transmission enterprise and those of the Electricity System Operator (ESO) within the vertically integrated enterprise have been fulfilled. Adequate measures and decisions in this respect have been applied by the SEWRC also in respect of the unbundling of the activities of the operators of the distribution systems from those of the respective distribution enterprises.

With the indicated amendments and supplements to the effective Energy Act related to Regulation 1228/2003/EC as well as with the application of the measures from the third energy package, the unbundling of the activities of transmission and supply with electricity on the Bulgarian electricity market will obtain the necessary legal basis. The latter is also a prerequisite and a basis for the construction of a power exchange in the country.

In the natural gas sector, the activities of public supply and transmission of natural gas are carried out by two licensed state-owned companies – Bulgargaz EAD and Bulgartransgaz EAD. The approved independence program of the combined operator, part of a vertically integrated enterprise, is in pursuance of the requirements of the EU legislation. The import of natural gas is carried out on the basis of long-term agreements with Gazprom OAO for domestic consumption and for transit.

In performing its powers, the SEWRC is guided by the principle of balancing between the interests of energy enterprises and consumers and creates a competitive environment and equal treatment for access to the service of gas supply.

In 2008, the SEWRC enhanced monitoring and control on the licensed companies in the sector in order to improve the capacity of the gas distribution networks, to encourage investments in the improvement of the gas infrastructure and the right of access to the service under transparent procedures and rules.

3. Regulation and Performance of the Electricity Market

3.1. Regulatory Issues

3.1.1. Management and Allocation of interconnection capacity and mechanisms to deal with congestion

At this stage of development of the internal and regional electricity markets, the transmission network of the country has no problems related to congestions in the electricity system. Certain short periods of congestion occur on the interconnections with certain neighboring countries of the Republic of Bulgaria, mainly during peak loads in the winter period.

The cross-border exchange of electricity of the Republic of Bulgaria is carried out on the basis of developed and updated in 2008 “Auction Rules for the Allocation of Capacities on the Interconnections between the Control Area of Electricity System Operator EAD and its Neighboring Control Areas for the Year of 2008” (Auction Rules). The same are approved by the State Energy and Water Regulatory Commission and are applied by Electricity System Operator (ESO).

The Auction Rules regulate the type of auctions, the organization of the tender procedure, the requirements which users have to fulfill in order to participate in the auctions for granting commercial transfer rights, etc. The Rules regulate the allocation of annual, monthly and weekly transfer capacities on interconnections.

The Auction Rules also regulate all issues related to the allocation in 2008 of available transfer capacities in both directions on the interconnections of the electricity system of the Republic of Bulgaria with its neighboring electricity systems.

The cross-border transfer capacity on the interconnection is allocated by the Auction Operator in the form of commercial transfer rights. The Auction Operator calculates and allocates the transfer capacities according to the norms and rules of the European Network of Transmission System Operators – Electricity (ENTSO-E).

The interconnections of the Republic of Bulgaria with its neighboring countries – Greece, Romania, Serbia, Macedonia and Turkey – ensure the necessary conditions for the realization of electricity market under bilateral contracts as well as mutual help in case of emergencies.

For the allocation of the capacities on the Bulgarian interconnections for the region of South East Europe, a monthly allocation model is prepared. Every month, the net transfer capacities (NTC) are calculated, including for certain periods within the month. These capacities are harmonized bilaterally with the neighboring system operators on the basis of bilateral contracts. For the harmonized NTC, public auctions are announced for transfer capacities.

Electricity System Operator (ESO) prepares, keeps and publishes on its website general and specialized information on its activities on the balancing energy market and on the transactions at freely negotiated process.

The rules ensure transparency and non-discrimination of all participants in the auctions for transfer capacities.

In 2008, organizational – technical activities were carried out for the transition in 2009 to the allocation of transfer capacities one day ahead both on the domestic market and in respect of the transfer capacities on the interconnections.

The country is in a process of talks with the neighboring EU Member States Greece and Romania concerning the bringing the effective rules into line with the Regulation on cross-border exchange of electricity.

In 2008, for the purposes of the subsequent stage of the opening of the electricity market, within the electricity distribution companies, organizational and technical preparation was undertaken for the drawing up by the DSO of a register of the users, as well as for the organized access to a data base of the measured quantities of MV electricity.

3.1.2. The regulation of the tasks of transmission and distribution companies

Network Tariffs

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

In the regulation of the network tariffs for the electricity distribution companies and end suppliers, 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 created by the change in the structure of consumption. In addition, indicators are applied to the methods, reflecting the quality of performance of the activity (the quality of electricity, the quality of service), in accordance with which the recognized revenue requirements of the energy utility are adjusted in view of the performance of the target indicators specified by the Commission. 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 variation.

The regulation of the network tariffs for transmission of electricity over the electricity distribution networks takes into account the specific conditions taken as a commitment in the contracts for privatization of the electricity distribution networks.

The tariffs for transmission and distribution of electricity to the final consumers are approved by the Commission upon the proposal of the companies within the time limits and format specified in the Ordinance on the regulation of prices of electric power and the Instructions adopted thereto. The separate groups of consumers and tariff structures are specified upon the proposal of the companies and the same are grouped in accordance with the voltage level and by zones in the 24-hour period.

In 2008, the electricity distribution companies and end suppliers were subject to a regulatory review and the revenue requirements and tariffs for the second regulatory period were established. The second regulatory period was determined to be 5 years long, the first rate year being 2008. When forming the tariffs for transmission of electricity over the electricity distribution networks, in the regulatory asset base, the annual average nominal amount of investments for the entire regulatory period is included. The weighted average cost of capital (WACC) set by the Commission is 12% prior to taxation.

During the regulatory review carried out by the Commission in 2008 for the activities of distribution of electricity and end supply, the results achieved by the companies in the first three years following privatization were analyzed and taken into consideration. In the assessment of the annual revenue requirements of the companies, the Commission also took into account the previously determined parameters in the adopted Instructions for formation of the prices for the second regulatory period.

The structure of the total revenues of the electricity distribution and electricity supply companies includes a variable part related to costs at approved regulated prices for the chain

of generation, transmission and supply, i.e. the costs of purchasing energy to cover technological losses of transmission and supply to consumers. The structure of the total revenues also includes a fixed part which is not directly related to the quantities of electricity.

In the analysis of the reported results for 2008 of the newly established unbundled companies for transmission of electricity over the electricity distribution networks and final supply of electricity to consumers (which, in 2007, were unbundled legally, organizationally and financially in pursuance of the requirements of Directive 2003/54/EC), it was established that the fixed costs of the companies had no symmetrical relation to the approved elements in the prices for transmission and supply with those reported at the end of the first regulatory period. By reason of this, the regulator adopted as a starting point the effective total level of the annual revenue requirements not related to the purchase of energy and the approved total level of the same revenues in the previous regulatory period for the activities of distribution and supply. For the application of a general approach in approving the prices for the second regulatory period, the Commission took into account the conclusions of the analysis of the achieved results of the regulated companies and the objective of the applied regulation method – creating conditions under which the companies reduce their operating expenses and at the same time ensuring the necessary investments in order to improve the quality of service.

In the regulation of the network tariff for transmission over the transmission network, the Commission applies non-incentive based “rate of return” regulation method, under which all price components are assessed annually when approving the new tariff. By reason of the fact that there is only one regulated company for transmission of electricity over the HV networks, there is no comparable basis on which costs may be compared and assessed. In this regard, SEWRC uses as criteria for the assessment the annual level of costs on the basis of the annually collected information taking into consideration the specific circumstances in respect of the legal requirements for security and technical availability of supply.

In line with the provisions of the Energy Act, the target values (norms) of the electricity quality indicators and the quality of commercial services are defined in the Methodology for assessing the performance of the target indicators for quality of electricity and quality of service of the distribution companies and end suppliers (Methodology). The Methodology has been adopted by the regulator and covers the period 2006 – 2010. It regulates the specific values of the indicators, the period for attainment of the target values, the requirements and method of collection, storage and provision of information by each licensee.

The indicators for non-interruption of supply are the System Average Interruption Duration Index – SAIDI and the System Annual Interruption Frequency Index – SAIFI.

When detereaction and reporting the indices for non-interruption, the periods of interruption longer than 3 minutes are taken into account, which fall into:

- scheduled interruptions (determined in minutes per year), for which the consumers are previously informed by the companies;
- non-scheduled interruptions, which are due to stable or incidental failures of the facilities, incorrect manipulations, etc., for which it is not possible to notify previously consumers.

Interruptions due to third parties and force majeure (unforeseen or inevitable event of an extraordinary nature) are excluded.

The average reported values of the four electricity distribution companies in the country according to the SAIFI and SAIDI indices in the case of scheduled and non-scheduled interruptions in 2008 are as follows:

Indices	Types	Reported values 2008
SAIFI	Scheduled, number	5,25
	Non-scheduled, number	5,63
SAIDI	Scheduled, number	299,5
	Non-scheduled, number	288,5

The indicators for quality of commercial services defined in the Methodology are directly linked to the results and relations between the electricity distribution, electricity supply companies and the consumers.

As an indicator of the quality 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 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.

Balancing

In line with the Energy Act, transactions with electricity may be concluded at freely negotiated prices between the market players (producers, traders in electricity and consumers) or at regulated prices.

The Electricity Trading Rules adopted by the regulator determine the conditions for participation in the work of the electricity market, the balancing energy market, the balancing mechanisms of the market players and the methodology for determining the prices of balancing energy.

With amendments in the Energy Act of 1 July 2007, a number of provisions were repealed and new requirements for the electricity sector were introduced, changing significantly the regulatory framework and the obligations of the parties when concluding transactions at freely negotiated prices and at regulated prices. At the beginning of 2008, in accordance with the amendments in the Act, the regulator changed by its decision the mechanisms laid down in the Electricity Trading Rules. The amendments relate to the formation of the prices of balancing energy, which did not take into account the changed price framework and the new conditions under which the Public Provider carries out purchases and sales of balancing energy.

With the amendments and supplements to the Electricity Trading Rules in 2008, clear and transparent regulation of a number of basic issues relating to electricity trading was achieved.

The priorities in the performance of the obligations of the electricity market players are clearly formulated. New supplements are introduced in the procedure for notification, validation and registration of the schedules for delivery of electricity. The possibility for withdrawal from the electricity market has been regulated. The mechanism for calculation of the price of balancing energy has been changed.

In 2008, the regulator adopted additional measures for amendment and supplement of the Electricity Trading Rules, regulating the activities on the electricity market, which amendments provide the possibility for the further opening of the electricity market. The proposed amendments in the effective rules are related to the transition to the notification of the Transmission System Operator (TSO) of schedules on a daily basis: day-ahead notifications, which provides a possibility for:

- more flexible and dynamic forecasting of the electricity needs of the market players with registered physical sites;
- reduction of non-balances in case of unforeseen failures of the production facilities;
- creation of additional incentives for participation in the market, a prerequisite for a reduction of the end price of electricity.

Simultaneously with the developed changes in the normative framework, in 2008, TSO also prepared the technical conditions for realization of the daily exchange of data with the trading participants – change and availability of the procedures for notification, validation and registration of the schedules for delivery from a weekly to a daily basis. This was the subsequent imperative step in the stepwise development of the market, for which the prerequisites have already been created for its successful implementation. The conditions for negotiation of the delivery of electricity one day ahead are a step to a better functioning electricity market.

In 2008, the average reported price of balancing energy in the country in case of deficit was 70.87 EUR/ MWh , and the average price of balancing energy in the case of surplus was 19.36 EUR/ MWh. With the transition in 2009 to notifying and registering the schedules one day ahead the difference between the prices of balancing energy in case of deficit and surplus is expected to significantly lower.

Currently, the Public Provider – National Electric Company EAD – is the supplier of electricity at the balancing market. At this stage, the independent producers are not sufficiently economically interested in participating in the electricity market. By future amendments in the regulatory framework, it is envisaged that in 2010 independent producers of electricity will be attracted in addition to participate in the balancing market.

3.1.3. Effective unbundling

The legal, organizational and financial and accounting unbundling of the Transmission System Operator (TSO) and of the Distribution System Operators (DSOs) within the vertically integrated enterprises, respectively, the Public Provider and the public suppliers was realized in 2008.

In pursuance of Directive 2003/54/EC and in line with the Energy Act, in 2008, upon its own initiative and by its decisions, the regulator initiated proceedings for the amendment and/or supplement of the issued licenses for the effective unbundling of the activities related to the operational management of the electricity system and the distribution networks from

the other activities of the vertically integrated enterprises, respectively, of the Public Provider and of the public suppliers. The license terms of Transmission System Operator (TSO) and Distribution System Operators – DSO are supplemented by compliance programmes, provided by the respective energy company. Compliance programmes contain specific measures, guaranteeing the independence of licensees' network management operations from other activities of the vertically integrated enterprise.

Under the Energy Act, the Electricity System Operator (ESO) is part of the vertically integrated enterprise of the Public Provider. However, under the law and the licensing terms its operation is independent, in legal and organisational form, in finance and accounting aspect and in decision making in functions, assigned by law, from the other operations of the vertically integrated enterprise.

The legal, organisational and financial unbundling of ESO from the Public Provider is implemented.

In addition, ESO prepares a compliance programme, subject to review and approval by the regulator, which present specific actions fulfilling the licensing terms and the above requirements. The programme includes specific obligations of employees. ESO prepares an annual year-end report on fulfilling the measures for objectives, set out in the programme, which is then sent to the regulator for approval.

The implementation of the compliance programme ensures the independence of ESO, of persons responsible for the management, including operative management of the energy system.

Activities relating to electricity supply and operative management of transmission networks by the Distribution System Operator (DSO) are also split into separate legal entities. The functional unbundling of the DSO operator in a vertically integrated enterprise based on the compliance programme ensures DSO independence.

In view of the above, the four distribution enterprises on the territory of the country prepare and submit compliance programmes, specifying measures ensuring the independence of the distribution system operator. These compliance programmes are reviewed at meetings of the regulator, and approved, or, if needed, the regulator sets guidelines for amendment of the programme, in order to guarantee the independence of the operator from other operations in the vertically integrated enterprise. Compliance programmes contain specific responsibilities of employees, in order to achieve the targets, and assign employees, responsible for programmes' follow-up. The Distribution operator prepares a year-end report on these measures, to be approved by the regulator.

In 2008, the regulator approved the compliance programmes of ESO and distribution enterprises.

3.2. Competition Issues

3.2.1. Description of the wholesale market

The total electricity output potential of the country, based on primary energy sources and electricity output in 2008, is structured as follows:

- Producers with primary energy source of fossil fuels – 53,9%¹;
- Producers with primary energy source of nuclear fuel – 39,6%²;
- RES (without pumped-storage electricity) – 6,5%;

¹ 56.9% - most recent data;

² 36.6% - most recent data.

During the reported period – 2008, the total number of licensed producers with installed capacity over 5 MW was 45. The total installed capacity in the country was 11 250 MW. The maximum net output capacity was 8069 MW, and the peak load in December 2008 amounted to 7034 MW. The yearly net output in the country for the reporting period was 39,64 TWh. Out of free market sales of 15,5 TWh – domestic market and net export, the share of open electricity market for 2008 was 39%.

Net commercial exports for 2008 amounted to 5,4 TWh.

In 2008 29% of domestic consumption was traded on the wholesale market at freely negotiated prices. With annual domestic consumption of electricity of 34,64 TWh in 2008, the share of traded quantity on the domestic market amounted to 10,1 TWh. 7,33 TWh of this quantity was traded among 20 active electricity traders, seven large producer on the market, and 63 large and medium economic consumers of high and medium voltage. The remaining quantity was sold by the Public Provider, in the capacity of licensed trader to large economic consumers, connected to high voltage networks on the basis of bilateral contracts concluded at freely negotiated prices.

In line with Directive 2003/54/EC of the European Parliament and the Energy Act, the electricity market in the Republic of Bulgaria is fully liberalized as of 01.07.2007. Cross-border transfer capacity of interconnections is allocated by the Auction Operator in the form of commercial rights for transfer. The Auction Operator calculates and allocates the transfer capacities in line with the norms and rules of the European Network of Transmission System Operators for Electricity (ENTSO-E).

The electricity market in the country operates by a model where part of the transactions for electricity sale are concluded at regulated prices, approved by the regulator, and the remaining part is traded on the liberalized market at freely negotiated prices, between the parties on the market. Under the Energy Act, parties to transactions on the liberalized market of electricity are producers, traders in electricity and consumers.

Certain share of the quantity of electricity output by individual (mainly large) producers, under the Energy Act, is sold to the Public Provider for protected consumers at regulated prices. The quantity of electricity purchased at regulated prices from producers, within a regulator-defined ‘quota’ for each producer, is determined on the basis of the principles of equality and transparency. With this model, the regulated price for protected consumers is calculated as a mix of prices of electricity producers from various primary energy sources (nuclear, coal, water). Producers may, under the law, sell the rest of electricity output on the liberalized market as equal participants.

2008 continued the effect and implementation of two long-term contracts signed between the Public Provider NEC EAD and electricity output companies TPP Maritsa Iztok 2 EAD and the privatized Energy Company Maritsa Iztok III. Contracts with these power stations include modernization in order to promote output efficiency and fulfillment of contemporary environmental protection requirements. The implementation of the contract between NEK and AES 3C Maritsa Iztok I for construction of a contemporary capacity on local coal.

For producers using renewable energy sources, the regulator annually defines preferential prices for their electricity output. The Public Provider and the public suppliers are required to purchase the electricity output of these producers at the respective preferential prices.

At this stage, in line with the Energy Act, electricity trade in the country is based on bilateral contracts between participants – producers, traders in electricity and consumers.

Electricity System Operator (ESO) performs the operational management and regulates the distribution of electricity loads of the electricity system, by accounting for

accepted and confirmed requests for transfer capacities of traders, based on the Electricity Trade Rules and Auction Rules.

Simultaneously, ESO balances the energy system using technical and economic criteria, considering the proposals and requests for the balancing market.

The effective cold reserve and additional services market is regulated by the Energy Act. Cold reserve and additional services transactions are concluded by ESO under the terms of Electricity System Management Rules and Electricity Trade Rules. Quantities of purchased availability for cold reserve are determined on the basis of the necessary level of reliability of electricity supply, decided by Ordinance of the Minister of Economy and Energy. Under the provisions of the Electricity Trade Rules, producers and operator sign contracts for cold reserve and additional services at a regulated price of availability. Net energy from activated cold reserve and provision of additional services is paid by the Public Provider NEK EAD at a price, agreed by a contract between NEK EAD and the respective producer.

In 2008, the regulator licensed 13 new companies for ‘trade in electricity’, which increased the total number of licensed traders to 56. The number of active traders on the electricity market in 2008 was 20.

To facilitate consumers in their choice of a supplier, the regulator maintains a list of all licensed electricity traders and their addresses on its website.

Of the 20 active traders on the domestic market in 2008 there is no marked monopolist. The largest share of purchased/sold electricity by a trader is below 23% of the total traded volume on the market. The share of purchased/sold energy by the three largest volume traders does not exceed 52% of the total traded volume.

At present the country does not have an organized electricity exchange and trade is done based on bilateral contracts at freely negotiated prices on a market, organized by ESO. Therefore, an objective sell/buy price margin for electricity cannot be determined.

As the annual net output in 2008 amounts to 39,64 TWh., sales on the free market are 15,5 TWh – total of domestic market and net export. The annual domestic consumption of electricity was 34,88 TWh in 2008, that is, the share of traded volume on the domestic market is 10,1 TWh.

The electricity market in the Republic of Bulgaria is national and well integrated with the neighbouring countries.

Total installed capacity of wind energy in 2008 was 112,6 MW. In the next two or three years it is expected to reach 317 MW, and by 2015 – 1350 MW.

By tradition, Bulgaria is a net electricity exporter for the countries of the South East Europe region. In 2008, the share of net exports of the country exceeded 12% of the net electricity output of the country. This results from realized electricity output from well-structured and optimized mix of primary energy sources – nuclear energy (over 36%), local and partly imported coal energy (57%), water energy (over 6,5%), etc. Therefore, during most of the year and particularly with increased consumption of electricity in the region (in winter and partly in summer) electricity prices in most neighbouring countries rise substantially. Essentially the deficit of available capacities in neighbouring countries in some periods of the year causes the periodic significant differences between average market prices in the country and in neighbouring countries.

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. Generally, the impact of congestion on interconnections on differences in market prices in the country and in the neighbours is negligible.

Under the Energy Act the regulator has powers to control issues relating to possible denial of access to networks by the electricity system operator or the distribution system operator.

All disputes relating to the implementation of the provisions of Electricity Trade Rules, are referred to resolution to the regulator under the procedure of the Energy Act.

In the event of denial of registration by the operator, the trader has the right to dispute the denial in writing before the regulator within fourteen days of receipt of denial. The regulator verifies the grounds for denial of registration and announces its decision. If the regulator judges that the operator has denied registration on the electricity market without any justification, the operator within two working days of receipt of the regulator's decision send to the applicant a notification of accepting the registration application.

Rules on trade with neighbouring countries are in compliance with the effective European rules and bilateral agreements and rule for cross-border exchange and trade in electricity. The latter refers inclusively to the coordination of interconnection transfer capacities between the Bulgarian TSO and neighbouring transmission systems.

In 2008, the electricity sector in the country and the participants on the electricity market did not register any significant mergers and acquisitions, influencing market competition. During 2008 grew the number of electricity traders, including those active on the market.

3.2.2. Description of the retail market

Transition from trading at regulated prices to freely negotiated prices and vice versa is performed under the terms and conditions of the Electricity Trade Rules.

The licenses for public electricity supply by end-supplier provide that the end-supplier must supply electricity at regulated prices to household consumers and enterprises with less than 50 employees, and annual turnover below BGN 19,5 million which have not selected another supplier or have left the electricity market. Also, the end-supplier must ensure uninterrupted electricity supply to consumers for a transitional period, if their electricity supplier at freely negotiated price terminates supply, until the consumer finds another supplier.

At this stage of development of the electricity market, trade covers entirely the large consumers of high voltage (HV) and part of the business consumers connected to medium voltage networks (MV). Trade is carried out on the basis of bilateral contracts between producers, traders in electricity and consumers. Operations of traders in electricity presently do not cover retail markets for small business consumers and household consumers. Amendments in legislative framework are envisaged, aimed at expansion of the electricity market in the sector of medium and small business consumers.

The quantity of electricity, transmitted to consumers who switched their electricity supplier, connected to high voltage system in 2008 was 4 400 955 MWh.

The amount of electricity, transmitted to consumers (HV) who switched their electricity supplier, connected to medium voltage systems (MV) in 2008 was 178 790 MWh.

In the reporting period, business participants who concluded transactions at freely negotiated prices were 84, of which 7 producers, 57 consumers and 20 traders.

6 participants left the market in this period, of which 5 consumers and one trader.

The annual consumption of electricity in 2008 was 34,64 TWh, and the share of traded quantity on the domestic market was 10,1 TWh. This quantity was traded between producers, traders in electricity and large and medium business consumers, based on bilateral contracts signed at freely negotiated prices.

Presently, operations of traders in electricity do not cover retail markets for small companies and household consumers. Amendments of legislative framework are envisaged, aiming at expanding the electricity market in the medium and small business consumers sector.

Total consumption of end-users in 2008 was 25,23 TWh.

Total end consumption by protected consumers (household consumers and small businesses) which purchased electricity at regulated prices in 2008 was 17,16 TWh.

The consumption structure and the quantities of electricity by key consumer groups are as follows:

- Economic consumers and public sector – 15,21 TWh – 60,3% of the consumption in the country.
- Household consumers – 10,02 TWh – 39,7% of the total consumption in the country.

In compliance with the ‘Ordinance on regulation of electricity prices’ by a decision of the regulator of 01.07.2008 on protected consumers, the following prices without VAT were established:

1. sell prices of electricity producers for the Public Provider NEK EAD;
2. sell price of the Public Provider for end suppliers;
3. sell prices of the Public Provider for distribution system operators to cover technological costs of transmission through distribution systems;
4. transmission price of electricity through the transmission system;
5. price of access to the electricity transmission system;
6. price of access to the electricity distribution system;
7. price of transmission through the distribution systems;
8. prices of end suppliers for household consumers and small businesses with less than 50 employees and annual turnover below BGN 19,5 million.

The main groups of consumers in 2008 were the same as in 2007, as follows:

- Economic consumers of high voltage – the price for economic consumers connected to the electricity transmission system (high voltage) is not subject of approval by the regulator. These consumers purchase electricity on the free market.

- Economic consumers of medium voltage – the price for these consumers includes: electricity price of end supplier, transmission price through the distribution system and price of access to the electricity distribution system.

- Economic consumers of low voltage – the prices for consumers of low voltage includes: electricity price of end suppliers, transmission price through the distribution system and price of access to the electricity distribution system.

- Household consumers connected at low voltage – the electricity price includes: electricity price of end suppliers, transmission price through the distribution system and price of access to the electricity distribution system.

Prices approved for 2008 are as follows:

The price of access to the electricity transmission system is paid to ESO by all users of the system at 0,00308 EUR/kWh.

The prices of transmission through the transmission system is paid to the Transmission Operator by all users of the system at 0,00464 EUR/kWh.

In 2008 the price of transmission through distribution systems was differentiated into price of transmission through the distribution systems and price of access to the systems.

Medium prices of access, transmission, and supply, paid by end consumers are as follows:

No	Consumer groups	Price of access EUR/kWh	Price of transmission medium voltage EUR/kWh	Price of transmission low voltage EUR/kWh	Price of supply EUR/kWh	Total price EUR/kWh
1.	Economic consumers medium voltage	0,00311	0,00408		0,04757	0,05476
2.	Economic consumers low voltage	0,00311		0,02418	0,05017	0,07746
3.	Household consumers	0,00311		0,02418	0,04131	0,06860

* All prices without VAT (20%) and without excise duty for economic consumers

To achieve efficiency in prevention, avoidance of limitation, or infringement of competition on the energy market and avoiding abuse of monopoly, there is close cooperation between SEWRC and the Competition Protection Commission. In order to exercise its regulatory powers, SEWRC is in close cooperation with the Consumer Protection Commission, and other non-governmental organizations for consumer protection. A major priority of the Commission in 2008 is working with consumers and protecting the quality of service and the right to information.

SEWRC has a consumer hotline for inquiries and signals, where anyone can receive a short response to a problem or clarify the complaint procedure. The number of inquiries for 2008 was about 1800 or approximately 6 per day. To facilitate consumers, SEWRC has published an information brochure with frequently asked questions about energy consumption. The Consumer Protection Commission, other consumer institutions and NGOs have also provided a hotline for inquiries and signals.

Complaints to the Commission, Electricity sectors show the largest share of complaints was about errors in metering and bills calculation - about 38% of all complaints in the sector. The next group of complaints is about the monitored indicator – quality. They mainly refer to low quality of electricity supply – 35% of the total number. In this group of complaints, the most frequent are about interruptions of electricity or about electricity supply which does not meet the quality indicators and sometimes results in material damage.

In order to supervise regulated companies' dealings with household consumers in 2008, they must submit reporting information. Complaints to electricity distribution operators in 2008 were 18 738. Most complaints, especially in the second half of the year, are related to disputing the calculation of interim bills caused by quarterly metering. The smallest number of complaints was registered in relation to the consumers' right to connection – about 3%. A large percent of complaints is about the quality of supply – about 15%. The largest share of complaints is about errors in bills and absence of notifications – about 22%. The medium number of complaints for the sector was 4.23 per 1000 consumers. The companies report about 70% full or partial satisfaction of registered consumer complaints. Satisfied complaints are considered those with subsequent corrective measure and/or sent reply from the electricity provider and the complaint sender did not raise an objection.

In 2008, there were 10 scheduled inspections electricity distribution companies based on complaints and signals by consumers about: refusal to provide or sell electricity, interruption of electricity supply due to unpaid corrective bills, distribution and sale of electricity by unlicensed entities, problems with connecting new consumers, etc. Inspection results are reflected in inspection reports, reviewed by the Commission. In the event of violations, licensers are penalized or binding instructions with time limits were published.

3.2.3. Measures to avoid abuses of dominance

The market operations and organisation are regulated by ‘Electricity Trading Rules’ and ‘Auction Rules for the Allocation of Capacities on the Interconnections between the Control Area of Electricity System Operator EAD - «ESO» EAD (TSO), and its Neighboring Control Areas for the Year of 2008’. These Rules have been harmonized and approved by the national regulator. The rules are in compliances with Directive 2003/54/EC, bilateral agreements and rules for cross-border exchange and trading with electricity.

Electricity System Operator (ESO) is responsible for the operational management and regulation of distribution of electricity loads of the electricity system, accounting for the accepted and confirm applications for transfer capacities of commercial participants, based on the ‘Electricity Trading Rules’ and the Auction Rules. In 2008 applications were accepted and confirmed ‘one week ahead’, while presently ESO is moving to registering of applications ‘one day ahead’.

Cross-border transfer capacity for interconnections is distributed by the Auction Operator in the form of commercial rights for transmission. The Auction Operator calculates and allocates transfer capacity in compliance with the rules of the European Network of Transmission System Operators for Electricity (ENTSO-E).

The needed data and information is published by ESO on its website.

At this stage of opening the electricity market in the country the public/end supplier provide and sell electricity at regulated prices mostly to protected consumers. Supply contracts are signed with consumers on the basis of ‘General terms for electricity supply’, developed and proposed by electricity supply companies, and approved by the regulator.

The key principles underlying the SEWRC activities in fulfilling the regulatory powers of the commission, are prevention and avoidance of limitation or violation of competition on 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 abuse of monopoly and limiting/violating the competition on the energy market in Bulgaria. To that end, SEWRC 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.

The Regulation on licensing energy activities provides for another important power and obligation of a SEWRC in issuing a license and/or a permit or consent. If in the course of administrative proceeding, a need of permit from 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, SEWRC 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,

SEWRC has the right to demand the opinion of CPC on the specific case before making a decision or issue a permit.

Under the Energy Act, energy enterprises managing the electricity system, transmission of electricity or distribution of electricity, which provide a commonly offered service 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.

The amount of sale on the free market in 2008 was 15,5 TWh (domestic market net exports), and the shares of the largest players on the electricity markets were, as follows:

- Producer which sells electricity on the market – 36,3%
- Trader which sold the most electricity on the market – 12,6%
- Consumer which purchased the most electricity on the market – 2,97%.

The data shows absence of a monopoly on the electricity market in the country in 2008.

In 2008, on the electricity market were 7 large producers, 20 active traders and over 63 mostly large and medium economic consumers.

4. Regulation and Performance of the Natural Gas market

4.1. Regulatory issues

4.1.1. Management and allocation of interconnection capacity and mechanisms to deal with congestion

At this stage of market development, there is no system congestion, neither on the nation, nor on cross-border level, since the projected capacity of the transmission system is 8 billion m³. The actual annual consumption does not exceed 50% of the maximum projected consumption. The allocation of available capacities is on the 'first come first served' principle.

Transit transmission is carried out by the System Operator on the basis of long-term contracts. There are old contracts with priority access to cross-border capacities. The ratio of capacity needed to serve old contracts to total cross-border capacity is 100%. These contracts are valid until 2030.

4.1.2. The regulation of the tasks of transmission and distribution companies

The price of transmission on the system is calculated by the method 'Rate of Return' (cost plus).

The tariff model applied on transmission company is entry-exit.

The price of natural gas at the network entry is calculated by the Public Provider as average weighted value taking into account the demanded quantity of natural gas from import to the domestic market and from local extraction enterprise to sell in a future period; the contract terms for transmission of natural gas to the Bulgarian border, and the exchange rate of the Bulgarian National Bank for USD or another foreign currency paying for the imported natural gas. On this price a charge of 3% is calculated.

Under the effective contracts of Bulgargas EAD with external suppliers, the entry price changes every quarter, that is four times per year.

The price for end consumers connected to the gas distribution network is calculated by adding the price for distribution and supply for the specific consumer group or subgroup to the price of natural gas at the entry of gas transmission system and the transmission tax (BGN 19.73).

For consumers linked to the transmission network, the price for 1000 m³ is equal to the entry price of the gas transmission system, to which the transmission tax (BGN 19.73) is added.

The price of natural gas for distribution and supply in gas distribution systems is calculated by the 'price cap' method.

The 'price cap' method involves approval by the Commission of prices set by the gas distribution companies for natural gas transmission through the gas distribution network and for natural gas supply from end supplier for the first year of the defined regulatory period, and change at the end of each year of the regulatory period by an inflation index, reduced by efficiency of improvement rate.

The commission may change approved prices at the end of each year of the regulatory period, and based on shortage or excess revenue, due to difference between projected and actual quantity of natural gas from the preceding pricing period and investments.

With regard of the above, incentive regulation is applied to companies licensed for distribution and supply.

The regulatory period for which prices of gas distribution companies is in accordance with the business plan of the respective company, usually five years.

Regulation through the 'price cap' method is applied since 2008, and pricing corrections have not been applied yet.

An investment stimulus for gas distribution companies can be considered the own capital rate, which is approved by the Commission, and is presently 15%.

The regulator approves Guidelines of the State Energy and Water Regulation Commission for pricing of transmission of natural gas through gas distribution networks and natural gas supply by end supplier and Guidelines for pricing of transmission of natural gas natural gas storage and the form and content of information needed for pricing, which constitute a methodology for setting the respective prices.

The tariff structure is part of the pricing application, where the company may propose 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.

Annual data is collected to report the operations of licensed companies regarding investments, constructed network, number of consumers, consumption; and are compared with data in the approved business plans.

Annual information is collected from all licensees regarding: number of interruptions, durations of interruptions, number of complaints, complaints response time, and time for correction of metering errors.

Transmission and distribution system operators submit updated information regarding effective tariffs for transmission, provision, storage, distribution, supply and connection.

4.1.3 Effective unbundling

A decision of SEWRC allowed transformation of Bulgargaz EAD by unbundling of Bulgargaz EAD and Bulgartransgaz EAD into independent economic entities, thus enforcing the legal, functional, and accounting unbundling of natural gas transmission and public provision of natural gas. The transformation is in compliance with the main provisions of Directive 2003/55 of the EU, namely achieving a domestic market with non-discriminatory access to gas transmission systems and fair pricing of natural gas.

There is horizontal division of the following activities: extraction, import, transmission, storage, distribution, supply and trade with natural gas. Market liberalization requires further extension of options envisaged in the Energy Act for direct contracts between consumers and gas suppliers – traders, gas distribution companies, or direct providers.

Pursuant to Directive 2003/55 of the EC, and after the entry into force of the amended Energy Act in mid- 2007, all gas distribution companies were legally unbundled. In 2008 started the process of issuing new licenses according to the differentiation of activities: ‘natural gas distribution’ and ‘natural gas supply from end supplier’.

Each gas distribution company must apply separate accounting by types of operations within the company, under the provisions of the Energy Act. For the purposes of unbundled accounting in gas distribution companies, the Uniform Chart of Accounts was adopted.

The regulatory mechanism adopted the approach for calculating of expenditures by type of activity – distribution, supply, and unregulated. Subject to regulation by the State Energy and Water Regulation Commission are the distribution and supply with natural gas.

Each activity has special characteristics which allow their accounting unbundling. This allows their monitoring, measurement and control, by the accounting mechanisms for the purpose of regulation. The consolidation of regulated activities allows comprehensive management of the process in line with the national energy policy.

Activities related to natural gas distribution may be unbundled by ownership and organizations from natural gas supply to end consumers from other activities of gas distribution companies, when the gas distribution system connects at least 100 000 end consumers of natural gas.

4.2. Competition Issues

4.2.1 Description of the wholesale market

Under the Energy Act, the Rules for access to gas transmission and/or gas distribution networks, and in compliance with the European Directives for full liberalization of electricity and gas markets, as of 1.07.2007 all consumers have the right to select their supplier of natural gas. The market is 100% liberalized.

Public provision of natural gas is performed by Bulgargaz EAD, which has been licensed by SEWRC for this activity. Bulgartransgaz EAD has been licensed for transmission, transit transfer, and storage of natural gas. The natural gas at the entry of the gas transmission system is provided by three external providers (Overgaz Inc., Wintershall, and Gazexport) and one domestic (Petreko SARL). The gas transmission system is owned by Bulgartransgaz EAD, whose network connects gas distribution companies and about 350 directly connected consumers. Gas supply on the territory of Bulgaria is carried out through a gas transmission network, owned by Bulgartransgaz EAD and through gas distribution networks owned by the respective gas distribution companies. On the territory of the country there is a transit pipeline owned by Bulgartransgaz EAD, which transfers natural gas to the territories of Greece, FYROM and Turkey through certain section.

Local natural gas extraction is minimal – with a market share of 3.46% for 2008. On the territory of Bulgaria, natural gas is extracted in three gas fields, operated by Research and Extraction of Oil and Gas company, and one field, operated by Melrose Resources. Gas is imported by a sole importer – Bulgargaz EAD, which is part of the Bulgarian Energy Holding (BEH EAD). BEH EAD was founded in September 2008 with 100% government share, engaged in generation, production, transmission, transfer, storage, management, distribution, sale and/or purchase of natural gas, electricity, thermal power, coal, and all types of energy and resources for energy production. BEH EAD includes large energy companies such as Bulgartransgaz EAD (functioning as a combined operator in activities such as storage, transfer, and transmission of natural gas) and Bulgargaz EAD, operating as public provider of natural gas.

Wholesale trade in natural gas is carried out by a regulated access of third parties –

producers. Natural gas import is on the basis of long-term contracts with Gazprom for domestic consumption and transfer through transit pipelines. Provision of natural gas for consumers in South Western Bulgaria through the transit pipeline for Greece and FYROM is based on a contract with Gazexport. Bulgartransgaz EAD owns and manages transmission and transit pipelines – high pressure, and the underground gas storage in Chiren.

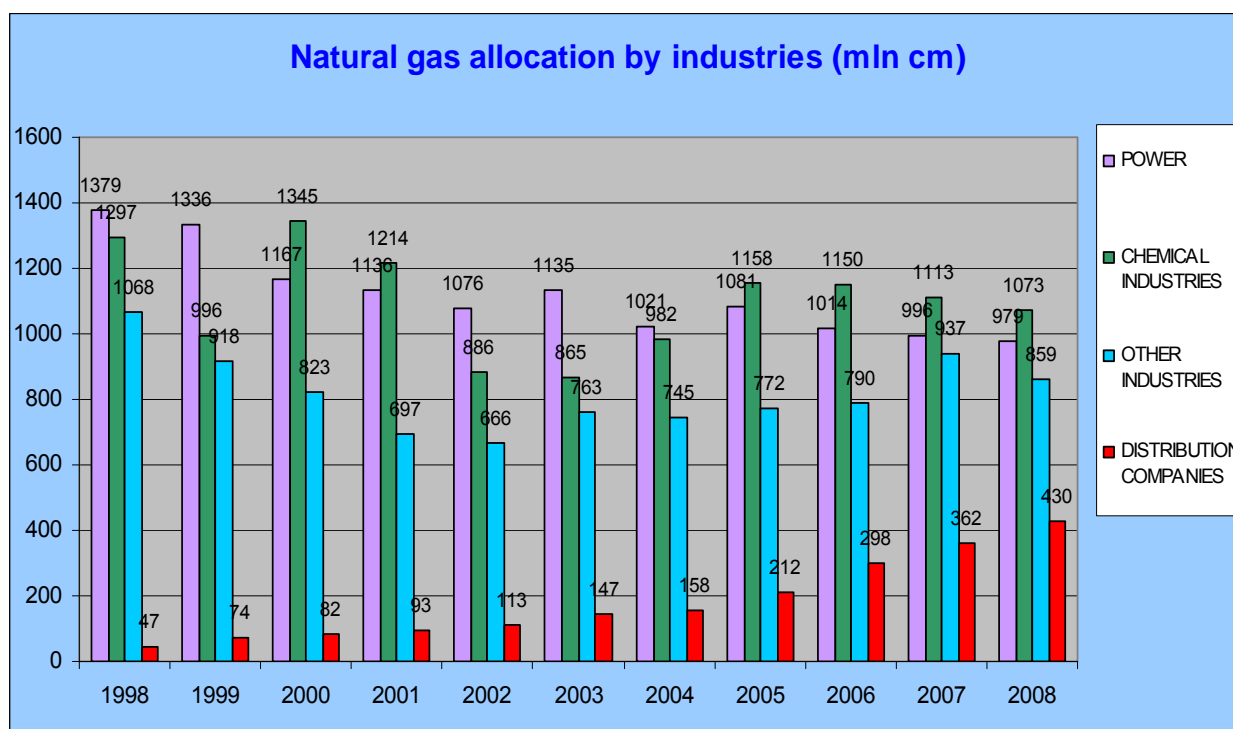
The contribution of *Regional gas initiative* is the future development of projects such as Nabucco, connecting the Caspian region and Middle East with Central and Western Europe, ideas for interconnections with Romania and Greece, and a liquefied natural gas terminal on the Aegean Sea.

Bulgargaz EAD is the sole public provider who trades at prices, regulated by SEWRC, with market share of 96,98% of total consumption for 2008, and the remaining 3,02% goes to the only trader in natural gas – Dexia Bulgaria.

12,87% of the natural gas consumption in the country is done by 32 gas distribution companies, servicing 5 gas distribution regions (Danube, West, Trakia, Mizia and Dobrudzha) and 58 municipalities outside these regions.

The total natural gas consumption was 3 341 million m³. The consumption by industries in 2008 is as follows:

- Power – 979 million m³, or 29,3%
- Chemical industry – 1 073 million m³, or 32,1%
- Other industries – 859 million m³, or 25,7%
- Distribution companies – 430 million m³, or 12,9% of the total consumption.



The volume of active natural gas in the only presently useable underground gas storage area is 590 million m³ (for a six-month period the extraction capacity is 400 million m³), and the volume of buffer gas is 752 million m³. The active gas amount is about 10%-12% of the total annual consumption. There are no declined applications for access to the storage service. Storage capacity was reserved only by the Public Provider Bulgargaz EAD and the natural gas trader Dexia Bulgaria, and in past periods, by large industrial consumers. There are two

methods for allocation of available storage capacities, namely ‘first come first served’ and the proportionate method of allocating requests according to quantities. The second method is in the process of amendment as part of the Natural Gas Trade Rules. There is no trade with storage capacities on the secondary market.

4.2.2 Description of the retail market

The Bulgarian gas market has a national framework. Taking into account Bulgaria’s membership in the ERGEG’s *Regional gas initiative* - South – South East and the future interconnections, it will expand beyond national borders.

In compliance with the current legislation and the established practice in regulating licensed companies, the key principles and approaches were defined for the application of economic regulation, which have a significant influence and provide general guidelines for company development.

The five gas distribution companies with largest market share in sales to end consumers are the following:

- Sofiagaz EAD – 12.33%
- Citygaz Bulgaria AD – 7.9%
- GAZosnabdyavane Stara Zagora AD – 6.9%
- Rahovetsgaz AD – 6.0%
- Montanagaz AD – 4.5%

For gas distribution companies, shares of consumer groups are as follows:

- Industrial consumers – 6,7%, 3 334 consumers;
- Public, administrative and commercial consumers – 3,4%, 1 702 consumers;
- Household consumers – 89,9%, 44 485 consumers.

In compliance with the European directives for full liberalization of electricity and natural gas markets as of 01.07.2007 all consumers have the right to select their natural gas supplier. However, there are no procedures yet for switching the end supplier. This is caused by the fact that each gas distribution company has a price, approved by SEWRC, for transfer of natural gas through the gas distribution networks, owned by the state. In switching the end supplier, the consumer is to pay additional price of transmission of each 1 000 m³ transmitted natural gas to the gas distribution company, whose licensed territory it crosses.

In 2008 SEWRC approved prices for transmission of natural gas through the gas distribution networks, prices of natural gas supply by end supplier, and prices of connecting consumers of five licensed companies, according to the new pricing method ‘Price Cap’. Prices of the other licensed companies are in the process of updating.

Average weighted prices of natural gas for 2008 (without VAT)

Dimension	BGN/1000 m3	BGN/GJ	BGN /KWh	EUR/K Wh	ct/KWh
2008 price for sale by the Public Provider	430.21	12.84	0.046	0.02	2.36
Industrial consumers	439.79	13.13	0.05	0.02	2.42
Public-administrative and commercial	575.42	17.18	0.06	0.03	3.16

Household consumers	641.49	19.15	0.07	0.04	3.53
---------------------	--------	-------	------	------	------

SEWRC conducted scheduled inspections and concluded that companies make considerable efforts to improve the quality of services they offer and the rapid solution of consumers' complaints.

SEWRC demands annual information on complaints received in gas distribution companies. The number of complaints received in gas distribution companies is negligible — 3.6‰ (for each 1000 consumers).

Complaints received in the Commission at Gas Supply Sector are 18, or 1% of the total number of complaints. During the year, four surprise inspections of gas distribution companies were conducted. The inspections drew up statements and made binding instructions with time limits for action.

In 2008 there were 10 inspections in gas supply companies, of which 4 surprise inspections related to consumers' complaints. The main themes of complaints were problems with connection of new consumers. To a large extent this is due to the slow expansion of systems. In some cases there was non-fulfillment of licensing terms. Another group of complaints referred to customers' meters.

Balancing the natural gas market is done by the gas available in the system, purchased at regulated prices from the Public Provider. To compensate the seasonal irregularity of consumption, are used the extraction and injection capacities in Underground Gas Storage of Chiren. The gas is owned by persons other than the operator, and the contract terms are fulfilled.

Balancing the natural gas market in the Republic of Bulgaria is the process of development and harmonization with the European Regulation 1775/2005 on terms of access, and the ERGEG's Guidelines for Good Practices for Gas Balancing. In this respect, the preparation of a draft, amending and Rules on trading in natural gas has begun, including development of a Methodology for calculating the price of natural gas on the balancing market, and Rules on supply of natural gas by end supplier.

4.2.3. Measures to avoid abuse of dominance

At present SEWRC has adopted natural gas trading rules. Administration of transactions with natural gas is carried out by the gas transmission system operator. According to the rules, extraction undertakings, natural gas traders and privileged consumers sign contracts for natural gas supply at freely negotiated prices. Rules govern the balancing of the natural gas market. Parties to the transactions are extraction undertakings, natural gas traders, the Public Provider, public suppliers, end suppliers, and privileged consumers. As of 01.07.2007 all natural gas consumers are privileged to purchase natural gas from a supplier of their choice. At present, there is a working group of SEWRC experts on amending the rules for natural gas trade in compliance with Directive 2003/55 of the EU. The working group will also propose to SEWRC draft rules for natural gas from end supplier. The by-laws mentioned will provide an opportunity to avoid dominance on the natural gas market.

The Energy Act lays down the obligation of the transmission undertaking to connect to a specific point in its network distribution undertakings, extraction undertakings, and natural gas storage undertakings. The Energy Act sets out the obligation of distribution companies to connect and ensure natural gas supply to consumers on equal terms, fulfilling technical requirements for safety and reliability. Terms for connection to transmission and distribution

networks, general terms of contracts, natural gas prices and consumer relations rules are approved by the SEWRC and are publicly available, placed in customer relations centres of companies and on the website of gas transmission and gas distribution companies.

The Energy Act does not require licensing for trading in natural gas, ensuring broad freedom for traders. The natural gas trade market is 100 % liberalised.

SEWRC performs monitoring of the market to ensure non-discrimination of all players on the market, contributing to efficient competition and adequate market functioning for players from the same category. SEWRC performs its supervision powers and conducts inspections of energy companies and surprise inspections after complaints and inquiries.

In order to perform on its regulatory powers, SEWRC is in close cooperation with the Consumer Protection Commission and a number of consumer protection NGOs .

NATURAL GAS COMPLAINTS

Received complaints in the Commission, Gas Supply Sector, are 18, or 1% of total complaints. There were 4 surprise inspections of gas distribution companies during the year. Inspection reports and binding instructions with deadlines were prepared as a result of inspections.

In 2008, in gas supply companies there were 10 inspections, of which 4 surprise inspections related to consumer complaints. The main problem in complaints is the connection of new consumers. This is mostly due to the slow expansion of networks. In some cases complaints concern failure to fulfill obligations under licensing terms.

Gas supply companies did not provide data on complaints frequency.

5. Security of supply

5.1. Electricity

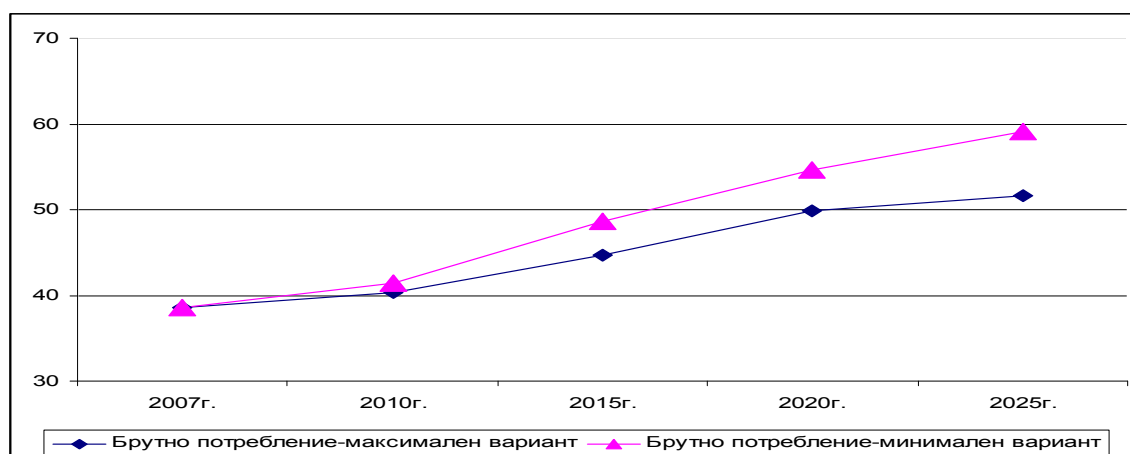
Total installed capacity in the country amounts to 11 250 MW. The maximum net output capacity is 8069 MW, and peak load in December 2008 was 7034 MW.

By tradition the country continues to be a net exporter of electricity in the region. In 2008 the share of electricity sold on the regional market amounted to over 12 % of total net national output.

The forecast for future development of electricity capacities focuses on further guarantee of the system security and electricity supply, including regional aspects, and is based on a draft national electricity strategy.

The graph below shows a forecast of gross national consumption – ‘variant maximum’ and ‘variant minimum’ – for the next 10-15 years. Variants show possible forecast reduction of electricity consumption by about 10%.

Gross national electricity consumption forecast, TWh



New electricity capacities that are currently constructed and planned for operation in the next 10-15 years are mostly based on primary energy sources, nuclear energy, wind and water energy, and partly – local coal.

The construction of the new nuclear power plant NPP Belene is in the process of preparatory construction, with two units with total installed capacity of 2000 MW. The planned schedule for capacity launch is 2015 – 2016.

Total installed capacity of wind energy in 2008 was 112,6 MW, in the next 2-3 years is expected to reach 317 MW, and by 2015 – 1350 MW.

Close to completion (2009 – 2010) is the construction and launch of a new capacity on local coal - 3C Maritza East I, two units with total installed capacity of 670 MW.

The water power plant Tsankov Kamak is also in a late stage of construction, with installed 80 MW, and planned launch in 2010. The construction of the plant is a pilot project under the Kyoto Protocol, based on a Memorandum of Understanding between Bulgaria and Austria. The launch will reduce the gas emissions of CO₂, sulphur oxides and dust. The reduced emissions of CO₂ will be sold to the Republic of Austria.

In 2008 continued the implementation of large-scale rehabilitation of the electricity transmission system of the country, by modernization of transmission and transformation management. Modernisation is financed by loans from EBRD and EIB, and own funds of the transmission company NEK EAD. The beginning of operations is planned for 2010.

At the end of 2008, an interconnection line was completed and powered, substation Chervena Mogila (Bulgaria) – substation Shtip (FYROM), financed by loans from EBRD and own funds of the two neighbouring electricity transmission companies. The line will strengthen the parallel operation of electricity systems in the region and will facilitate the establishment of a more effective regional energy market.

Maximum net output capacity in 2008 was 8105 MW, with peak load of the electricity system in winter – 7034 MW.

The structure and development of the transmission system in the Republic of Bulgaria is in compliance with the current and projected needs of the domestic and regional electricity markets, and meets the requirements and standards for system adequacy and security.

For net electricity output in 2008 of 39.64 TWh, the fuel mix by primary energy sources is the following:

2008	Unit	Net Output	Share (%)
NES	TWh	14,5	36,58
TPS	TWh	18,92	47,73
RES	TWh	2,58	6,51
Cogeneration	TWh	3,64	9,18
Total	TWh	39,64	100

In 2008 there 53 MW new energy capacities were launched from renewable energy sources, mainly wind generators.

In 2008, 11,70 MW new capacities were launched from cogeneration, and construction began of 154,25 MW capacities of combined output. For the period 3,64 TWh electricity from combined output was sold.

For construction of new capacities with installed capacity over 5 MW the regulator reviews projects and issues the respective licenses for construction and operation of the new capacity in compliance with the provisions of the Energy Act and Regulation on licensing the energy operations.

Under the Energy Act ESO prepares short-term and long-term forecasts and plans for the development of electricity system, in order to ensure the national electricity balance. Based on forecasts and plans, ESO provides to the Minister of Economy and Energy a draft electricity balance and list of sources needed, including new production capacities and interconnection wires. It prepares short-term, medium-term and long-term forecasts and plans for expansion and modernization of the transmission network and development of auxiliary network.

ESO develops a new scheme and mechanisms optimising the distribution of income in three main areas:

- ensuring the necessary transmission capacity;
- investments in the transmission network;
- reduction of transmission tariffs.

In 2008 interconnection line 400 kV was completed between substations Chervena Mogila (Bulgaria) and Shtip (FYROM), and powered. The line will strengthen the parallel operation of electricity systems in the region and will facilitate the establishment of a more effective regional energy market.

Four new substations were completed and substations and electricity lines of the transmission system were rehabilitated and renovated, in order to ensure the necessary security of the system, and higher quality of provided services.

In 2008 began a feasibility study for the construction of a new electricity transmission interconnection between the energy complex Maritsa Iztok, Bulgaria and Nea Santa, Greece.

5. 2. Gas

The current level of natural gas consumption is 3.341 billion m³ for 2008. It is expected in 2010 consumption will reach 3.9 billion m³, while the forecast for 2015 is 4.6 billion m³.

The amount of imported natural gas from external suppliers in 2008 was 3.19 billion m³. Quantitative forecast for future supplies is not available.

SEWRC has adopted Indicators for gas supply quality which determine the main requirements and standards for security of supply:

- Indicators and standards of natural gas quality;
- Uninterrupted natural gas supply;
- Quality of commercial service.

The licensee Bulgartransgaz EAD, in its capacity of a system operator, must continually report and analyse all interruptions (planned and unplanned) in the supply of natural gas.

Annually the licensee prepares and submits a report to SEWRC, including detailed information on all interruptions of supply to consumers.

Planned interruptions, with duration longer than the period announced by the Licensee as necessary duration of intervention and/or longer than the announced duration, will be considered unplanned interruptions.

The licensee may interrupt the supply of natural gas in line with the Regulation on limiting regime, temporary interruption or limiting of output or supply of natural gas in the following cases, under the Energy Act:

- a limiting regime for a period longer than 48 hours.
- Temporary interruption or limiting due to planned repairs, new facilities, operational switches or connections, post-emergency repairs.
- Continuity of supply indicators:

System Average Interruption Frequency Index - SAIFI = Total number of interruptions / Total connected consumers

System Average Interruption Duration Index - SAIDI = Total duration of interruptions / Total connected consumers

Customer Average Interruption Frequency Index - CAIFI = Total number of interruptions / Total number of interrupted consumers

Customer Average Interruption Duration Index - CAIDI = Total duration of interruptions / Total number of interruptions or

CAIDI 1 = Total duration of interruptions / Total number of interrupted consumers

The second index is the average time for renewal of supply for an interrupted consumer for a given period of time.

Another important instrument related to security of supply is the quality of commercial services and complaints treatment.

Indices for quality of commercial services

	Performance Index	Index measure	Initial value	Target value
1	Written reply to written complaints and inquiries from consumers	Average number of days to reply to complaints and inquiries from consumers	30 days	10 days
2	Duration of supply interruptions	Average time (per year) for which each consumer's supply was interrupted due to breakdown in the gas distribution system	minutes/ consumer	<1
3	Applications for connection of a new consumer	Average time for reply to applications sent for one year	20 days	10 days
4	Connection of a new consumer	Average time for connection	60 days	30
5	Inspection of accounts at the complaints of consumers	Average number of days for response and finding a solution which satisfies the consumer	days/ consumer	7
6	Correction of measurement errors of meters	Average number of days for response and finding a solution which satisfies the consumer	days	7
7	Inspection of commercial measurement devices at the request of consumers	Average number of days for response and finding a solution which satisfies the consumer	days	15
8	Pressure level	Average time outside the standard pressure range	time outside the standard pressure range	-
9	Natural gas humidity	Average time above the determined humidity level	Time above the determined level	0
10	Natural gas odour	Average odour deviation time	Time below the determined level of	Inspection at every 14 days

The total amount of natural gas, supplied in 2008 was 3.487 billion of m³, of which imported was 3.190 billion m³. The natural gas at the entrance of gas transmission network is provided by three external supplies (Overgas Inc., Wintershall, and Gasexport) and one domestic (Petreko SARL). The quantity of locally produced natural gas was 0.116 billion m³.

In relation to the need of diversification of supplies, and conclusions from the gas crises at the end of 2008 – beginning of 2009, there is development on projects such as Nabucco, connecting the Caspian region and the Middle East with Central and Western Europe, ‘South Stream’, and interconnections started with transmission systems of Romania and Greece. There is a perceived need for the construction of a terminal for liquefied natural gas on the Aegean Sea.

Emergency measures:

- Bulgartransgas EAD is working on draft memorandums of cooperation with Ukrtransgas – Ukraine, and Transgas – Romania;
- The company has signed agreements with DESFA – Greece, and BOTAS – Turkey, for reverse transmission of natural gas in case of interruption of supplies through Ukraine;
- Bulgartransgas EAD, on the basis of the gas crisis of January 2009 has an optimized plan for limiting the supply to consumers in the event of a new interruption of natural gas supplies;
- The capacity of Chiren natural gas storage area will be increased;
- Based on the gas crisis experience, the set of possible switches on the gas transmission system was multiplied, increasing its flexibility;
- Closer cooperation was achieved with gas transmission systems operators from neighbouring countries.

Future investments in output capacity and import capacity for the next three years are, as follows:

- Building an interconnection with the gas transportation system of Romania, with a capacity of up to 1.5 billion m³/ per year.
- Building an interconnection with the gas transportation system of Greece with a capacity of up to 1.0 billion m³/per year.
- Improving the reliability of compressor stations – modernisation of automatic management aggregator systems and compressor workshops in Valchi Dol and Polski Senovets, completing the repairs of the gas turbo compressor aggregate No.3 in Kardam compressor station.

The volume of active natural gas in the only current underground gas storage area is 590 million m³ (for a period of six months the capacity is 400 million m³), and the volume of buffer gas is 752 million m³. The amount of active gas is about 10%-12% of the total annual consumption in the country.

Natural gas import is done on the basis of a long-term contract signed between Bulgargaz EAD and Gazprom, valid until 2012.

The security issue is reflected in the Energy Act. The Energy Act provides that the Minister of Economy and Energy monitors the security of supply and publishes future and

past measures and outcomes of monitoring in the bulletin on the condition and development of energy, published annually, and on the website of the Ministry of Economy and Energy.

The act specifically defines the concept of ‘monitoring the security of supply’ in line with the definition of Directive 2003/55/EC. Under the Additional provisions, ‘monitoring the security of supply’ is the balance between supply and demand of electricity and natural gas on the national market, the level of expected future consumption, and planned additional capacity in the process of planning and building, the quality and maintenance levels of networks, as well as measure for covering peak consumption and overcoming deficit of one or more providers, suppliers, or traders.

The act provides that centralized operational management, coordination and control of the operating regime of the gas transmission system is carried out by the transmission system operator, and the operational management of each distribution system is carried out by the distribution system operator. Orders of the gas transmission system operator are binding for gas distribution system operators, consumers, extraction enterprises and gas storage area operators, connected to the transmission system, and for other companies.

The gas transmission operator is a specialized unit in the structure of the transmission enterprise. The distribution system operators are specialized units in the structure of distribution enterprises.

On the national level, the Directive requirement for operator independence is fulfilled. The transmission gas operator Bulgartransgaz EAD is an independent legal entity with the vertically integrated enterprise Bulgargaz Holding EAD. For gas distribution, Bulgaria has used the legal option of Directive 2003/55/EC for not applying the requirement for legal independence for undertakings serving less than 100 000 consumers.

Strategic gas projects, guaranteeing the security and continuity of gas supply to Bulgaria, South East Europe and EU are in a list of projects which will be central for Bulgaria:

On the national level:

Expansion of gas transmission network in the country, extension of the existing storage and building new gas storage areas;

Faster development of gas distribution networks and household gasification in the country.

On bilateral and multilateral level:

- Implementation of the top priority EU project – Nabucco Pipeline for transport of natural gas from the Caspian region, Middle East and North Africa to South East Europe and EU.

- Building a strategic project – South Stream pipeline from Russia through Black Sea to the Black Sea coast. From Bulgaria two routes are envisaged – ‘south’ and ‘north’, to Italy and Austria respectively;

- Building a gas interconnection between Bulgaria and the pipeline Turkey - Greece;

- Project for building a South East Europe regional regasification liquefied gas terminal on the Bulgarian Black Sea coast, or the Greek Aegean coast, depending on the feasibility study;

- Building a gas pipeline from Bulgaria to Serbia: Doupnitsa – Dimitrovgrad – Nish, or Sofia – Dimitrovgrad – Nish, supplying natural gas to Serbia and other Western Balkans countries;

- Project for the so called Trans Adriatic pipeline from Bulgaria through FYROM and Albania on the bottom of Adriatic Sea to Italy. This project is part of the development of energy infrastructure of European Corridor No.8;

- Project for building an interconnection between the Bulgarian and Romanian gas transmission systems, ensuring security and diversification of supplies.

6. Public Service Issues

6.1. Electricity

Under the Energy Act and other by-laws, energy companies must perform in the interest of the community and individual consumers, by ensuring security of supply, continuity and quality of electricity, effective use of fuels and energy, protection of environment, life, health, and property of individuals. The Minister of Economy and Energy may require from energy companies other standards for public service, related to the continuity of supply of electricity and natural gas and environmental protection. Additional standards are introduced by means of an ordinance, and the extra expenditures of companies are recognized after their confirmation.

Social protection measures, relating to supporting socially disadvantaged persons and families are a priority of the Ministry of Labour and Social Policy, with the active involvement of the Ministry of Economy and Energy.

In the Republic of Bulgaria, pursuant to Regulation No. RD-07-5 of 16.05.2008 on the terms and conditions of paying target benefit for heating', issued by the Minister of Labour and Social Policy, target benefits are paid for heating, regardless of the type of power used for heating.

Right to target benefit is granted to persons and families, whose average monthly income for six months, prior the month of application, is less or equal to a differentiated minimum income for heating, and meet the requirements of the Regulation on applying the Social Benefits Act.

Differentiated minimum income for heating is calculated on the basis of the guaranteed minimum income (GMI) whose monthly amount is determined by a decision of the Council of Ministers. The monthly amount of the target benefit is calculated on the basis of BGN equivalent of 350 KWh electricity, of which 250 KWh daytime and 100 KWh night-time electricity, by an average final sell price of electricity for household consumers at the beginning of heating season.

Under Directive 2003/54/EC of the European Parliament and the Council, European electricity consumers (household consumers and small enterprises) enjoy the right to be supplied with electricity of a specified quality at clearly comparable, reasonable, and transparent prices. This means that consumers may exercise the universal right to be connected to electricity networks and receive electricity at reasonable and non-discriminatory tariffs with an option for price adaptation as a result of indexing mechanisms.

In order to strengthen consumer protection, the Directive recommends precautionary measures to prohibit switch-off or interruption of the network, and the creation of supplier of last resort in the national legislation of member states.

The supplier of last resort may be appointed by representative of the sector, determined by law, administrative decision, or a tender procedure. The purpose of this mechanism is to ensure continuity in the electricity supply, and the respective national competent authorities may monitor the access to electricity and announce the monitoring results to the public.

At present the mechanism of Public supplier of last resort is not laid down and differentiated from other players in the Energy Sector. Its appointment and functioning will be envisaged by the possible amendment of the Energy Act. The idea is that the supplier of last resort will sell electricity at prices, regulated by SEWRC, but determined by the market, as opposed to current pricing, where tariffs are cost-based. The supplier of last resort will purchase energy on the market and will transfer all costs and losses to end consumers, therefore the regulatory commission will have the power to set a maximum price of this

company. The transfer of costs to the end consumer should stimulate customers to seek competition.

In transposing and implementing these provisions from Directive 2003/54/EC, as supplier of last resort may be appointed electricity distribution companies, or the Public Provider NEK EAD.

Under the General terms of contracts for transmitting electricity through electricity transmission networks, electricity distribution companies have the right to interrupt or limit electricity to a consumer at the request of the end supplier, in case of delay or payment or failure of payment of electricity and distribution bills.

The General terms do not provide for limiting the electricity switch-off in winter time.

In 2008 companies have limited electricity switch off of non-paying consumers to a minimum. In such cases companies send the consumer a reminding letter, which repeatedly notifies of the owed amounts on electricity bills and deadlines for payment, although it was already announced in the previous letter.

In May 2008 CEZ Distribution Bulgaria introduced a quarterly schedule of metering electricity. Since the beginning of 2009 the company switches electricity off only at the end of the reporting quarter after an actual measurement.

In addition, the current price regulation for end consumers should be reported, covering the following electricity and natural gas issues:

- The Commission regulates the sell prices from electricity end suppliers to household consumers and enterprises with less than 50 employees and annual turnover of less than EUR 10 million.

- In compliance with Regulation on regulating the electricity prices, when approving the electricity output prices, the Public Provider NEK prices and the tariffs for transmission and access of ESO, the Commission applied the 'rate of return' method. In compliance with the Regulation, in calculating the distribution prices of electricity distribution companies and end suppliers, the Commission applies the 'price cap' regulating method.

Under the Regulation, the Commission regulates prices based on approved necessary income, including projected economically justified costs and return, as well as projected quantities for the respective regulatory period and monitors actual values of necessary income of energy companies and their components. In case of reporting significant difference between the approved and actual costs and/or return, it approves new prices. While performing on these powers, SEWRC has monitored the reported financial results for 2008 of electricity producers, NEK and ESO EAD.

Based on this monitoring, the Commission reported that regarding the above energy companies, there are significant differences between commission-approved costs for the respective regulatory period, and the actual ones. Pursuant to the Regulation, by a decision of the Commission, it requested a new regulatory review. It requested from electricity producers, NEK, and ESO, to send applications for approval of prices and tariffs for electricity output and transmission.

By a decision of 2005, the Commission determined the duration of the first regulatory period of three years for electricity distribution companies and end suppliers. Under an amendment to the Regulation, this period ended on 30.06.2008. Therefore, the Commission performed a regulatory review of companies pursuant to the Regulation. The regulatory review identified the overall financial condition of regulated companies for electricity transmission and supply, and the differences from reported values of pricing components from the approved ones in the effective prices, and reviewed the performance on investment plans.

The results from the regulatory review were reflected by companies in a report, approved by the Commission, which is published on commission's website. After an open

meeting to discuss the applications, there was a closed meeting where the draft decision was adopted, and a public debate was scheduled.

After the debate was held, in the regulatory time limit there were objections from the respective energy companies, which were duly analysed. The final decision approving the prices and network tariffs for the respective regulatory period, was adopted after a detailed analysis of the information available.

During the performance of its regulatory powers, the regulator is led by the following general principles: prevention or avoidance of limiting or distorting competition on the energy market, creating stimuli for the development of a competitive market for energy operations, and last but not least ensuring equality and transparency of procedures regulating the monitoring mechanisms on electricity and natural gas market.

6.2. Gas

Companies operating in the gas sector, must perform their activities in the interest of the community and individual consumers, by ensuring security of supply, continuity and quality of electricity, effective use of fuels and energy, protection of environment, life, health, and property of individuals.

The Energy Act provides that the end supplier sells natural gas at publicly available general terms, which must contain:

- Conditions for quality of supply;
- Information provided by the supplier;
- Time limits of contract;
- Responsibility of the energy enterprise for failure to comply with the general terms.

End supplier consumers sign a contract with the distribution company for transmission through distribution networks of the consumed natural gas at publicly available general terms. General terms must contain:

- Conditions for quality of supply
- Terms for switch-off or interruption of supply;
- Responsibility of the energy company for unregulated interruption or low-quality supply.

The general terms of contracts must be published in one central and one local newspaper.

SEWRC reviews consumer complaints under the Energy Act against licensees and licensee complaints against licensees, relating to the performance of licensed operations. The procedure of submitting complaints, their review and the procedure for voluntary resolution of disputes, are regulated in the Regulation on licensing energy operations. Complaints are reviewed following the Internal Policies for consumer relations for submitted complaints and inquiries for voluntary resolution of disputes relating to:

- Consumer right to be connected to be supplied with natural gas;
- Licensee right to interrupt the connection and supply of natural gas to the consumer;
- Terms of supply and standards of quality, offered by the licensee to the consumers.

A useful introduction of out-of-court institution for voluntary resolution of disputes improves the quality and efficiency of dispute resolutions, avoids expensive court proceedings and ensures faster solution of existing problems.