BULGARIA COUNTRY PROFILE

Overview

Bulgaria has a population of approximately 7.64 million with a GDP of USD 49,900 million.\(^1\) The total primary energy supply in 2007 was 20.23 Mtoe (million tons of oil equivalent) of which 38.1% is coal/peat, 1.2% is hydro power; 3.6% is combustible renewable and waste (including biomass, biogas and waste), 14.6% is natural gas, 23.7% is oil, nuclear is 18.6% and geothermal/solar/wind is 0.2%. Net imports are around 10.57 Mtoe. \(^2\) CO\(_2\) emissions are 50.24 (measured as Mt of CO\(_2\)).\(^3\) As a member of the European Union (EU), Bulgaria is obliged to comply with the EU energy acquis, which includes the improvement of sector competitiveness, security of energy supplies and the protection of the environment.\(^4\)

1. Institutional structure

The Council of Ministers is responsible for developing Bulgaria’s Energy Strategy, upon proposal of the Minister of Economy and Energy, the primary policy-making body. Regulatory implementation is the responsibility of the State Energy and Water Regulatory Commission (SEWRC). SEWRC is an autonomous regulatory agency responsible for electricity, heat, natural gas, water and sewerage. Established in 1999 as an energy regulator, SEWRC gained regulatory authority in the water sector in 2005.

SEWRC consists of 13 board members, including a chairman and two deputy chairmen, one with experience in the energy sector and the other with experience in water supply and sewerage. The large number of board members is the result of the additional responsibility in the water sector; seven members are from the energy side, five from water. SEWRC has about 100 staff members and as such is one of the largest authorities in the region because of the many energy sub-sectors it regulates. The majority of SEWRC staff members are highly-qualified experts – lawyers, engineers and economists. The board members of SEWRC are nominated by the Council of Ministers and appointed by the Prime Minister. They can be dismissed only by decision of the Council of Ministers and resolution of the Prime Minister, and only for cause in accordance with the law. Several members have resigned before the completion of their terms. The normal term is five years, with possibility of one reappointment for another term.

SEWRC has a budget of about EUR 1.9 million. Its budget is part of the central budget, with the amount and the terms of payment approved by the Council of Ministers at the proposal of SEWRC. Budget revenues are raised primarily from fees collected from licensees, and also from fines and sanctions as permitted in the law.

The regulator is responsible for consumer complaint and dispute resolution, licence issuance and revocation or amendment, preparation of drafts of secondary legislation, including tariff methodologies and access rules, monitoring compliance with the conditions and rules of supply of electricity, heat energy and natural gas to consumers, including the standards for quality of service; and fixing tariffs. The Government does not have the authority to overrule or alter decisions of SEWRC.

SEWRC also has power to impose fines on licensees for violations of licence conditions, and may revoke licences as a last resort. It may report technical safety

19 Information for this case Assessment is drawn from the regulator’s 2009 National Report to the European Commission, primary legislation and regulations in the energy sector and CEER and ERGEG materials.
violations to the Ministry of Economy and Energy, and competition violations to
the Competition Authority, with which SEWRC coordinates. SEWRC may
recommend to the Competition authority that it institute proceedings pursuant to the
Law on Protection of Competition. Private sector participation is encouraged, with
clear systems in place to assist potential investors in navigating the policy and
regulatory framework with relative ease. SEWRC’s decisions can be appealed to the
Supreme Administrative Court, and its decisions stay in effect pending appeal.

2. Electricity sector

a. Market framework

The electricity sector is unbundled, with the process having been initiated in 2003
and completed prior to EU accession in 2007. On 1 July 2007, Bulgaria fully
liberalised the energy market in compliance with the Second Gas and Electricity
Directives. Market participants are an independent Transmission System
Operator (TSO), the transmission network owner (different from the TSO), four
electricity distribution companies (which own the distribution network) with
unbundled Distribution System Operators (DSO) according to approved by
SEWRC compliance programmes, traders and producers. There are about 45
electricity producers: those with coal as a primary energy source making up
51.6% of the electricity generated; hydro power producers (7.6%), and
cogeneration fuelled by natural gas (5.7%); the remainder of domestic production
is from nuclear and cogeneration and industrial plants fuelled by coal.

Privatisation of the electricity distribution companies was completed in 2004. In
addition, several big generating plants and many smaller plants have been
privatised, including hydroelectric plants and thermal power plants, such as the
28-year-old Maritza East 3 power plant, majority-owned by Italian energy group
ENEL, which has been renovated and made fully compliant with EU
environmental standards. SEWRC assisted in the privatisation of the electricity
distribution companies and larger generating stations. Relatedly, SEWRC has met
on numerous occasions with potential investors in the energy sector and has
played an important role in assisting investors in understanding the regulatory
climate.

Customers of all categories, including households, can change suppliers and there
are no barriers to switching supplier.

Bulgaria has a wholesale market upon which more than a quarter of the annual
demand is traded at freely negotiated prices. The market is organised by the TSO.
In line with the Energy Law, 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 TSO 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, TSO 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
organised in the country. A cold reserve and ancillary services market is provided
for in the Energy Law, with applicable transactions concluded by the system
operator under rules established by SEWRC. On the retail market, consumers

\[20\] The second Electricity Directive, 2003/54/EC repealed Directive 96/92/EC; the second Gas Directive 2003/55/EC
repealed Directive 98/30/EC.
connected to high voltage networks are supplied by the public provider and traders, as well as by bilateral contracts with producers at freely negotiated prices.

b. Network access and tariffs

SEWRC issues Ordinances (methodologies) for prices in electricity, heat and natural gas. Ordinances set forth the methods of regulating prices and the rules for their formation, approval or modification; submission of information; submission of rate applications; and approval of prices. Access tariffs are approved by SEWRC ex ante. Regulated prices are set by SEWRC for the public supplier, the producer that sells electric power to the public supplier, suppliers that sell to residential customers and small companies, and tariffs for connection and access to networks.

A cost-plus (or rate of return on capital) model is applied. In addition, SEWRC can apply incentive-based regulation, where the regulatory period is from two to five years, and this includes a price cap and revenue cap approach. Upon entry into force of the Ordinance for regulation on electricity prices, the “rate of return on capital” method of regulation is applied to the prices of energy companies, except with respect to producers that qualify for feed-in tariffs, i.e., renewable energy producers. Efficiency incentives are included in tariffs in the form of efficiency improvement factors.

SEWRC has the right to require TSOs and DSOs to modify terms and conditions, tariffs, rules, mechanisms and methodologies to ensure they are proportionate and applied in a non-discriminatory manner. SEWRC monitors the licensed activities, approves tariffs, codes of transmission and distribution system operators, and the methodology for connection of customers.

The electricity price for industrial consumers connected to the high voltage electricity network is not subject to approval by SEWRC, as these customers buy electricity on the competitive market. SEWRC does, however, approve the network transmission tariff. The tariff for access to the network is paid to the system operator by all network users, and is regulated by SEWRC.

Third Party Access is guaranteed by law. SEWRC is responsible for monitoring of fair and non-discriminatory access to the transmission and distribution network as well as for setting forth the rules for access to the electricity transmission and natural gas transmission networks, and to the electricity distribution and natural gas distribution networks. SEWRC controls compliance of the performed licensed activities with the terms of the issued licences regarding Third Party Access to the transmission or distribution networks. In the event that the TSO or DSO refuses access to the network, the operator is required by law to give the reason for such refusal. Such reasons must be sufficient to provide guidance as to how an entity could obtain access going forward and the appropriate measures that must be taken to reinforce the relevant networks.

In 2007 and 2008, Auction Rules defining the conditions for access to the transmission system and for cross-border electricity exchanges were developed by the TSO, after review and agreement by SEWRC.

SEWRC is responsible for licensing of: generation (except for generation of electricity by a plant with total installed capacity of up to 5 MW); transmission; distribution (one licence per region with at least 150,000 consumers); trade; organisation of the electricity market; public supply; supply of electricity by end suppliers (one licence for the territory of a distribution region); management of the electricity system; distribution of electricity to the railway transport
distribution networks. The companies that are licensed for distribution may not be licensed for any other regulated activity. SEWRC has licensed one TSO, four DSOs and about 45 producers with installed capacity above 5 MW. In 2008, the regulator issued licences to 13 new companies for the activity of electricity trading bringing the total number of licensed traders to 56.

c. Operational environment

The Minister of Economy and Energy monitors the security of energy supply. The results of the monitoring and the guidelines of energy policy, as well as security measures taken, are published. SEWRC does not participate in the implementation of measures to cover peak demand (i.e., ensure security of supply). However, it may address the shortfalls of one or more suppliers through the licensing procedure (amendment, withdrawal or termination) and monitoring procedure (monitoring reports). Pursuant to the Energy Law, the Minister identifies the need for construction of new generating capacities on the basis of overall forecast energy balances. The TSO is responsible for preparing the transmission investment plans and the DSO – for preparing the distribution investment plans. SEWRC approves such plans.

As part of its responsibility to regulate supply and distribution of the regulated market, SEWRC is required to approve General Conditions of the contracts for the end-suppliers (of last resort), which sell electricity at regulated prices to household customers and small businesses.

SEWRC has a strong public consultation framework in place. It carries out a public consultation with interested parties when deciding on general administrative acts stipulated by the law (issuances of licence, tariff approvals, and similar proceedings) as well as on other issues of public importance for the development of the energy sector and the sector of water supply and sewerage services. Public consultations are held through open sessions and comments from interested parties, branch and non-governmental organisations are received. Comments to any rule or decisions are taken into consideration and published on SEWRC’s website, www.dker.bg, accompanied by SEWRC’s reasoning.

3. Gas sector

a. Market framework

The market for natural gas supply is fully liberalised, with all customers having been entitled to choose their own supplier for natural gas since 2007.

In 1993, Bulgargaz EAD was established as a 100 % state-owned company. In 2006, Bulgargaz-holding was unbundled and a gas TSO was established. In 2008, Bulgargaz became a part of the Bulgarian Energy Holding company (BE HED), a 100% state-owned company including companies responsible for generation, transmission, transit, distribution, and sale/supply. All these companies are licensed separately and are operationally independent.

Natural gas supply is carried out by Bulgargaz EAD, which is the public provider and supplies natural gas to 40 natural gas distribution networks. Bulgargaz EAD is the only Public Provider that carries out wholesale trade at prices regulated by SEWRC, with a market share of 96.98% of the total consumption in 2008. The remaining 3.02% share is held by the only natural gas trader, Dexia Bulgaria EOOD.
The gas transmission network is owned by Bulgartransgaz EAD, with transmission, transit and storage activities. The transmission network is connected to distribution companies and about 23 directly connected customers.

A “first come-first served” model is used for calculation of the available capacities. There is no functioning balancing (market or system for publishing capacities). Bulgartransgaz is responsible for publishing capacities on its website.

b. Network access and tariffs

In accordance with the Energy Law, SEWRC amended, the “Ordinance for Regulating the Prices of the Natural Gas,” in 2007. This Ordinance sets forth the methods of regulating the prices, setting rules for their formation, approval or modification, the rules for provision of information, for submission of rate applications and for approval of prices. As in the electricity sector, SEWRC is responsible for approval of access tariffs and for ensuring Third Party Access.

Regulated tariffs are set ex post after application of the regulated utilities based on principles set forth in the Ordinance, and cover: the public supplier, end suppliers that sell to households and small business customers and gas storage. The price regulation of gas-distribution companies takes into account the specific conditions for operation of gas-distribution companies in the country, namely, the lack of constructed networks for distribution of natural gas and a small number of connected consumers. SEWRC applies a price cap method of regulation designed to incentivise investment.

SEWRC is responsible for licensing the following activities: transmission, distribution, storage, public supply, transit transmission and supply to end customers. No licensing is required for trading natural gas. Bulgartransgaz EAD has been granted separate licences by SEWRC for the transmission of natural gas through the gas transmission system, natural gas transit transmission and natural gas storage activity. Bulgargaz EAD is licensed for the “public provision of natural gas.” By 2008, SEWRC had issued a total of 18 licences for natural gas distribution and supply operations; seven gas distribution companies also received licences for gas supply as end-supplier (of Last Resort). SEWRC has withdrawn at least four licences for non-compliance with the conditions specified in the issued licences.

c. Operational environment

More than 90% of natural gas in Bulgaria is supplied by the Russian company Gazprom. A small part of Bulgaria’s domestic consumption comes from the Galata field in the Black Sea, which is operated by UK based Melrose Resources. At present, natural gas is transported from Russia through Bulgaria to Turkey, Greece and FYR Macedonia. Strategic projects are underway to secure supply, including expansion of the gas transmission network and building new storage facilitates, and implementation of the gas pipeline Nabucco for gas from the Caspian region, Near East and North Africa.\(^\text{21}\) Construction is currently underway for a gas interconnection line from Bulgaria to the Turkey-Greek pipeline, a trans-Adriatic gas pipeline from Bulgaria via FYR Macedonia and Albania to Italy, along with plans for construction of a degasification terminal on the Bulgarian Black Sea coast.

\(^\text{21}\) The Nabucco project represents a new gas pipeline connecting the Caspian region, Middle East and Egypt via Turkey, Bulgaria, Romania, Hungary with Austria and further on with the Central and Western European gas markets. The first construction phase is targeted for 2011.
4. Renewable energy sources/energy efficiency

The Law on Energy Sector provides the general conditions for efficient use of energy and use of combined heat and power and renewable energy. The Minister for Economy and Energy is responsible for preparing and presenting, for adoption by the Council of Ministers, national long-term and short-term programmes for encouraging the use of renewable energy sources and national indicative objectives for prevention of climate changes, and also for preparing annual implementation reports indicating the level of compliance of undertaken measures with the obligations for prevention of climate changes, as well as measures taken to ensure reliability of the certificates of origin. The Minister is required to prepare an analysis of the national potential for high-efficiency cogeneration and every four years evaluates the progress made toward increasing the share of high-efficiency cogeneration into the gross electricity demand.

A Law on the Renewable and Alternative Sources of Energy and Biofuels entered into force in 2008 and is the primary legislation that addresses renewable energy in Bulgaria. The law promotes energy efficiency, renewable and combined heat and power. A Law on Energy Efficiency was adopted in 2004 and last amended in 2007.

The Law on the Renewable and Alternative Sources of Energy and Biofuels envisages favourable treatment for producers of energy from renewable energy including mandatory connection to the power grid; preferential prices for the purchase of the energy generated from renewable energy and alternative sources of energy (defined as hydrogen, waste products of technological processing and others), and simplified administrative regulation in relation to the construction of renewable energy facilities and the generation of energy from these sources.

Under the Law on the Renewable and Alternative Sources of Energy and Biofuels, SEWRC is empowered to: (1) set forth each year by 31 March preferential prices for selling energy from renewable energy, except for the energy produced by hydroelectric power stations with installed capacity over 10 MW; and (2) issue certificates of origin for energy from renewable energy and set forth applicable rules.

Every investment project for construction, reconstruction and rehabilitation, on the basis of which a building permit is granted, is assessed for its compliance with the energy efficiency requirements. Assessment shall be made under the provisions of the Law on Spatial Planning in compliance with the technical rules for energy consumption of the different types of sites. The technical rules are determined by an ordinance on the energy characteristics of the sites issued by the Minister of Economy and Energy and the Minister of Regional Development and Public Works, as well as with the requirements of the effective regulatory acts and technical specifications for engineering, construction and acceptance of construction sites.

In the current legal framework there is no differentiation in the licensing regime for renewable and other types of generation. The Law on the Renewable and Alternative Sources of Energy and Biofuels enables SEWRC to issue licences for the production of electricity and fuel originated from renewable sources based on the licensing requirement in the Law on Energy and Ordinances on Licensing. SEWRC determines preferential prices for sale of electric power produced from renewable energy and in a combined method by power stations with combined production of electric and heat power. The licensing procedure is clear, non-discriminatory and predictable. Within a period of three months upon application SEWRC must either issue a licence or refuse to issue with full justification on the reasons for refusal. A licence is always issued based on the application; however, in case of established necessity of new generation facilities, a licence is issued through a tendering procedure.
In addition, renewable energy production benefits from rules for priority access to the network and mandatory purchase obligations.

Bulgaria has ratified the Kyoto Protocol to the United Nations Framework Convention on Climate Change and has met and exceeded its Kyoto target of an 8% reduction in carbon dioxide. The legal framework for emission trading is set in the Environmental Protection Act and in a number of regulations, which implement the relevant European Union Directives 2003/87/EC and 2004/101/EC.

5. Conclusion

Bulgaria performs reasonably well overall and with respect to its grouping (Group A), slightly below average for electricity and above average for gas. Within its Group, Bulgaria has an electricity sector score of 0.91 relative to a Group A average score of 0.93 (with 1.0 reflecting full adoption and implementation of best practices as identified in the benchmarks and indicators of this Assessment). Bulgaria has a gas sector score of 0.874 relative to a Group A average of 0.864. The regulatory framework and oversight of retail supply tariffs, market activities and transmission access are well established; the regulatory authority is reasonably independent and meets indicia of autonomy and authority, though the relatively recent inclusion of the water sector under its mandate results in some stress on resources and a more cumbersome management and operational structure. With privatised distribution companies and several generation plants, and more than a quarter of the annual demand traded in a competitive wholesale market (largely through bilateral contracts), Bulgaria’s market is fully liberalised.

The state-owned Bulgargaz EAD controls almost all of the gas supply and its separate (but also state-owned) sister company Bulgartransgaz EAD controls gas transmission, so gas remains largely a monopoly function, which may deter new market entrants. Diversification of gas supply in particular is important for the country’s future security of supply.
Note: The diagram presents the electricity sector results of Bulgaria, in accordance with the benchmarks and indicators identified in the assessment model. The extremity of each axis represents an optimum score of 1.0, that is, full compliance with international best practices. The fuller the “web”, the closer the overall electricity regulatory framework approximates international best practices. The results for Bulgaria are represented by the thick bold line. For comparison purposes, the shaded area presents the electricity sector average of the Group A countries.

Electricity Sector - Comparative view of Group A countries
Gas spider graph – Bulgaria

Note: The diagram presents the gas sector results of Bulgaria, in accordance with the benchmarks and indicators identified in the assessment model. The extremity of each axis represents an optimum score of 1.0, that is, full compliance with international best practices. The fuller the “web”, the closer the overall gas regulatory framework approximates international best practices. The results for Bulgaria are represented by the thick bold line. For comparison purposes, the shaded area presents the gas sector average of the Group A countries.

Gas Sector - Comparative view of Group A countries