

**BRIEF INFORMATION ABOUT THE ELECTRICITY MARKET IN BULGARIA**

In compliance with the obligations of Bulgaria as a member of the European Union and in pursuance of the common European goal for a single European electricity market, measures have been taken in Bulgaria for liberalization of the electricity market in recent years. With the changes made in the legislation, the scope of the free market expanded significantly, reaching a share of 52% and focused entirely on the energy exchange market organized in the country for the purpose of full transparency and equal conditions for all participants in the electricity market in the country. A regulated market segment with a significant share of 48% still operates to supply electricity to all household customers and non-household customers connected to low voltage power distribution networks.

The Bulgarian Independent Energy Exchange (IBEX) is the holder of a license for organizing a power exchange market for electricity, in compliance with the provisions of the Energy Act and the Rules for Electricity Trading. The electricity market organized by the Exchange Operator includes three market segments: Day Ahead market segment, Intraday market segment and Centralized Market for Electricity Purchase and Sale through Bilateral Contracts. Since 2018 the quantities of electricity that the transmission and distribution network operators buy to cover the technological costs of transmission and distribution, the total amount of which for the whole of 2018 is 3096.1 GWh, which have also been traded on the organized energy exchange market.

In the so structured electricity market, the final consumption of electricity in the country in 2018 is 31249.5 GWh.

At present Bulgaria is a net exporter of electricity, and with an export of 10931.2 GWh and import of 3117 GWh for 2018, the annual net trade export from the country amounted to 7813.6 GWh.

In accordance with the requirements laid down in the Clean Energy for All Europeans legislative initiative of the European Commission, a draft Integrated National Energy and Climate Plan, containing a forecast scenario for the development of the power sector in the country by sectors in the period 2021 - 2030 with a horizon up to 2050, has been developed. The forecast foresees that after 2030 the final consumption of electricity in the country will be increasing in the long run by 2050.

With regard to the export of electricity, a projected growth of 59% is expected in 2030 compared to 2017, which continues until 2040, reaching 68% compared to 2017. According to a forecast by the Bulgarian Academy of Science, used in the development of the forecast scenario, after 2025, the regional electricity market will suffer electricity shortages, with annual volumes reaching between 23.5 TWh and 24.8 TWh.

The full liberalization of the electricity market and its integration into the common European energy market must take place in the medium term by phasing out regulated electricity prices.

As an EU Member State, Bulgaria is obliged to make every effort to build a well-functioning single European market. The integration of the national electricity markets of the Member States aims to achieve competitive prices for all Europeans.

At the end of 2018, IBEX took steps to launch and participate in a project of tripartite market coupling of the Day ahead markets of the market zones of the Republic of Bulgaria and the Republic of Serbia and the Republic of Croatia.

A bilateral project for market coupling with the Greek market area is expected to start in the second half of 2019.

Market integration of the Day ahead markets of the market zones of the Republic of North Macedonia and the Republic of Bulgaria is expected to be implemented at the beginning of 2020.

IBEX and ESO have officially launched an initiative to join the project for integration of the intraday market with those of Romania, Hungary, the Czech Republic, Slovenia, Croatia, Austria and Germany.

The coupling of neighbouring markets leads to an increase in the trade exchange of electricity from areas with lower prices to areas with higher prices to the maximum possible quantities at the available cross-border transmission capacities, which in turn leads to price convergence. This creates great opportunities for import and export of electricity and contributes to greater stability of the national electricity systems.

The electrical power system (EPS) of Bulgaria has very well-developed connections with neighbouring countries, which creates conditions for convergence of the regional markets. About 1450 km high-voltage power lines (110 kV and 400 kV) connect the EPS of the country with those of Greece, the Republic of North Macedonia, Romania, Serbia and Turkey. These interconnections provide 1 950 MW of export transmission capacity and 1 590 MW of import transmission capacity, whereas the electrical connectivity relative to the total installed generation capacity in the Bulgarian EPS of 12 000 MW is respectively 16,2% for export and 13,2% for import.

In order to increase the electrical interconnection, in the period 2021 - 2030, the Bulgarian independent transmission operator ESO EAD plans to build two new 400 kV interconnection lines with the EPS of Greece and Serbia together with the operators of these countries. After the implementation of these projects as well as projects for development of our national electricity grid, the transmission capacity for electricity exchange with the EPS of the neighbouring countries will increase and the electrical connectivity will reach 22% according to the ENTSO-E calculations.

The forecasts and the targets for development of the electric power sector in Bulgaria outline the tendencies for development of the electricity market in the country towards its full liberalization and its integration in the regional and the common European energy markets, increasing demand for electricity in the region at competitive prices and increased environmental requirements, increasing possibilities for cross-border exchange of electricity through the development of the transmission power infrastructure, in connection with enhancing energy security and integration the of national electricity markets. These trends create an opportunity for marketing of electricity, generated by new generation capacities in the country with an annual electricity quantity of about 6000 GWh, set in the forecast scenario since 2030, and since 2035 these quantities will increase twice.