

Bulgaria: Sustainable Energy Development Strategy for next 10 years

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Bulgaria plans to invest in renewable energy, energy efficiency, nuclear energy and natural gas in order to ensure the country's energy security. This includes introduction of 2.65 GW in renewable capacity by 2030, mostly in solar power plants.

Bulgarian Ministry of Energy revealed the country's draft Sustainable Energy Development Strategy until 2030 with a view to 2050, according to which, it is not planning to close down its coal-fired power plants.

The draft also envisages new 2 GW of installed capacity in nuclear energy (NPP Belene), which would come online after 2030. Regarding renewable energy, the majority of projects – 1.17 GW will be solar-based, with 249 MW in wind farms and 220 MW in biomass power plants to be added in the next decade. According to the strategy, by 2030 the share of renewable energy in gross final consumption should reach 27.09 % (RES share was 20.53 % in 2018), contributing to the pan-European target of 32 %. Within the goal, RES electricity generation should rise to 30.33 % from 22.1 % in 2018.

Regarding investments in renewable sources, the Bulgarian Government considers the Yadenitsa Hydropower Complex key to balancing the electricity system. The project is included in the European Commission's projects of common interest (PCI) list and envisages an increase of the volume of HPP Chaira's reservoir, the construction of a dam and a pumped storage hydropower plant. The project's cost is estimated to some 220 million euros. Over 200 million euros is earmarked for 180 MW in battery storage and an equivalent amount is necessary for investments in combining renewables with local storage including hydrogen, if the solution is deemed appropriate.

Bulgaria currently operates four coal-fired thermal power plants which run on lignite. The largest one is state-owned TPP Maritsa East 2, with installed capacity of 1.61 GW. Total installed capacity in coal is 3.85 GW with a share of 39 % in the gross electricity production as of last year, compared to 37 % for NPP Kozloduy. State-owned National Electricity Company (NEK) operates 30 hydro power plants with overall capacity of 2.71 GW and 937 MW in pumping mode.

Regarding market integration, Bulgaria expressed the intention to work on the establishment of a single internal electricity market in Europe and the integration of the contracting parties of the Energy Community, particularly North Macedonia and Serbia.

One of the goals is to unify the domestic day-ahead market with that of Serbia and Croatia and, separately, with North Macedonia, by 2022. In the same segment and the intraday, the integration with Romania and Greece is scheduled to be finished by early next year. The

intraday market is envisaged to be unified with North Macedonia and Serbia by 2024.