

Two Western Balkans countries made a final push to launch investments in coal-fired power plants during last month. Two more came very close to join their neighbors. Construction of a new 350 MW unit started in Serbia while the Federation of Bosnia and Herzegovina signed a loan agreement to build a 450 MW unit. These two countries are closely followed by Kosovo and the Serb Republic. Projects will be delivered by governments and stateowned power utilities, Chinese banks and investors and one company from the US. New units will continue Western Balkans' heavy reliance on coal power plants.

On November 20, China Machinery and Engineering Corp started construction of a 350 MW unit at Serbia's third largest coal-fired power plant Kostolac B. Thermal power plant Kostolac B has two 350 MW units which are operational since 1988. New B3 unit is the first new capacity for electricity generation in Serbia in more than 30 years and the project is worth USD 715 million. The operator of the new unit will be public power utility Elektroprivreda Srbije, owner of the Kostolac B.

Export-Import Bank of China secured USD 608 million through a 20-year loan while the rest will be provided by the Government and state-owned company EPS. Part of the project is the expansion of production at the nearby Drmno lignite mine from 9 to 12 million tonnes of coal per year. The entire arrangement is based on an Agreement on economic and technical cooperation in the field of infrastructure signed between the Serbian and Chinese governments. Construction is expected to be finished in 2022.

In Serbian overall electricity generation structure, the share of coal-fired power plants is around 70 percent while the rest is produced in hydropower plants. Serbia will shut-down 8 coal-fired units of EPS which do not comply with ecological requirements of the European Union's Large Combustion Plants Directive, by 2024. Electricity generation from these power plants will be compensated by the construction of 7 new wind farms, one natural gas power plant and coal-fired unit B3 in TPP Kostolac B.

Just a week later, public power utility Elektroprivreda Bosne i Hercegovine signed a loan agreement for financing the construction of 450 MW coal-fired unit 7 in thermal power plant Tuzla. The agreement was signed at the 6th Summit of China and 16 Central and Eastern European Countries in Budapest. The project is worth EUR 722 million and Chinese Bank EXIM will provide EUR 613 million loan with duration of 20 years and 5 years of grace period. State-owned Elektroprivreda Bosne i Hercegovine is located in the Federation of the Bosnia and Herzegovina which is one of the two autonomous entities of the Bosnia and Herzegovina.

Federation's authorities said that this project will have a huge environmental significance because the new unit will reduce air pollution emissions in City of Tuzla. The new power



plant will be constructed by China's Gezhouba Group Company Limited and Gunagdong Electric Power Design Institute. They were selected by the Government as the preferred bidder in 2014.

Thermal power plant Tuzla was put into operation 54 years ago with 6 units and installed capacity of 780 MW. Units 1 and 2 are decommissioned while the remaining 4 units generate half of the total electricity production in the Federation of BiH. Two units will be shut-down until 2024 due to environmental standards.

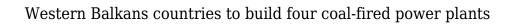
A third power plant is going to be built in Kosovo. On December 13, the Kosovo government and US-based power utility ContourGlobal agreed to build the 500 MW coal-fired power plant Kosova e Re. On December 21, the two parties signed a contract for the construction of the power plant. A US company has signed a memorandum of understanding with the Kosovo government in December 2015 for the financing of the power plant. The investment is worth EUR 1 billion. Construction is planned for next year and the plant is expected to come online by 2023.

The Kosovo government said that the facility will also include a co-generation component with heat production that will be used for district heating systems in the nearby cities. The power plant will have a single supercritical block, with a minimum efficiency of 40%, Government said.

The new facility will replace the 40-year-old Kosovo A power plant. Almost all of the electricity generation in Kosovo stems from two dated coal-fired plants, Kosovo A with five units and Kosovo B with two units. The first unit of thermal power plant Kosovo A was put into operation in 1962 and the last in 1975 while the first unit of TPP Kosovo B was built in 1983 and second in 1984. Both power plants have installed capacity of 1,300 MW, but due to technical problems only 960 MW is operational. Kosovo has around 15 billion tonnes of proven lignite reserves, the third largest in the Europe, after Germany and Poland. On December 12, Serb Republic, second autonomous province of the Bosnia and Herzegovina, set up joint venture to build a 350 MW coal-fired power plant Gacko 2 with two Chinese companies. The project of replacing the 300 MW power plant Gacko with the new 350 MW facility Gacko 2 will be delivered by China Machinery Engineering Company and Emerging Markets Power Fund. Two companies own 51% of the joint venture while the rest belongs to Government of the Republika Srpska.

The Gacko 2 project is expected to cost more than USD 588 million and will be financed mainly by the Chinese. Negotiation between Serb Republic and Chinese companies started more than a 2,5 years ago.

Thermal power plant Gacko began electricity generation in 1983. It is operated by





Elektroprivreda Republike Srpske, public power company located in Serb Republic. Gacko power plant has one $300~\mathrm{MW}$ unit.

Source: energyworldmag