

Serbia EPS increasing its generation capacities, construction of new TPP Kostolac unit underway

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EPS branch in Kostolac is implementing one of the largest investment projects in Serbia, delivering a new generation unit of 350 megawatts at the Kostolac B thermal power plant to the power system. After almost three decades, Elektroprivreda Srbije is building a modern, efficient unit that will meet all domestic and European environmental standards. Technical characteristics of the new unit include emission limit values for sulphur dioxide up to 150 mg/m³, nitrogen compounds up to 200 mg/m³ and dust up to 10 mg/m³. The expected annual generation of the Kostolac B3 unit is about 2.5 billion kilowatt-hours of electricity. Building of the Kostolac B3 unit stimulates the growth of the Serbian economy and increases the security of the Serbian power system in the long run.

The value of the investment under Phase II of the Kostolac B TPP Package Projects is USD 715.6 million, with the share of the Kostolac B3 unit construction project totalling USD 613 million. The project is being implemented in cooperation with partners from China, based on intergovernmental agreements. Project financing of 85 percent was secured from loans extended by the China's Exim Bank, while the contractor is the China Machinery Engineering Corporation. Phase II of the Kostolac project also includes a part related to increasing the production capacity of the Drmno mine from 9 to 12 million tonnes of coal annually by building the sixth overburden system. This portion of the investment is worth USD 97.6 million, while the construction of the overburden ECS (excavator-belt conveyers-spreader) system has been completed.

The project was divided into 14 phases in order to obtain building permits faster, and start works as soon as possible. The works are intensively progressing in three directions: preparation of the design documentation and obtaining permits and approvals, followed by the manufacturing and delivery of equipment, as well as the site works. One of the main prerequisites to start equipment manufacturing and commencing site works is the preparation of documentation, as well as obtaining approvals from the relevant institutions.

The entire documentation is fully in line with the Serbian regulations. Starting from 2016 to date, an energy permit was obtained, followed by a decision approving the Environmental Impact Assessment Study for the project, followed by the location conditions by the Ministry of Construction and Transportation.

So far, eight building permits have been obtained, covering more than 85 percent of the project, which has opened up the possibility of carrying out essential site works.

In January 2019, the conditions to start manufacturing main equipment - boiler, turbine and generator were fulfilled. At the moment, some 130 different manufacturers of parts and equipment have been anticipated, while the estimated number of inspection and testing

plans is around 500, 80 percent of which has been approved.

Equipment manufacturing for the chemical water treatment system, pumping station, stack, MTS (main technological system), flue gas desulphurisation plant, limestone system and wet electrostatic precipitator have already started. The progress of construction works is conducive to design documentation development.

Preliminary works for the entire construction site include the development of temporary roads, fencing of the construction site, supplying the site with electricity, water, sewage development and other activities essential for smooth and safe site operations. Cooperation with the Chinese side is at an enviable level. According to plans, the chemical water treatment system, stack and pumping station works will be completed by the end of the year.

When it comes to the building permits, it is planned to obtain building permits for the heavy fuel oil plant, internal coal transportation, internal ash and slag and gypsum transportation, connection to the 400 kV and 110 kV switchgear, as well as the external coal transportation by late 2019, enabling works on the new systems early next year. This would open up works on over 95% of the plants.

The plan is to complete the foundation for the MTS and begin the erection of the steel structure, as well as to start works on flue gas depressurisation systems, limestone system as well as the wet electrostatic precipitator.

Investments

In addition to building new capacities, EPS is upgrading existing thermal power plants, hydropower plants, mining machinery and opening new mines. After decades of reliable operation, EPS' thermal power plants and hydropower plants will gain more power and a new life through revitalization. Implementing a large investment cycle will provide enough energy for EPS to continue to reliably and steadily supply some 3.5 million customers.