

Lignite as lead resource for Serbian Power Plants, increasing demand opens new investments

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Lignite, mined in opencast pits, remains one of the main fuels for power generation within the long-term development plans of EPS. In 2010, total power generation in Serbia reached 35.9 TWh of which 25 TWh was based on lignite (69%). Most important company which supplies the serbian power plant is Mining basin Kolubara which started a new investment cycle, modernization and upgrade of its production capacities.

In 2010, EPS produced a total of 37.2 million tonnes of lignite in opencast mines located in the Kolubara and Kostolac basins. The lignite, extracted by the corporate enterprise MINING BASIN KOLUBARA, was used to generate 46.2% of the total electricity produced by EPS, whilst the lignite mined by TPPs-OCMs KOSTOLAC at Kostolac fuelled 14.4% of EPS power generation. The ratio of excavated overburden to lignite was 2.19:1 cubic metres per tonne in the Kolubara mining basin and 4.00:1 cubic metres per tonne in Kostolac. Mining in the very populated Kolubara basin is rather costly, as many compulsory land purchases must be made before mining activities can start. The Kostolac basin is an agricultural part of the country with its famous archaeological site Viminacium.

MINING BASIN KOLUBARA operates four opencast mines, namely Field B, Field D, Veliki Crljeni and Tamnava West Field. The lignite is used to generate heat and power at the Kolubara thermal power plant (TPP), TPP Nikola Tesla A and B, and TPP Morava. TPPs-OCMs KOSTOLAC operates Drmno mine, supplying lignite to TPP Kostolac A and B. The Cirikovac mine stopped production in 2009.

Lignite output in both the Kolubara and Kostolac basins is expected to increase, since the Serbian energy development strategy includes the construction of new thermal power plants. Investments are therefore needed at existing lignite mines and also for the development of new lignite deposits.

Priority is given to joint projects with strategic partners of EPS, including projects to construct two new 350 MW lignite-based units near the Kolubara mine at TPP Kolubara B and a new unit, Nikola Tesla B3 with a capacity of 700 MW. At the same time, the existing lignite fields will be extended and new deposits will be accessed.

EPS is still in the process of upgrading and modernising its thermal power plants in order to reach the agreed standards required by the national law on environmental protection by 2015. These activities include the replacement of ash transportation and disposal systems in several thermal power plants, as well as the refurbishment of electrostatic precipitators.

The new opencast mine V. Crljani in the Kolubara basin started operation at the end of 2009. The mine produces high quality lignite for the nearby thermal power plants that is also used

to blend with lower quality lignite. Further new lignite deposits at Radljevo and Southfield will be developed.

At Kolubara, mining is conducted with four of six available excavator-conveyor-stacker (ECS) systems. A future opencast mine, which will be EPS