

Everything right on track

System erection started on 23 January 2017 on the Drmno mine erection yard, while the transport of the bucket-wheel excavator to its operating position started on 26 March this year

Phase II of the Chinese loan arrangement implemented in the Kostolac branch of EPS includes two major projects. The first is the construction of the new unit B3, 350 megawatts, as part of the Kostolac B thermal power plant, and the second is the construction of the sixth ECS system, covering four packages: bucket-wheel excavator, belt conveyors, spreader and a substation *Rudnik 5*.

The new mining system will allow the annual coal production of the Drmno to be increased from 9 to 12 million tons. System erection works began on 23 January 2017 on the Drmno mine erection yard, while the tests and adjustments were carried out from 23 September to 14 December 2018. The transport of the modern bucket-wheel excavator - SchRs 1400 - started on 26 March from the Drmno mine erection yard to its actual operating position inside the mine.

All packages were agreed with the Chinese company CMEC on 20 November 2013. They came into force on 4 January 2016, with a deadline of 47 months. For the bucket-wheel excavator, representing the first package, CMEC signed a contract with the German company *Thyssen Krupp Industrial Solution* from Essen. Mechanical and electrical erection was performed by *Goša Montaža* and *Mikro Kontrol*, respectively.

The subject of the contract for the second package, the B-2000 belt conveyors, are four drive stations (VT-VI-5, VT-VI-6, OT-VI-7 and OT-VI-8), 5,000-meter long conveyer belts and a belt conveyor control and monitoring center. CMEC commissioned the belt conveyors from the company *Gosa FOM* from Smederevska Palanka. The tests and adjustments on the erection yard lasted from 25 July until December 2018. The transport of VT-VI-5, VT-VI-6 drive stations began on 19 March this year.

The spreader is the third package contracted with CMEC. The subject of this contract is a spreader with the capacity of 8,500 cubic meters per hour and a hopper car, while an Austrian company *FL Smidth* (former *Sandvik*) was commissioned to perform this job. Tests on the erection yard were conducted from November 2018 to February 2019. The transport to the operating position inside the mine was planned in the middle of April this year. The hopper car of the spreader was erected directly inside the mine, at the operating position of the spreader.

Rudnik 5 substation was also contracted with the Chinese company - CMEC. This substation also comprises a 3 kilometres long 110 kV transmission line. The substation project was implemented by the company *Elektroistok - Projektni Biro* from Belgrade, while the contractor was the company *Energotehnika Juzna Backa* from Novi Sad. The *Rudnik 5* building permit was issued by the Ministry of Mining and Energy on 26 March 2019, while

the equipment has already been delivered.

Package Value

The total value of the contract for the construction of the sixth ECS system from the Chinese arrangement is USD 97.6 million. This package includes a bucket-wheel excavator (6,600 cubic meters of overburden per hour) valued at USD 41.6 million, four drive stations and a five kilometre long belt conveyor, valued at USD 31.4 million, while the total value of the spreader (8,500 cubic meters per hour) and the *Rudnik 5* substation (110 kV - three kilometres long transmission line) is USD 18.9 million and USD 5.7 million dollars, respectively.

For four more drive stations and seven kilometres of belt conveyors, EPS secured additional EUR 27 million.