



*The deadline for production of the entire equipment is the end of 2015.* Modernization of Open Pit Mines (OPM) of Mining Basin "Kolubara" begun with the erection of the first and second ECS systems for the OPM "Tamnava - West Field" is continued within the project "Environmental Protection and Enhancement in MB Kolubara". Project 182 million euros worth, financed by EBRD, KfW Bank and EPS (which will provide 28 million euros) will enable that the most modern equipment which can be found at this point in Europe is erected in excavators, conveyors, stacker and power supply for the Field "C", but also the equipment for coal homogenization for the Tamnava Mines. The goal of the project is saving money but also saving coal as a non-renewable resource and reduction of harmful gases emission.

Project A includes the design, manufacture and installation of ECS system for the future open pit mine Field "C". Value of this part of the project amounts to 80 million and it is financed from the loan of the EBRD Bank. "Green Loan" also includes projects B (stacker for the OPM "Tamnava West Field") and C (equipment for quality management of coal in Tamnava OPMs). Funds for the projects B and C, in the amount of 74 million euros, are provided by the KfW Bank.

Project A, i.e. ECS system, includes four packages. First package (A1) is a bucket wheel excavator and the supplier is the company "ThyssenKrupp". Second package (A2) includes four conveyor belts in the length of five kilometers, including the power supply, i.e. dispatch center, and transport platform for carrying the drive station. Work constructor is a Polish firm "Kopex". Package A3 includes a stacker and the work constructor is the company "Sandvik". Package A4 includes a power supply system and this part of the project will be carried out by the national company "Montprojekt".

First agreements for the Project A were signed in March 2013 and came into force in June for the packages A1 and A2, in July for the package A3 and in October for the package A4. Envisaged deadline for the production of the entire equipment is the end of 2015. The final phase of the engineering adoption, which is the key phase for the realization of the project, is in progress.

During the engineering development, the teams of "Kolubara " and "EPS", thanks to extensive experience, are trying to install the most modern technical achievements into the equipment, that is to be delivered. The optimal equipment is being harmonized with the contractor through the part of engineering in order to improve the exploitation quality as much as possible. We have already had a similar excavator in OPM "Tamnava-West Field", and the contractor also was "ThyssenKrupp". We have a significant practical experience in the application of this type of equipment, so we have installed some improvements in the

new excavator as well as the conveyors delivered by “Kopex”. We had experience with “Kopex” with the delivery on the first ECS system to Tamnava West Field. The only unknown contractor for us is “Sandvik”, but we have had very good cooperation with them so far. Their project team respects the experience of “Kolubara” and “EPS”, so all the solutions we proposed were supported - explains Dobrivoje Stefanović, project manager of the ECS system.

After the adoption of basic engineering, which means that the main concepts were approved, the adoption of detailed engineering is in progress. Regarding the package of the bucket wheel excavator, the final stage of detailed engineering development is in progress. There is a delay of about three months, which, in the opinion of the contractor, will not cause the postponement of the project.

However, in this package there is an objective concern that there could be some deadline exceeding in the development of equipment, primarily steel structures. Namely, the production of steel construction and most of the mechanical equipment for the excavator, the contractor has agreed with “Metal”. Due to organizational changes, given that at the time of the equipment arrangements “Kolubara-Metal” was not part of MB “Kolubara”, and now it subjects to the procedures of EPS, the realization of material purchase for the equipment production was not possible until the EPS business plan wasn’t adopted and thus the investment plan of MB “Kolubara”. Stefanović explains that a meeting was held with the management of “Kolubara” and “ThyssenKrupp” at the end of April in order to overcome this problem. At the meeting, objective problems were considered and a plan of operations was adopted, by which the schedule would be brought back within the frame envisaged by the agreement. The conclusion is that there are possibilities to compensate the delay in the further implementation of the project. Adoption of the detailed engineering is expected in August.

Regarding the package A2, we had a slight delay of adoption of detailed engineering, caused by the requirements for additional clarifications concerning static analysis, drive station and transport platform. For all packages and successful equipment operations regarding the latter maintenance we insist on maximum precision in technical documentation development, both at the level of detailed drawings, and in terms of the static calculations and operational unit calculation. The contractor guarantees that the delay in the engineering development will not affect the equipment completion deadline. This is the first operative project within which the equipment development has already started. On two occasions, we had a piece of equipment from the company “Kopex”, and production quality was at the top level - said Stefanović.

In terms of third package, i.e. the stacker, the activities are being carried out as planned. In early July, a detailed engineering was adopted, and in August the receipt of equipment in several factories was announced.

As for the A4 package, power systems, the engineering is adopted and the contractor issued the request the land to be handed over to him so that he could start with the construction. Power supply connects all the substations in the system of the eastern part of the basin through the optics and energy, and the system is monitored from the new dispatch center. Power System is used for power supply and connects all three parts of the project. In this package, there is no bigger problem to carry out the obligations within the stipulated time, as there is no major equipment delivery.