After the may 2014 floods in biggest coal mine Kolubara, which supplies lignite coal to thermal power plants Nikola Tesla TENT, biggest investment cycle of overhaul and modernization of equipment was initiated.

Following the Balkan floods in 2014, three companies created a solution to save one of Serbia's main coalmines from total destruction. The state-owned coal mining complex RB Kolubara, in cooperation with the system integrator company MIKRO KONTROL and the global leader in power and automation technologies ABB are working together to reform the Tamnava West coalmine. Prior to the floods, Tamnava produced 14.6 million tones of coal per year.

In May 2014, heavy rainfall filled the open-pit coal mine Tamnava with 187 million m3 of water. Coal being the main energy source in Serbia, quick action was vital to drain the mine and ensure continued energy production in Serbia. RB Kolubara, a long-term partner of ABB in Serbia, drained the flooded Tamnava coal mine and consulted ABB about the replacement and reconstruction of flooded machinery and equipment. RB Kolubara also brought in the system integrator company MIKRO KONTROL to install the equipment. The three partners developed new measures to reconstruct the equipment and install new ABB machines to replace the ones that had been flooded.

– We have been working as one team since the beginning of the project – said Radovan Maksimovic, Coordinator of overhaul planning and electrical system maintenance, at RB Kolubara.

ABB and RB Kolubara agreed to install the newest ABB equipment on the market, which includes medium voltage switchgear, transformers, drives and low voltage (LV) motors. The equipment is currently being assembled.

– The new high efficient LV motors reduce energy costs. The technology in our industrial drives ACS 880 and ACS 800, with ABB's Direct Torque Control, contributes to further savings. This solution significantly reduces the maintenance costs of all equipment – said Jovan Miladinovic, Local Division Manager at ABB in Serbia. The machines are produced and shipped from Finland, and installed and maintained in Serbia, with the help of trained personnel and successful cooperation between engineers and mine workers.

The initiative was taken after 15 years of successful partnership between ABB and RB Kolubara. ABB has previously provided RB Kolubara engineers with training in Finland and Germany. Likewise, in honor of a new partnership agreement, ABB provided four engineers from MIKRO KONTROL with training at the ABB's University of Helsinki. Continued training is planned during summer 2015.

The new cutting-edge ABB drives are developed with advanced technological solutions that ensure a more efficient usage, lower maintenance costs and lower energy usage. RB Kolubara is now operating with the new drives that are lowering the cost and use of electric energy to a significant extent, by regulating the speed more efficiently than old equipment.

The new drives are equipped with an efficient self-regulatory system that regulates the customers' energy use. With the new drives by ABB, energy users will enjoy lower energy costs every year.
All ABB motors for this project in Serbia are approved according to the EU standards of IE2 efficiency low voltage. ABB's advanced technology and equipment holds among the best quality in the region, and is designed to operate in harsh environments in terms of temperature and humidity.
For the first time, RB Kolubara will be operating with 27 new motors based on cutting-edge technology with the highest standards on the market and in Serbia, provided by ABB Motors and Generators. The new technology will ensure an increase of efficient energy production and closer cooperation between long-term and new partners ABB, MIKRO KONTROL and RB Kolubara. Zoran Soskic, Engineering Manager at MIKRO KONTROL says that with the development of technology, we can expect an increase in productivity in application engineering in Serbia.
ABB provides its users with services in infrastructure and transport with consideration to improved living standards.
ABB is a leader in power and automation technologies that enable utility, industry, transport and infrastructure to customers to improve their performance while lowering environmental impact. The ABB Group operates in roughly 100 countries and employs about 140,000 people.