

Serbia: Voith Hydro performance guarantee for Zvornik HPP modernization and output increase project

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Upon rehabilitating total installed power of power units will amount to 125,6 MW, which is 30 % more than the current power. – Upon receiving the new turbine model, testing to be carried out in July already.

After completing rehabilitation of four power units of hydro power plant “Bajina Bašta”, the next in line for modernization is HPP “Zvornik”. The company “Drinsko- Limske HPPs” continues with rejuvenation of production capacities. In Mali Zvornik, on February 12 a meeting was held with all the contractors, equipment suppliers, technical team and consultants, when the basic principles were established for the realization of the project of rehabilitation of the HPP “Zvornik”. The key persons from each side were appointed for the project, the method of communication was agreed as well as the project management. At this meeting, the contractor “Voith Hydro” has informed the representatives of EPS and the company “Drinsko-Limske HPPs” that the activities on model development were largely in progress and that the testing of the model could be executed in July this year.

However, the tender procedure for the rehabilitation project of HPP “Zvornik” was completely carried out following complex and strict guidelines of the German KfW bank. In each phase of the tender procedure it was necessary to have the approval of the consultant and KfW Bank, in order to be able to move to the next phase. The contract for rehabilitation of the HPP “Zvornik”, between JP EPS, “Drinsko-Limske HPPs” and “Voith Hydro”, in total worth 63,15 million euros, was signed on July 30th last year.

– Significant role played the technical team, made of representatives of EPS, HPP “Zvornik”, “Drinsko-Limske HPPs”, as well as design engineers – Mijodrag Čitaković, director of “Drinsko-Limske HPPs” pointed out. – Once, the work was carried out without looking at the time, holidays, and we had the assistance from many experts from “Drinsko-Limske HPPs”. At every moment, we had the support from the Management of EPS. We are especially proud of the praise given by acting director of EPS at the ceremony of the Contract Signing. He said that many work, efforts and knowledge was behind the experts which had led to the contract signing and that he was very pleased that tender procedure for the selection of the contractor in the modernization had passed without a speck or remark.

After July, last year, when the contract was signed, followed a period in which the

Contractor “Voith Hydro” was obliged to provide a guarantee for good work performance, guarantee for advance payment and guarantee for insurance of export loans.

According to our source, the revitalization of HPP “Zvornik” , the complete replacement of the turbine equipment and turbine regulation , cooling water and compressed air systems, generator with excitation systems, transformers units , generator voltage equipment ,

equipment for 110 kV switchgear . It was planned to build in a modern system for the plant management. The new turbine will have a larger impeller diameter and a better degree of efficiency. With the new designing solutions, such as for the impeller hub to be filled with demineralized water, and not oil , the use of self-lubricating bearings without the use of grease, the pollution of the Drina River will be prevented, which would happen in the event of turbine oil or grease leakage.

Upon revitalization, the total installed capacity of the power unit will be 125.6 MW, which is 30 percent more than the current power of 96 megawatts. This is virtually the increase of the installed capacity by the power of one power unit- points out the Director of “Drinsko -Limske HPPs”

In addition to the activities related to the revitalization of main electromechanical equipment, parallel activities of the replacement of equipment for drainage and discharge, rehabilitation of hydro-mechanical equipment and multi-purpose cranes, mounted sweepers, reconstruction of system of self-spending and reconstruction of the system for heating, cooling and ventilation of the HPP mechanical halls.

Some extra work is in progress, the digging of the river bed, by which the water elevation will be lowered by about 50 centimeters in relation to the elevation before digging, which will be reflected in an increase in electricity production. Currently, the final building and installation works are being executed on the annex of the right bank and the plateau of the left bank, where the new switchgear and the new command room will be placed.

Engaging local companies

Over more than 100 years, the company “Voith Hydro” has installed more than 40.000 turbines and generators all over the world with total installed capacity bigger than 300.000 MW. The participation of the local companies is very significant in this large-scale job. Namely “Voith Hydro” will engage a large number of our local companies for the jobs of dismantling the existing equipment, erection of the new equipment, performance of construction works required for the increase of the diameter of the impeller and replacement of the vertical lining of the siphon, as well as for the delivery and installation of the system for cooling water and powerplant management system. These companies are as follows: Elnos”, „Goša montaža”, „Institut Mihailo Pupin”, „Geosonda - Konsolidacija”, „Betomaks”, and so on.

Source; Serbia Energy