

The Tender for Preliminary revitalization project for HPP "Bistrica" was announced, being the first in the series of revitalizations of "Lim HPPs". The feasibility study for the wind turbine "Kostolac" shows that this power plant is cost effective and that this location has better wind potential than other locations in the surrounding.

The development of the renewable energy sources and first of all the development of the hydro energy is one of the main goals of "Electric Power Industry of Serbia" - said Mr. Vladimir Đorđević, PhD the Director of the Renewable Energy Sources Department of EPS. He points out that EPS sees the development in the revitalization of the existing HPPs and building of the new, both larger and smaller ones. According to our interlocutor, EPS today produces annually about 30% of electricity out of HPPs i.e. 9 to 10 billion kWh, while the production of TPPs reaches some 26-27 billion kWh. If EPS wants to keep the production at the same level as today, irrespective of investments in the "green" energy, the coal will in the period to come still be the basis of production.

What is waiting for us hereafter the revitalization of the existing HPPs?

We have recently finished the revitalization of the HPP "Bajina Bašta" and the revitalization of the HPP "Đerdap 1" is ongoing. The Contract for the revitalization of the HPP "Zvornik" is signed and the further works on revitalization of the Power Plants are awaiting for us. Revitalization of the HPP „ Ovčar Banja" and HPP "Međuvršje" have been completed in 2011. Upcoming is the revitalization of the main equipment on the "Vlasinske HPPs", and the first phase of it was put in operation in the beginning of the 50s of the last century, while the second phase was put in operation in 1975. During the previous years, lots of work was done on the so called partial revitalization of these HPPs, but the revitalization of the main equipment is necessary. The expert advisory board of EPS recently evaluated the project of this revitalization and concluded that, having in mind the time necessary for performing the next revitalization, the scope of main equipment revitalization towards the complete replacement should be reassessed. Until the end of the year, we expect the Preliminary Design to be finished together with the Feasibility Study and after that the Tender for revitalization of the main equipment. The Tenders for the Preliminary Design for the revitalization Project of the HPP "Bistrica", as well as for the first in the series of "Lim HPPs" are announced. The Tender for documentation preparation was announced, i.e. Preliminary Design for the fourth, additional power unit for the HPP "Potpeć". The Project for building the next fifth power unit is ongoing in the HPP "Bajina Bašta" and that is in relation to the Serbian-Italian agreement on cooperation in energetics. Revitalization of the HPP is very cost effective because the building dimensions of the facilities are kept, and the complete mechanical equipment is changed and the investment is 50 %- 70 % cheaper if compared with the facility of the completely new HPP, and we also get the power plant ready for the new lifetime.

If we get the Decree from the Italian Government regarding the electricity production

gained from the renewable sources, i.e. the price of 155 Euros per megawatt hour, the fifth power unit in the HPP “Bajina Bašta” is the first on the list because it can be finished for the shortest time. Namely, a few years ago, the General Design with the Feasibility Study has been finished for the fifth power unit, including here also tender documentation.

Which new Projects are “on the table”?

We finished the general Designs for the “Ibar HPPs”, that are also part of the agreement of the Government of the Republic of Serbia and the Government of Italy signed in 2011 and we are still waiting for the Decree from the Italian Government which would approve for which Projects incentive measure of 155 Euros per megawatt hour would be valid. Here are also “Moravske HPPs”, the Project that we are implementing in cooperation with the German Company “RWE” and the first phase of the Project Documentation is finished i.e. the Project with the preliminary feasibility study. Additional research and topology have also been performed as well as shooting of the area from the air. The next step is the development of General Design with the Feasibility Study, for which signing of the Contract is expected.

What happens with the small HPPs?

EPS took the loan of 45 million Euros from the European Bank for reconstruction and development too early. With that loan, EPS planned the modernization of 15 existing small HPPs and building of seven new ones. Among the new small HPPs are also the capacities on the existing water management facilities, but some of them are never going to be built, because of insoluble property relations. It has been agreed that in the next two to three months it should be determined what exactly we are going to do. Regarding the revitalization of the 15 existing small HPPs, we expect that until the end of May the Tender for revitalization of eight power plants located in the Western Serbia is going to be announced. When we open the Bids, the level of prices is going to be known, and that is going to be the basis for the necessary funds, and then we are going to make the final decision on how much money from the loan we are going to use.

EPS got the locations for the small HPPs on the Open Competition of the Ministry of energy. In which phase are those Projects?

Memorandum with the Ministry was signed in the end of July last year for 15 small HPPs. For the development of documentation for those 15 new HPPs the tender was announced in the end of last year, after the rebalance of the business plan for the year 2013. The chosen designer started with the job on April 1. We expect the Projects for those Power plants to be submitted until 1st of July, so that we could chose, which of them are cost effective, and which are not. For those cost effective, we are going to ask for the energy license and after that the second phase should start. EPS applied also for the nine small HPPs on the other Open Competition of the Ministry. The Contract on the designing services for the first open competition per number, covers also other open competition, so that, as soon as we get the

approval from the Ministry which Power Plants those are, we are going to start with the activities.

What happens with the large Hydro Projects?

The new facility is the pumped storage HPP "Bistrica", the large facility with four power units of 170 megawatts each, of the value of 700 million Euros. I remind you that the Republic of Serbia signed the memorandum of understanding with the Government of Canada, and we expect some activities in relation to that to be implemented until the end of the year, so that the definite decision would be made. Until the end of the year, the Study on place and role of that power plant in the regional system should be finished, as well as the study on development of prices on the regional electricity market for the next 20 to 25 years.

Earlier, it was said a lot for the wind farm "Kostolac". Where did it get with that Project? A few days ago, we got the Feasibility Study for the wind farm „Kostolac“ that shows that this plant is cost effective and that regarding the location i.e. wind potential on the deposit within the PE "TPP-KO Kostolac" is better than other locations in the surroundings. The Study shows that the capacity of Power plants that could be built on the dumpsites, is larger than initially estimated 30 megawatts and for the time being, it is envisaged to be about 50 MW, and maybe more depending on the type of the turbine that would be used. The expert board of EPS should meet until the end of May, when, I am sure, the next phase -the exploration works- is to start. After that, the General Design with the Feasibility Study is on the list. If everything goes as planned, until the year 2016 we expect the building permit for the wind farm "Kostolac". The first wind generator could start operating in 2017. German Development Bank -"KfW Bank" is interested in participating in the project, and signed the Protocol with the Government of Serbia, in which this Project is stated.

What is with solar power plant in Kostolac?

The development of the solar park is envisaged to be built in Kostolac, the power of it is 5 MW, and it is on EPS to envisage wheatear both wind turbine and solar plant are going to be built or just the wind turbine. German "KfW Bank" is also interested in solar park, and in the next couple of months we are going to make the decision. We first have to see the economic parameters and it is still too early to prognosticate anything.

Does the state counts on EPS as the largest factor that is going to fulfill the renewable sources quote?

I think that the approach which the state determined regarding the development of the renewable sources is right and that this is going to lead to achieving of 27% of share renewable until the year 2030- stimulation measures i.e. feed-in tariff started to give results, the production of renewable sources started to grow and I expect that during the next year, by putting in operation of the wind turbines, it would grow more significantly.

Although it is the largest, EPS is just one of the market participants. It is sure that the state

counts on EPS as the important support in the development of production in the hydro power plants. EPS entrusted the development of Projects as “Ibar HPP”, the Everybody asks for his own space

Europe seems to change the politics regarding renewable energy sources, it lowers incentive measures. Is it going to wait for us?

In order to be cost effective, renewable sources ought to have some kind of incentive. In the European Union happens now that the renewable sources suppressed classical thermal production and the new thermal projects became unattractive. In order to develop the renewable sources, the reserve capacity for balancing is needed. That is on one side. The other side is that because of the market influence, the new balancing capacities became largely unprofitable. There are several incentive mechanisms in which “feed-in” tariffs are just one of them. There are also different types of energy sales on the free market in combination with the business with CO2 reduction certificates. It seems that Europe asks for the space on how to keep on going, but they are aware that the sources must be developed further.