

## Problems of small hydro power plants in Serbia, the response of institutions and the reaction of the population

As a member of the Energy Community, Serbia committed in 2012 to implement the then new EU directive, according to which it must increase the share of electricity from renewable energy sources from 21.2% in 2009 to 27% in 2020.

At first glance, small hydropower plants seem like a win-win situation. They will be used to produce electricity from renewable sources, do not have too much impact on nature, and will still be built in the least developed parts of the country, which will bring new investments and jobs there. Yet all these promises went to ashes and smoke.

The recent work to remove the pipes for the small hydro power plant in river Rakita, where activists and locals gathered with shovels to break the pipes and "liberate" the river, is another example of inertia or inaction of institutions, but it is also an opportunity to consider whether SHPPs are needed. In January, the removal of the pipe and the return of the river to its original condition was ordered by the inspectors of the Ministry of Environmental Protection, but as that did not happen, local locals organized to do the job of the state.

For the SHPP to function, in addition to the construction itself, it is not necessary to have a larger number of local workers because their work is quite automated. Instead of adapting SHPPs to nature, investors wanted to adapt nature to themselves, so they started putting whole rivers in pipes to maximize the flow and thus the amount of electricity produced, although there are requirements for hydrological minimum, ie the minimum amount of water that must remain in say to keep the world alive. In addition, these SHPPs were also built in areas that are protected natural resources, which is the equivalent of building a landfill on the territory of the national park. All this has a bad impact on the environment, something that was really wanted to be avoided by building them.

In addition, there are other problems with SHPPs related to the quality of institutions in the country. The first is related to the method of financing SHPPs – the produced electricity is sold at very high preferential prices under the guaranteed purchase system, which enables high profits without any market risk. Therefore, it is not surprising that the number of SHPPs is growing exponentially: in 2010 there were only 12 SHPPs with an installed capacity of 3.17 MW, while in 2019 we have 176 SHPPs with a capacity of 105.1 MW. What is interesting is that SHPPs were not limited by annual quotas for new capacity construction, as was the case with solar or wind power plants. The system works by the public company EPS Snabdevanje concluding a contract on the purchase of electricity for 12 years with SHPP at a certain feed-in (preferential) tariff. At the same time, EPS charges electricity consumers a fee for incentives to produce electricity from renewable energy sources. This fee is an integral part of every electricity bill, and its amount depends on the



total kW consumed. Given that these two figures are not equal, since more money is paid for SHPPs than is collected through the collection of this fee, it goes to the account of EPS. Last year alone, this difference amounted to around 2.8 billion dinars. The prices at which electricity is purchased are many times higher than the stock exchange price of electricity, which enables high profits for SHPP owners.

Secondly, this system of guaranteed profit has attracted many people that at first glance we would not expect in this area. According to CINS, among the investors in SHPPs, there are a large number of people who are connected with the top of the state and politicians, but even people convicted of participating in organized crime.

## SHPPs are a big failure

When all is said and done, SHPPs are an extremely harmful policy. First, for their functioning, we all have money taken out of our pockets through electricity bills, which are then paid to investors through a subsidized guaranteed price of electricity. Secondly, these funds are not even enough for that payment, so the difference is compensated by being paid by EPS itself. This further complicates the business of a company that already has a lot of problems due to poor, and politically set, management (ultimately, we all pay for this indirectly through increased electricity bills).

Third, many people who have deep personal contacts with leading politicians, such as the godfather of President Vučić, entered this business, which leaves great doubt that the procedures regarding this sector were really the same for everyone. Fourth, these SHPPs have a major negative impact on the environment. For this, it is enough to see only the rivers that no longer exist because they ended up in pipes. This affects not only the local flora and fauna, but also other economic activities. Locals now find it more difficult to access water for livestock or to irrigate crops, and such changes can also have significant impacts on torrents, which could increase the risk of local floods.

Additionally, the total amount of electricity produced from SHPPs is terribly small. During 2018, they produced 266 GW of electricity, which is only 0.76% of the total electricity produced in the country. This means that all SHPPs together have almost no impact on whether Serbia will be able to meet its obligations to the Energy Community on a total level of 27% of electricity from renewable sources.

When all this is taken into account, it is clear that the policy of building SHPPs is a big failure, the consequences of which we will bear for a long time.

Source: talas.rs



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