

The Project of the Gas Plants of Peruć on the Cetina River in Croatia is trying to be branded as an important state strategic project. However, without state intervention, it is not marketable, and cost-effective. Ecologists are expected agreed to the termination of the power plant due to high environmental damage. And the firm that invests in the project has, of course, links to the ruling party.

Jutarnji list, Nacional and Privredni vjesnik welcomed the project Vis Viva, which plans to build a reversible hydro power plant Vrdovo and a gas thermal power plant in Perući. While the project of the reversible hydroelectric power plant Vrdovo was greeted in a friendly way, the controversial thermal power plant on Perucac was shaken by water, primarily those scientists and inhabitants of the Cetinski region.

The impelling figures of the energy capacities that burst on the gas thermoelectric power plant at Lake Peruc alarmed the scientific circles, because the planned power generation capacity of 500 MW, the thermal power plant in Perucac would be the largest of its kind in Croatia. Scientists suggest that such a project was over capacitated for Peruac and Cetina River. The consequences for the environment and the local population cannot simply be justified by economic indicators while ignoring those ecologically.

In the context of environmental impacts, the first problem that the profession warns of is heating the Cetina River by throwing water out of the thermoelectric power plant. Namely, the thermal power plant would be cooled by water from Perucac Lake and then thrown into Cetin. According to their calculations, during the winter, Cetina's thermal power plant would be heated by about 3 degrees Celsius, which is within the limits allowed. However, in summer, when the water flow is about 10 times lower than in winter and autumn, the temperature of Cetina would be doubled several dozen more, warned scientists. The direct result of this would be the collapse of the ecosystem on Cetina and the accompanying plants of the plant and animal world. Furthermore, the cooling water should be treated with chemical means to prevent the multiplication of fungi and algae.

Impact on health

Another environmental impacts are exhaust gases. Scientists have calculated that 620 kilograms of exhaust gases will be released per second in a thermoelectric capacity projected on Cetina. Among others, heavy metals and soot, which have been proven to be one of the causes of cancerous diseases. While most relevant scientists in Croatia negatively display the impact of such a project on the environment, on the other hand, the official environmental impact study does not even state any negative data. However, this is not surprising either because the company that has been conducting a study on environmental impact, the Elektroprojekt in Zagreb, participates directly in the construction of the Vis Viva



project.

While the public in the study could expect some complex calculations of the impact of the thermal power plant on air, water, and other relevant factors, there is no such thing in the study. Apart from a few tables with general information on terrain configuration and atmospheric conditions, most studies are actually descriptive, like some beginner's manual. Part of the study is particularly concerned about the issue, which is the part where the most common diagnosis of people's illnesses in the Dalmatian hinterland is mentioned. According to the Registry of the State Institute for Public Health in Split, heart and lung diseases such as acute stroke, ischemic heart disease, respiratory tract infection, bronchitis, asthma and others. Following this somewhat bizarre exposition, it is concluded that 83 percent of men's lung cancer is caused by smoking, while in women it is 34 percent. Environmental pollution, according to current scientific knowledge, has caused about 2 percent of cancer cases. This part of the study indirectly points out that smoking is actually a major cause of illness in the local population than would be the exhaust gas from the thermal power plant. With such a perfidious statement, it is hardly surprising that the investors of this revolutionary project want a priori to wash their hands out of any responsibility from the potential impact on the health of the inhabitants in the vicinity of the power plant.

Market pricing system: the controversy of the state energy strategy

As noted by Miroslav Cvitkovic, PhD in the Ruđer Bošković Institute, if the thermal power plant project is already damaging to the environment then it must be at least economically justified. However, when the figures are put on paper, the project does not seem to have any economic cover. Namely, according to the budget of Cvitkovic and other scientists, who oppose the project, it would appear that the gas costs for the production of one MW would be 52 euros, and the market price for which MW is 40 euros. Costs of investment, workers and taxes are not included in these 52 euro production costs. When the other production costs are summed up, the production price MW produced by the Peru thermal power plant is completely losing its economic base. The next question that arises is, what economic logic stands behind the investor in the context of return on investment and profit creation, if the project at the very start cannot produce electricity that is marketable?

Here we come to the role of the state in this project. Namely, in the Law on Renewable Energy Sources and Highly Effective Cogeneration in 2015, plants such as gas-fired thermal power plants entered the renewable energy incentive system. Whit this, de facto, gas is declared a renewable source of energy. The absurdity of this law is so much greater than one of the priorities in the law, the long-term reduction of energy imports, while on the



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other hand, the gas-fired thermal power plants (which we have to import) into a renewable energy incentive system. The fact that gas is somehow classified as a renewable source of energy, while on the other side wanting to reduce dependence on imported energy, testifies to the paradox of the state energy strategy. But this paradox actually reveals the economic motive of investors throughout the story, which is the system of market premiums. The market price system is essentially the difference between the market price of electricity and the purchase price agreed by the producer with the state. Since the regulator's gas has entered the system of renewable energy sources, it means that the state will subsidize the generation of electricity to the extent necessary to make it commercially profitable to the investor. In figures this means that if the market prices of megavatsata cost 40 euros and the producer of electricity on gas is produced for 50 euros, the state will compensate the manufacturer for the difference between those 10 euros, between the production and the purchase price on the market. Thus, the initial economic unfoundedness of a thermal power plant on gas, gets its meaning in the epilogue with the state and market pricing. Cvitkovic and other scientists came to the conclusion that in the case of Peruc's thermal power plant, the state paid the investor around a billion kuna market premiums annually through subsidies for renewable energy sources. Of course, those billion would be paid by Croatian taxpayers. At the very end, this would lead to a new price hike, as we have already witnessed in the example of state subsidies for "real" renewable energy sources. MCC Exclusive Property - whose Strategic Interest?

The fact that is of particular interest in the whole story is that the creator of the energy mega project "Vis Viva", is the company "MCC Exclusive Real Estate". As the name of the company itself says, the company's focus is on building and real estate. Among others, the company is registered for a wide range of activities, from sales of goods to graphic design, and also for energy-related tasks. Additional curiosity is the information that Zoran Burić, MCC Director, husband of HDZ Foreign Minister Marija Pejčinović Burić. Since it is a private investment, the curiosity is that Vis Viva has been named as a state strategic project worth four and a half billion since last year. However, according to the law on strategic investment projects of the Republic of Croatia, for a state to declare a private project of strategic strategic importance, one of the conditions is that the investor presents evidence of financial capability involving a revised annual financial report. With a registered capital of 50,000 kuna and the last recorded income of 180,000 kuna, MCC's luxury real estate company does not meet the basic requirement for entering the domain of state strategic projects. Also, one of the conditions for applying is a certificate of fulfilled obligations to pay taxes and other public grants, which the company also does not meet because it is on a list



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of companies that do not pay salaries to their employees. All in all, the question remains, on which basis the project Vis Viva received the status of the state strategic project. Given that at a global level, the amount of drinking water is steadily declining year-on-year whereas, on the other hand, water consumption exponentially increases, while stockpiles become increasingly important for national strategic resources. Given that approximately 500,000 people in the Split-Dalmatia County depend on drinking water from Peru and Cetina, Peru and Cetina are of such a great strategic importance to the state and its citizens as to the market-driven private energy project. On the other hand, IRENA, the International Renewable Energy Agency, this year produced a report on renewable energy sources for South East Europe. In this paper, it is estimated that Croatia has a potential of 740 GW in renewable energy sources, of which 532 GW in wind power and 120 GW in solar energy. When it comes to the fact that the solar energy and wind power sector have the potential (along with adequate strategies) to create far more jobs than the fossil fuel sector, as an example in the US, to declare a thermal power plant on a state-owned gas project, it only attests to a defective state energy strategy, which ultimately goes back to the detriment of citizens and the environment.