

Pollution and its effects – have been a major topic of the last few weeks. Who is the greatest polluter in Serbia is a key public question. The answer is not simple, because there is no single cause. It is true that in Serbia a large number of households and public buildings use various types of energy such as coal, fuel oil, heating oil, which is one of the main causes for dust emission increase. The popular Smederevo wood-burning stoves continue to be a sales hit among heating appliances. Serbia is also tormented by traffic. Number of cars is growing, the car fleet is old, and we have been essentially serving as a car junkyard for exported cars from the West for decades. Everything sold by EU citizens ends up on our streets. The influence of the industry in recent years should not be neglected, and especially the fact that forests are getting increasingly depleted. It is also true that energy plants internationally are the ones with large environmental quality impacts. Emissions from thermal power plants are recorded everywhere, it is only a matter of where the statutory limits are exceeded.

When it comes to the thermal power plants of Elektroprivreda Srbije, the decades of survival of this sector are behind us. EPS carries the burden of difficult times and a long period of no investment, as the state has been plagued by enormous problems with war, sanctions and bombing. At that time, there was only one question – whether we would have electricity. All the money was invested in rebuilding what had been destroyed. At the same time, the countries around us then began to introduce the latest technologies and gained a great advantage. When stable production and supply were ensured, EPS also launched its environmental investments. In the last 15 years, according to EPS data, this public company has invested around € 500 million in environmental protection, making it the first in Serbia. At all thermal power plants, electrostatic precipitators were upgraded and particulate matter (PM) emissions significantly reduced. Since 2004, € 97 million have been spent on this. The result is 2.5 times less PM emissions in 2018 than in 2011. According to these data, thermal capacities cannot be the main source of the current particulate matter pollution. According to the Faculty of Mechanical Engineering professor Aleksandar Jovovic, it should be noted that Serbia has already adopted some important documents, with the intention of making the energy sector more efficient, and that a lot has already been done to improve the environmental situation of thermal power plants.

Serbia's natural resources which can be used to generate electricity include water and coal, so it is obvious that electricity independence and security depend primarily on the electricity generated by thermal power plants. Coal is currently the main resource for electricity generation, and thanks to this, the citizens of Serbia have the cheapest electricity both in the region and Europe. Advocates for abolishing coal as a raw material would have

to provide a cost-effective alternative, which is currently impossible. Specifically, similar costs would be nuclear generation, which is prohibited by law in Serbia. And again, wind farms as an alternative are a highly expensive and unsafe option. Large hydro capacities have long been utilized, while the potential of small hydropower plants is far from being able to compete with coal. Electricity imports remain an option, which is only suits traders and those who want to destroy Serbia's electricity independence. Electricity from imports would be several times more expensive than the price now paid by households, especially in periods when demand is higher globally. Certainly, it would never be possible to import as much as 70 percent of the energy now generated by the mining sector. The question then is what are the options. The only solution is to improve the lignite-based energy generation and bring it to a level with the lowest environmental impact. This requires serious investment, projects and time because no such facility can be built in a year or two. According to current indicators, the burning problem of EPS in the thermal sector is desulphurisation. It has recently been reported that the thermal power plants of the Elektroprivreda Srbije represent half of the largest polluters in Europe, which may lead to a wrong conclusion that Serbia's share in Europe's pollution is some 50%, which is far from true. Carbon dioxide emissions in Serbia per capita are far below those of the average per capita emissions, as reported by the engineering economics and sustainable development expert Petar Djukic.

According to EPS, the priority and the largest investment volume, of about € 650 million, is foreseen in the field of air quality protection, through the construction of flue gas desulphurisation systems and primary and secondary measures reducing nitrogen oxide emissions in thermal power plants. In doing so, EPS meets stringent EU environmental standards and lowers emissions below the limits set by domestic and European regulations. EPS has completed the construction of a desulphurisation plant in TPP Kostolac B worth € 96 million and guarantee measurements have shown that SO₂ emissions are well below the current European standard of 200 mg/m³. The flue gas desulphurisation system for four TENT A units, valued at € 217 million is under construction. Projects are also planned for the remaining two units of TENT A, as well as units of TENT B, TPP Kostolac A and the new Kostolac B3 unit, which is currently under construction. EPS' total investment in flue gas desulphurisation systems will be around € 595 million. As announced by EPS, in the coming years, investments of this company will reduce sulphur dioxide emissions by 90 percent, nitrogen oxides by 45 percent and dust emissions by 95 percent.