

## **NERP**

The National Emission Reduction Plan, NERP, entered public debate on 24 December 2018, nearly a year after it was already due to take effect. At the time of writing, the final version of NERP has not yet been formally adopted.

The Government of Serbia submitted the first draft of the NERP by 31 December 2015. No public consultation was organized for this version, despite legal obligations.

Within the same deadline, 31 December 2015, power plant operators submitted a list of “opt-out” plants, which should operate for up to 20,000 hours by 31 December 2023, without improving pollution control.

The NERP approval and adoption process was characterized by a lack of transparency and several contradictions.

In January 2016, shortly after the first version of the NERP was submitted to the Energy Community, a regulation was adopted laying down emission limit values for air pollutants from combustion plants. However, this Regulation only generally describes how emission limits should be calculated, without specifying such limits, and provides that the Environmental Protection Agency should establish an emission register and report on emissions annually.

This provision is consistent with the obligations of the Large Combustion Plants Directive, but cannot be considered as a legal basis for plant owners in terms of compliance with emission limits.

Despite the adoption of this Regulation by the Government of Serbia in 2016, compliance with the obligations of continuous measurement of emissions and reporting was only realized in 2019. As noted by the Energy Community Secretariat regarding the monitoring and reporting of emissions, the Regulation on the Measurement of Air Emissions of Pollutants from Stationary Pollution Sources regulates these issues in accordance with the provisions of the Large Combustion Plants Directive. Serbia has fulfilled its obligation to report in September 2019.

On 24 December 2018, the Ministry of the Environment announced that it had conducted the Strategic Environmental Impact Assessment, SEA, for NERP (for the period 1 January 2018 - 31 December 2027). Stakeholders were given 30 days to submit written comments and a public consultation was held on 17 January 2019.

Since then, there have been no formal notices to suggest that NERP or SEA have been formally adopted. This conclusion was also supported by the Energy Community Secretariat. Therefore, not only did Serbia not violate the statutory deadline for the adoption and

implementation of NERP at the national level by 1 January 2018, but also in the absence of specific legal provisions specifying annual emission ceilings, it is difficult to imagine how these ceilings can be implemented at the level of the plant operator or competent authorities.

As NERP is merely a form of derogation from the application of emission limit values (ELV) at the level of each power plant unit (SO<sub>2</sub>, NO<sub>x</sub> and dust), the absence of the adopted derogation leads to a breach of the Large Combustion Plants Directive due to the failure to comply with the mandatory unit-level ELV.

### **Continuous monitoring**

According to the data of the Electric Power Industry of Serbia, the operators of Serbian coal-fired power plants have installed equipment for continuous measurement of SO<sub>2</sub>, NO<sub>x</sub>, CO and dust on Kostolac B and Kostolac A2 in 2014, while continuous measurements of SO<sub>2</sub>, NO<sub>x</sub>, CO and dust have been carried out on Kostolac A1 since February 2018.

Also, emission monitoring is performed once a year on all units of Nikola Tesla A except A5, then on both units of Nikola Tesla B, units A3 and A5 of Kolubara A. Measurements are carried out twice a year on units of Kolubara A3-1 (all Kolubara units have been excluded from the LCP).

### **Compliance with the 2018 emission limits**

Emissions from coal-fired power plants in Serbia have far exceeded the 2018 ceilings set by the NERP. The biggest problem are SO<sub>2</sub> emissions, which have exceeded the national ceiling 6.16 times. Emissions in 14 coal-fired units included in NERP were 336,372.6 tonnes, while the upper limit for 2018 for 18 large combustion plants was set at 54,575.33 tonnes.

At the plant level, the largest emitters are Kostolac B1 and B2, whose SO<sub>2</sub> emissions were twice the national limit, 113,913 tonnes. Followed by Nikola Tesla B1 and B2, with 89,045 tons.

The Kostolac B1 and B2 case is particularly alarming as the power plant went through a rehabilitation process and in 2017, desulphurisation equipment was installed and commissioned.

Dust emissions have also violated the upper limit for 2018 by over 300 tonnes, even if dust reduction equipment or electrostatic precipitators have been installed.

The largest dust emitters, both in absolute numbers and in terms of exceeding the upper limit, are Nikola Tesla A1-A3 units, with 1,050 tonnes, which is twice the permitted limit.

Other facilities that violated the permitted limits are Kostolac B and Vreoci.

NO<sub>x</sub> emissions in 2018 are 58.5% of the ceiling set in NERP, which means that no coal-fired unit is above its individual ceiling. The question here is why the ceiling for 2018 has been set so high.

### **Current investments**

Electric Power Industry of Serbia provided financing for the complete overhaul of Kostolac B1 and B2 in December 2011. The Serbian Government borrowed USD 293 million from the Exim Bank of China for EPS to equip two units with flue gas desulphurisation technology to align SO<sub>2</sub> emissions with the Large Combustion Plants Directive. The works have been contracted with Chinese company CMEC, which is also building a new Kostolac B unit. Retrofit work was completed in July 2017, according to media reports. According to the Environmental Report, the plant was commissioned in the first quarter of 2017.

However, the same document states that an application for a building permit for installation was only submitted in November 2018. At the time of writing, the permit had not yet been issued.

The installation of desulphurisation equipment has thus far resulted in minimal emission reductions, raising a major warning of the success of this investment. In 2016, before the retrofit, the annual SO<sub>2</sub> emissions were 128,000 tons. At the end of 2018, total emissions were still 113,913 tonnes.

So over EUR 130 million was paid from the public budget to reduce emissions by 11 percent, at a time when available technologies are capable of reducing levels by 85 to 98 percent.

This begs the question whether there is anything wrong with the de-SO<sub>x</sub> equipment on the Kostolac B1 and B2. There is no information in the public whether it is a construction error, a malfunction or a combination of both.

The Nikola Tesla A3-A6 units have also been considering the installation of desulphurization equipment since 2011. The start of the work has only been announced for 2019. This project is funded by a loan from Japan's Export Credit Agency, JICA, while the contractor is Mitsubishi Hitachi Power Systems.

In addition, the Program for the Implementation of the Energy Strategy of Serbia from 2017-2023 envisages a retrofit of A4 unit at the Nikola Tesla thermal power plant, and an increase in installed capacity from 308.5 MW to 335.3 MW.

The Kostolac A1 and A2 units were originally slated to close by 2023, unless they comply

with the IED.

However, the Energy Strategy Implementation Program states that the preparation of investment and technical documentation for the Kostolac A TPP is underway. Preliminary analysis shows that Unit A1 should be withdrawn and Unit A2 reconstructed through environmental measures, with investments of EUR 187 million.

Source: [bankwatch.org](http://bankwatch.org)