

Emissions of harmful gases from large combustion power plants are regulated by two directives - on large combustion plants (LCPD) and on industrial emissions (IED). According to the provisions of the Treaty Establishing Energy Community, the Large Combustion Plants Directive was to be implemented by 31st December 2017, without an extension for preparing National Emission Reduction Plans. However, in October 2013, the Ministerial Council of Energy Community made the decision to postpone its implementation until the end of 2023. In the European Union, this directive is replaced by the Industrial Emissions Directive as of 1st January 2016 i.e. before the Contracting parties of the Energy Community should implement the Large Combustion Plants Directive.

The LCPD refers to the thermal power plants with the capacity equal or higher than 50 megawatts. Its objective is to reduce the level of particles and limit the emissions of sulphur-dioxide, nitrogen oxides and suspended particles from these plants. During the preparation of the National Environmental Approximation Strategy for the Republic of Serbia, it was estimated that the costs of harmonization with the projected values would amount to 1.5 billion euros.

The IED consolidates the LCPD and six other directives, among them the Directive on Integrated Pollution Prevention and Control (IPPC), which is one of the first directives fully transposed into the legal system of Serbia. By the Law on Integrated Pollution Prevention and Control, conditions are defined for obtaining an integrated permit and for applying the standards of best available techniques which have been adopted by the European Commission. All ten thermal power plants of the EPS have submitted their requests and they are in the procedure for obtaining the IPPC permit, which will represent full implementation of this directive within the EPS.

The electric power system of Serbia is the biggest in the region and around 64 % of electricity is generated from the lignite from "Kolubara" and "Kostolac". With the aim of implementing the LCPD and the IED, systems for desulphurization, denitrification of exhaust gases and high-efficiency electrostatic filters must be installed in new plants and in those that are going to be revitalized. The economic analysis presented in the National Environmental Approximation Strategy has shown that there is no possibility of harmonization with the LCPD before 2023, which means that even more time will be necessary for the IED.

In the EPS, they say that, by the postponement of the Large Combustion Plants Directive implementation, we have avoided the situation in which energy stability would be jeopardized by the closure of thermal power plants with less than 300 megawatts of installed capacity, for which replacement capacities have not been provided, and there is no economic justification for the application of extremely expensive modern systems for reducing harmful emissions. The implementation of the Large Combustion Plants Directive means that the existing plants of the EPS must reduce the emissions of sulphur-dioxide

below 400 mg/m³, of nitrogen oxides below 200 mg/m³ and of particles below 50 mg/m³. In the case of sulphur-dioxide, they are going for the option that the concentration should be less than 200 mg/m³ because, in this way, the requirement of the IED will be met simultaneously.

The worth of the projects implemented or planned by the EPS with the aim of achieving the set values amounts to 625 million euros in total. Had the previous decision on implementing the LCPD by 2018 remained in force, it would signify the closure of blocks with the capacity lower than 300 megawatts because the activities for reducing emission have not been envisaged for them, which is more than 1.100 megawatts in total. There would also be a problem concerning the blocks with the overall capacity of 1.200 megawatts, for which environmental protection projects can not be completed by the deadline which has been envisaged previously.

The projects of the EPS within the sphere of reducing harmful emissions leave enough space for fulfilling the assumed obligations towards the Energy Community, and thereby towards the European Union, too. Considering that these projects are long-term and very expensive, the key factor is to provide the money for their implementation timely. The fulfilment of obligations of the EPS also represents a noticeable advance of Serbia in the process of adjustment to the comprehensive environmental regulations of the EU.

Desulphurization in TENT "A" is the most important project of the EPS, the worth of which amounts to 170 million euros, and the deadline for completion is the end of 2017. Funds have been provided by the Japanese International Cooperation Agency JICA. The first phase of the project includes the construction of desulphurization plants for the blocks A3 and A4, and the second phase for the blocks A5 and A6.

This largest environmental project, implemented in Serbia for the first time, will reduce the emissions of sulphur dioxide at the plant outlet below 200 mg/m³, which will satisfy the requirements of the IED, too. In the announced tender, bids were submitted by the company ANDRITZ, the consortium MHPS and FISIA BABCOK. The phase of bids evaluation by the EPS is under way, which will be followed by the approval of the Japanese agency, which should be concluded by the end of January 2015. After the obtained approval, the contract with the bidder should be signed in February.

The deadline for completing the desulphurization of TENT "B" is the year 2019, and the preparation of tender documentation is under way. The estimated worth of the project is 160 million euros. In the TPP "Kostolac", desulphurization will be executed within the Chinese loan. The worth of the investment is around 96 million euros, and the completion is expected at the end of 2015. Within the capital overhaul of the "TPP Morava", planned for the next year, electric filters will be installed, which is an EU donation worth 5 million euros.