

The evidence that we pay close attention to the environmental measures is the fact that in accordance with the undertaken obligations within Energy Community, Serbia submitted to the Energy Community Secretariat the preliminary National Emission Reduction Plan (NERP) and preliminary list of the plants that will use “opt-out” mechanism in December 2015. This mechanism foresees limited plant operation - 20,000 operation hours in the period from 2018 to 2023. After that period, the plant is either decommissioned or its pollutants emission must be harmonized with the emission values for new plants.

Environmental protection has long been an essential part of business operation and strategy of Public Enterprise Electric Power Industry of Serbia (PE EPS). When it comes to the scope and complexity of the projects, invested funds and achieved effects, EPS has become a leader in environmental protection in Serbia and in the region.

With the help of international financial institutions and agencies, EPS has as a socially responsible company raised the level of environmental protection in the context of its business operation. Total investment in this field in the period from year 2000 amounts to about EUR 200 million.

However, what has been done so far is only part of the activities that need to be taken. The most important activities are still ahead of EPS. The total planned funds for the full compliance of EPS' plants operation with EU environmental protection norms in the period 2016-2026, amount to about one billion euros. The most important projects are focused on the reduction of air pollutants emission from thermal power plants, including particulate matter, sulfur oxides and nitrogen oxides.

We should bear in mind that energy sector in the Republic of Serbia is primarily based on thermal power plants. Approximately two-thirds of electricity in the Republic of Serbia is generated in EPS' thermal power plants. Also, strategic directions of the development of energy sector of the Republic of Serbia defined in Energy Sector Development Strategy of the Republic of Serbia by 2025 with the projections until 2030, are primarily based on providing energy safety in compliance with all environmental standards, including the fulfillment of internationally undertaken commitments (Treaty Establishing Energy Community). Given the complexity of the imperative of providing energy safety for the country, relying on national resources for electricity generation plays an important role and therefore the activities related to harmonization of operation of the existing plants with all relevant EU requirements constitute a priority objective for EPS.

When we analyze the situation related to EPS' thermal power plants, we also have to bear in mind that they were constructed at the time when environmental requirements were not as rigorous as they are today, i.e. when they barely existed. If compared to the EU countries,

we should note that at the beginning of '90 these EU countries have started the activities on the improvement of the operation of their power plants in accordance with the EU Directives that were adopted at that time, and that EPS has started those activities after 2000.

Furthermore, installed capacity of coal fired thermal power plants in the Republic of Serbia is far less than in the EU member countries, therefore it cannot be claimed that air pollution level in Serbia is among the highest in EU. We should also take into consideration that, besides energy sector, traffic, industry as well as households (in the event when they use individual furnaces for heating purposes) have the significant impact on air pollution. Data from Convention on Long-range Transboundary Air Pollution - CLRTAP may be used as an illustration of this claim:

Table below presents total emissions in the Republic of Serbia, expressed in thousands of tons for 2013, as well as the emissions originating from public sector electricity generation and district heating system:

Compared to these countries, it is apparent that besides higher number of specific emissions that are created by domestic thermal power plants, EPS's share in total emissions in Europe is very small.

The following charts show the indicators of the emissions of pollutants into the air created by the coal fired power generation [surface of the circle represents total emission in specific countries (kt)]:

In accordance with the commitments undertaken within Energy Community, Serbia submitted to the Energy Community Secretariat, the preliminary National Emission Reduction Plan (NERP) and preliminary list of plants that will use "opt-out" mechanism in December 2015. This mechanism implies limited operation of plants - 20 000 operating hours in the period 2018-2023. After that, the plant will either be decommissioned or its emissions of pollutants will have to be harmonized with the values of emissions for the new plants.

Also, the commitment has already prescribed that new facilities, built after 2018, have the emission into the air in accordance with the strictest limit values stipulated in the Industrial Emissions Directive.

The effects of the measures that will be implemented by PE EPS until 2026, imply emission reductions of 45.93% NO<sub>x</sub>, then 92.25% SO<sub>2</sub>, as well as 83.72% of particulate matter. Besides the availability of financial sources and adequate technical aspects, the negotiation process of accession of the Republic of Serbia to the European Union has the significant impact on time schedule of investments into environmental measures in EPS plants.

Namely, the opening of the Chapter 27 Environment, that includes the EU regulations regarding environmental protection and climate changes, is expected in the following period. During this process, deadlines for the overall harmonization of the operation of EPS plants with the relevant provision of European legislation in the field of environmental protection and climate changes will be defined as well.

Thus, activities for the development of Negotiating Position are expected in the following period, based on the results of the final version of Directive Specific Implementation Plan for the Industrial Emissions Directive. Republic of Serbia shall then present the proposal of definite transitional deadlines for the implementation of Industrial Emissions Directive for each plant separately.

Having in mind the given facts, EPS faces the period of significant investments into the environmental protection measures, that represents a challenge, both financially and technically, taking into account the complexity and deadlines for the implementation of the planned projects.