EDITORIAL WORD

Dear readers and collaborators,

You are holding the third regular issue of 'Elektroprivreda' – the *Electric Power Industry Journal*. To keep our content relevant and to further encourage professional and scientific discussions on the future direction of Serbian energy, we begin this issue with an overview of new technologies and their potential. This includes insights into studies on how Serbia can leverage its resources in the journey towards decarbonisation and energy transition. We aim to explore the technical, technological, economic, financial, ecological, and sociological aspects of this critical transformation.

To preserve the highest possible degree of energy independence, we consider the priority use of Serbia's own resources to be crucially important. Therefore, from now until 2050, when the abandonment of fossil fuel-based technologies is required, it is essential to take thoughtful steps to maintain this status – electricity independence – during the 'green' transition and after achieving its goals. To realise this scenario, which we believe is the only justified one, the first necessary step is to realistically, expertly, and impartially evaluate the resources that Serbia has and can rely on as much as possible. This includes the potentials of solar energy, wind, biomass, geothermal energy, and the remaining, so far unused, hydro potential. New hydro systems with weekly and seasonal reservoirs, especially pump storage hydroelectric power plants and pumping facilities, would further encourage the construction of wind farms and solar power plants in Serbia, which are essential for decarbonisation and energy transition. These hydro capacities, with their characteristics and adequate operation, would mitigate the problem of sudden and large variations in energy production, which will increase over time due to the growing share of intermittent sources in the national production portfolio. By optimally engaging new pump storage hydro capacities when it is most advantageous in terms of the electricity market, additional income would be generated, improving the financial performance of the power industry.

The variable production from solar and wind power plants presents a significant strategic challenge for Serbia's electric power system, as nearly 70% of electricity currently comes from thermal power plants using low-calorific lignite. Therefore, it is equally important to collaborate with the scientific community to explore new technologies that could gradually replace these thermal capacities, which currently cover the base load. It is crucial to determine which technologies are realistic, most suitable, and justified under Serbian conditions and circumstances. Additionally, the importance of ensuring the highest possible level of energy independence for the Republic of Serbia must be taken into account.

One paper in this issue is dedicated to the special aspects of using intermittent 'green' sources. The first aspect covers the possibility of using production from renewable energy power plants to offset electricity losses in the system, and the second focuses on control systems for wind generators. Another important topic in this issue is metrology, which is explored through an interesting and useful paper on the inter-laboratory comparison of Inspection Bodies for the verification of electricity meters, owned by the Distribution System Operator.

In closing this editorial, we hope you find the content of this issue interesting, relevant, and useful. We reiterate our invitation for active participation from our readership. If you are intrigued by any of the opinions, ideas, or proposals presented in the following texts, please feel free to submit your discussions, polemics, or personal positions on specific topics to the Editorial Board. We will gladly review them and consider the possibility of their publication in the next issue of the journal.

On behalf of the Editorial Board,

Vladimir Šiljkut (Shiljkut), Ph.D.E.E.
Editor-in-Chief