

Major country changes

Serbia, as a signatory of the Treaty establishing Energy Community of Southeast European countries since 2005, and a candidate for European Union membership since 2012, is striving to decarbonize its energy sector in accordance with EU energy policy. A significant challenge in this transition is the fact that coal is Serbia's main source of energy, accounting for up to 70% of the electricity produced. Additionally, Serbia, with a gross national income significantly lower than the EU average, cannot utilize EU investment funds, relying instead on very modest and purpose-limited pre-accession assistance funds. As a result, Serbia is forced to finance the large and expensive costs of energy sector decarbonization through loans, which impose much burden to national financial stability. Simultaneously, the increased costs of electricity production from renewable energy sources (RES) are compensated by electricity price increase, causing dissatisfaction among broader population. Moreover, due to the war in Ukraine and increased uncertainty in supply from Russian Federation, particularly with respect to natural gas, previous national development plans based on this energy source are now being questioned. This has further raised concerns about the ability to ensure high quality and financially viable energy supply with a rapid transition from coal to natural gas and renewable energy sources. On the other hand, almost all new investments in the energy sector for utilizing RES are based on foreign capital, which undermines the previously deeply ingrained concept of energy as a public service conducted by public companies. Hence, there is a reluctance, not without reason, to accept that the construction of private energy facilities will contribute to the development of Serbia's energy sector and increase its security in terms of energy supply.

The Low-Carbon Development Strategy of the Republic of Serbia until 2050 has been adopted by the Government (Official Gazette of the Republic of Serbia No 46, 7 June 2023, pp. 47-89). Although there is a consensus on the necessity of energy sector decarbonization, opinions on the dynamics, implementation methods, and financing of this initiative are divided. These statuses, conditions, and phenomena in Serbia have been present during the entire energy transition process, for more than a decade now, leading to the conclusion that the World Energy Issues Monitor survey results in this regard have not changed.

Depending on the sector and the stakeholder providing the viewpoints, opinions vary in a wide range: from the idea of continuing coal use until its complete depletion by around 2050 or slightly earlier until the end of the lifespan of existing thermal power plants, to those advocating for a faster transition to renewable energy sources. At the same time, there is no doubt that rapid transition would inevitably lead to the closure of coal mines, which employ a large number of people, potentially resulting in negative social and societal consequences.

Therefore, the responses of the Serbian Member Committee members to the 2024 World Energy Issues Survey indicate that the Action Priorities and Critical Uncertainties for Serbia include four recurring themes: **Capital Cost, Affordability, Commodity Prices, and Domestic Growth.**

Accelerating country trends over the last 5 years

Although there has been no significant construction of new RES power plants in past couple of years, except to some extent for small solar power plant, to achieve the target of 50% share of renewable energy in gross final energy consumption by 2040, Serbia has enacted a special Law on the Use of Renewable Energy Sources (Official Gazette of the Republic of Serbia No. 40/2021), which was soon after amended (Official Gazette No. 35/2023) to attract new investments in renewable energy sources and introduce balancing responsibility for electricity producers from variable renewable sources. The establishment of an auction system for allocating incentive funds for the construction of RES power plants was completed with the adoption of appropriate by-laws in 2023. Through this system, the first auctions awarded incentives for 425.2 MW of new wind and solar power capacities. With the new legal solutions, the operation of the prosumer was also functionally regulated, which led to the faster construction of a significant number of small solar

power plants. At the end of April 2024, the installed capacity of these solar power plants reached 52 MW.

To accelerate the growth of RES in electricity generation, the Government has already passed the Regulation on the selection of a strategic partner(s) for the implementation of a project for the construction of self-balanced solar power plants with a total installed capacity of 1,000 MWAC (1,200 MWDC) and with battery storages of 200 MW installed capacity and the possibility of storing 400 MWh of electricity.

The expected rapid increase in variable RES power plants and their optimal integration into the existing system will require further development of regionally integrated energy markets with increased interconnection capacities with neighbouring countries. Moreover, the development of these markets will enable efficient cross-border electricity trade and address issues related to energy security. Therefore, these projects will remain a priority for Serbia. Significant actions have already been taken in this respect.

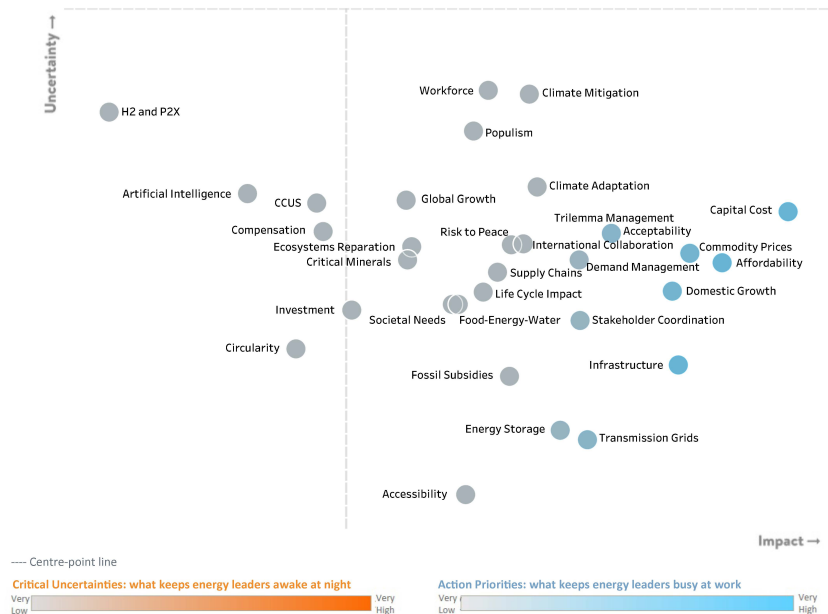
Furthermore, in 2021, the Law on Energy Efficiency and Rational Use of Energy (Official Gazette No. 40/2021) was adopted to improve energy efficiency through a wide range of support for such projects. Based on this law, subsidies for energy efficiency projects for households have been significantly increased. Increased energy prices due to carbon taxes, regulated by the recently enacted Climate Change Management Law (Official Gazette No. 26/2021) and the already developed Low-Carbon Development Strategy, are also expected to contribute to improved energy efficiency.

By the end of the year, the Ministry of Mining and Energy of Serbia is expected to prepare, and the Government to adopt, the Integrated National Energy and Climate Plan of the Republic of Serbia for the period 2030 with the projections up to 2050. Additionally, the Ministry of Mining and Energy of Serbia is expected to prepare a new Energy Sector Development Strategy of Republic of Serbia up to 2040 with the projections up to 2050, to be adopted by the National Assembly by the end of the year.

In 2024, the topic of building nuclear power plants in Serbia was reopened, and appropriate scenarios were considered during the preparation of the Energy Sector Development Strategy of Republic of Serbia. Given that a transition to renewable energy sources alone will likely not be sufficient for long-term electricity production, and with the uncertain role of natural gas as a transitional fuel, the nuclear option has emerged as a candidate for future energy mix participation. However, it should be noted that Serbia still has a moratorium on nuclear power plants in effect, introduced by law (Official Gazette No. 85/2005). Any potential inclusion of nuclear power plants would be after 2040.

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Serbia Member Committee