

Romania faces the same issues as in the last five years; however, some of these issues have been exacerbated by **geopolitical challenges** in the region. Romania remains integrated into the Green Deal effort for energy transition toward a climate-neutral impact and generally faces similar issues as other European Union (EU) countries. In these conditions, the larger use of renewables is a powerful tool to reduce greenhouse gas emissions and fulfil the targets Romania has assumed on its path to climate neutrality by 2050. To this end, the energy sector is steadily transforming through a more diverse structure. One example is the significant increase in prosumers: at the end of 2023, there were 10,000 prosumers, and the expectation for the end of 2024 is to reach 220,000. Currently, the peak capacity of prosumers equals the installed capacity of the two nuclear units. This aligns with the theme for the 2024 World Energy Issues Monitor, "Redesigning Energy with Diversity."

Because of this trend, it is natural to prioritize concerns about **energy storage.** Due to the huge need for storage, this issue has become an **uncertainty** both in procuring and using storage devices. Locations for electricity producers are diverse, depending on the geo-positions of renewable sources to tap their main potentials, but consumption could be elsewhere. Entrepreneurs face difficulties in obtaining licenses for building energy facilities due to environmental restrictions, connecting their devices to the grid, extending the grid to adapt to new energy flows, and other related hurdles. All these factors lead energy leaders to consider **infrastructure development** as an important uncertainty.

The international context has changed due to the war between Russia and Ukraine. Thus, it is not a surprise that one of the top five uncertainties perceived by energy leaders is the **risk to peace**. This regional instability affects political decisions and impacts the economy through changes in the origin of imported energy resources, market volatility, and—most importantly—the impact of energy prices on the entire economy. The good news is that instability is slowing down; however, the risk of war in the region still exists.

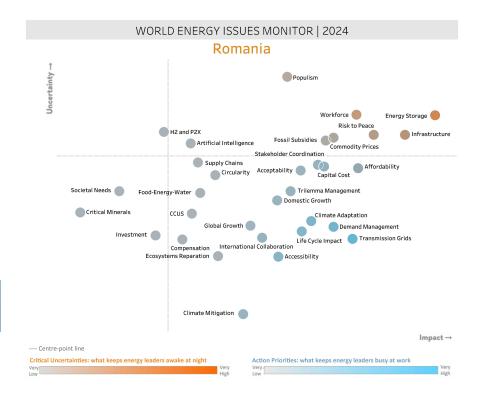
The multiple challenges facing Romania's energy sector require an appropriate **workforce**. Unfortunately, the trend shows that this domain is less appealing to new generations than it used to be. There are several reasons for this situation: it is a difficult job, it requires a long learning effort, and there are other more attractive and betterpaid fields, such as IT. This imbalance between the demand and supply in the labour market creates significant uncertainty and impedes the development of the energy sector.

Like other countries, Romania is experiencing a period of inflation that influences **commodity prices**, introducing instability that affects the entire economy. This situation has led to a change in sector regulations, with more rigid state involvement. When and how this will change back to fully liberalized markets remains uncertain. Additionally, geopolitical developments can fundamentally influence the entire framework, increasing uncertainty.

Regarding the priorities identified by sector leaders, these are considered the main tools for development and reducing the impact

of uncertainties. One of these priorities is the extension and modernization of **transmission grids**, including cross-border interconnections for both electricity and gas. The implementation of the new Directive for Energy Efficiency (2023/1791) has transformed **demand-side management** into another priority. The trend shows a continuous reduction in the country's final energy consumption in recent years, leading to lower energy intensity. Environmental issues such as **climate adaptation** and **life cycle impact** remain top priorities, and the third pillar of the Energy Trilemma—**affordability**—remains a priority, especially given the government's short-term measures to cap energy prices and reduce energy bills. These measures reduce the risk for vulnerable consumers but also send incorrect market signals, disrupt consumer behaviour regarding saving energy, and hinder investment in the sector.

In general, the country has made progress toward a **fair transition** to climate neutrality, and the energy sector has proven resilient in dealing with crises over the past few years. Community involvement in the process is evident through better consumer behaviour and the increasing number of prosumers. The energy mix is continuously shifting toward a lower fossil fuel component, particularly by converting coal power plants to cleaner alternatives. Some risks and uncertainties persist; however, the sector is resilient and, along with domestic improvements, has extended cooperation with regional countries through new interconnected grids. Even with changes in the ownership and management of some major energy companies, the transition has been smooth and without negative effects on consumers. Investment programs based on European and domestic funds are in progress, and their impact will be seen in the coming years.





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