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# 10 Principles of Green Strategic Autonomy for Poland and the EU

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Since the dawn of time, the development of civilisation and economy has been linked to the availability of energy sources and the efficiency of their use. Undisturbed, stable, and predictable access to energy has long formed the foundation of economic development. However, the way in which energy is obtained will undergo significant changes over the coming years, involving a shift away from fossil fuels and the decarbonisation of the energy sector in order to halt the rise in global average temperature and, consequently, slow down climate change.

Achieving climate neutrality will not be possible without an ambitious and dynamic transformation of the electricity sector. In the EU this sector accounts for about one-fifth of greenhouse gas emissions. All net-zero scenarios for the year 2050 predict an increase in electricity use, so the decarbonisation of this sector has become the central focus of the current phase of the EU's climate transition.

We feel that it is crucial to include the dimension of energy security in the climate transition, as this aspect is most frequently cited by opponents of the energy transition as an argument for the continued use of fossil fuels in Poland and the EU. In this policy brief, we present 10 conclusions from our analysis of the relationship between the decarbonisation of the energy sector and ensuring energy security included in our publications: "Polish Investment Needs for Independence from Russian Imports of Raw Materials" and "Policy to Support the Development of a Sustainable Energy System".



ENERGY AND CLIMATE

# Key recommendations

1. Accelerating the decarbonisation of the energy and industry sectors is necessary to make Poland and the EU independent from the volatility of global fossil fuel prices and the uncertainty of their supply.

About 58% of the fossil fuels consumed in the EU are imported - often from non-democratic countries. Russia's full-scale invasion of Ukraine has made the EU painfully aware of the negative consequences of this kind of reliance (fluctuating energy prices, interruptions in the supply of raw materials, the need to curtail consumption and industrial production, as well as vulnerability to blackmail by exporters). The EU does not have sufficient resources to replace imports with its own production in the long-term perspective, so the response should be an accelerated decarbonisation of both energy and industry in line with the Commission's plans outlined in REPowerEU and the Green Deal Industrial Plan.

2. The money Poland spends on importing fossil fuels constitutes an economic loss, as it could be used for energy transition investments (thus contributing to economic development).

The cost of Poland's fossil fuel imports amounts to EUR 17.7 billion per year and would allow it to finance 11.7 GW of wind farms, cover 81% of the costs of the seven-year Clean Air Programme, or purchase heat pumps for 1.7 million households. The funds available to finance this transformation come from both the national budget (the National Fund for Environmental Protection and Water Management (NFOŚiGW), ETS auction revenues) and EU funds (KPO, operational funds) - and by 2027, these funds will amount to EUR 212.7 bn.

3. The concept of green strategic autonomy should be an integral part of the energy transition, as it assumes decarbonisation to be indispensable for achieving energy security in the EU.

Dependence on fossil fuel imports threatens the security of the EU in a broader (than just military) sense. Reducing this dependence by implementing the low-carbon energy transition will contribute to building a more resilient EU energy system and making the energy market more stable. Dependence on imports of low-carbon technologies (although it is of a different nature than dependence on fossil fuel imports) poses a potential threat in the context of energy security and climate goals. Poland, together with the EU, should secure key supply chains and support the development of low-carbon industries within the Union's borders. Thus, the concept of green strategic autonomy fits contributes to the discourse on climate policy while simultaneously having a geopolitical dimension.

4. Sustainable transition will require broader understanding of energy security that takes into account numerous dimensions of how energy system functions.

Decarbonisation will translate into enhanced energy security along these dimensions: a decarbonised energy system makes it possible to secure energy supply, enhances resilience to armed conflicts and natural disasters, as well as strengthens the EU's energy and raw material independence. In this context, we should emphasise the importance of increasing energy efficiency, diversifying and decentralising the energy system, storing energy, supporting citizens and communities in bottom-up initiatives, and catalysing private investment.

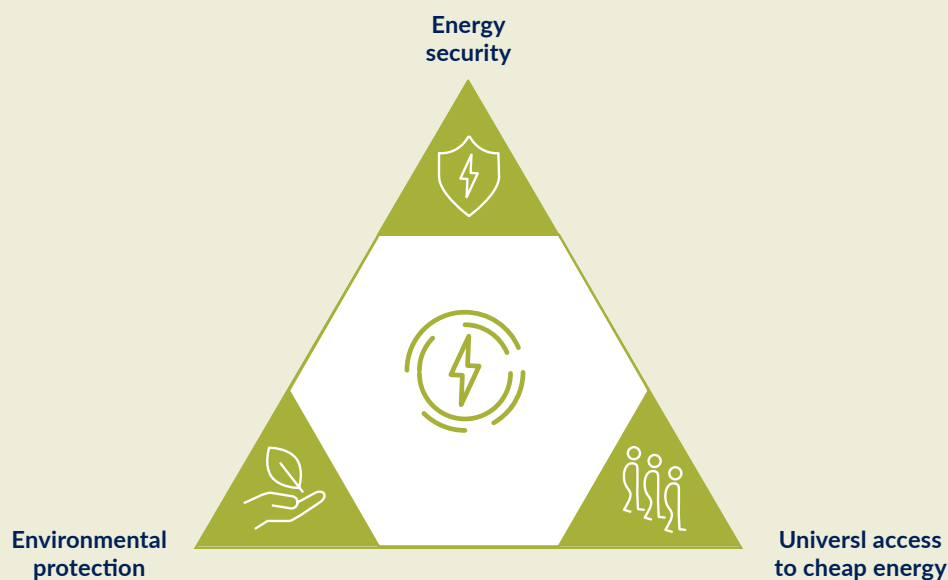


**5. Changes to the electricity system should be based on three pillars: flexibility, decentralisation, and large-scale development of low-carbon energy sources.**

Renewable energy sources as the foundation of the system require real-time balancing, as well as ensuring adequate redundancy during extended periods of reduced generation from these sources. Paradigm shifts in the state's energy and climate policy are needed to take into account all three pillars, followed by legislative changes that create favourable conditions for the development of low-carbon electricity generation and investments in the technologies and solutions needed to integrate RES.

**6. A sustainable energy transition requires navigating and (not infrequently) compromises between energy security, environmental protection, and universal access to cheap energy (the energy trilemma). While building a RES-based system is technically and legislatively challenging, there are tools available to support the process.**

Production of energy from sunlight and wind, which are inexhaustible resources, allows for a reduction in the use of fossil fuels and, consequently, in their imports. Low-carbon RES represent the cheapest solution on the market in terms of the levelled cost of electricity. Their modularity and the possibility of mass production allow them to be developed by a diverse group of investors, thus democratising the energy sector. RES have their drawbacks; although renewable energy is cheap, with its larger share in the mix, system costs and the cost of ensuring uninterrupted system operation in rare extreme conditions (i.e., during prolonged periods of *dunkelflaute*) will increase.



**7. An urgent removal of legislative and market barriers to RES development is needed in Poland.**

These barriers include: a strong oligopoly of state-owned companies that are reluctant to decarbonise, the slow pace of distribution network modernisation (including regulations hampering the development of direct lines), and insufficient support for energy communities. Urgently needed are: a low-carbon reform of the power market, consistent implementation of planned energy storage investments, and the development of cross-border connections.

**8. Poland needs an unambiguous political signal for a green transition, as well as an alignment of energy and climate policy with EU objectives.**

The first step should be to create an ambitious transformation strategy, and its implementors (the government) should be held accountable. The forthcoming update of strategic documents (Poland's Energy Policy until 2040 and the National Energy and Climate Plan for 2021-2030) should set out an ambitious but realistic path for the decarbonisation of the sector, together with planned supporting measures in such a way as to ensure its compatibility with REPowerEU's objectives. Monitoring tools for the implementation of the plan are urgently needed, as they constitute an integral part of strategy implementation.

9. Public resources, such as revenues from the sale of emission allowances, the Modernisation Fund or the National Recovery Plan, should be used to leverage private capital, while protecting vulnerable groups from the potential negative impact that the transition could have on them.

A clear signal for a dynamic transition path and ambitious RES targets will translate into a predictable regulatory environment, which will increase investor confidence. Providing a sense of stability and security will increase the level of private investment that is needed to build a RES-based system.

10. The challenge of transforming and ensuring EU energy security has a transnational and cross-border dimension. Consequently, Poland and other Member States should jointly contribute to building a new energy system, in line with the objectives of green strategic autonomy.

The energy system in the EU will only be as resilient as its weakest link. Hence, it is necessary to think about strengthening it across the European Union and integrating national energy systems. Cross-border connections are among the key measures to ensure energy security in the EU. In this way, green strategic autonomy will have an unambiguously European dimension, and energy policy will become a driving force for further integration within the EU, which Poland will benefit from.

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