



A RESILIENCE TURBOCHARGER

How to make Ukraine a pillar of European energy security

by
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Since the start of Russia's full-scale invasion in 2022, Ukraine has [lost half of its energy infrastructure](#), accounting for [70% of pre-war capacity](#). While tragic and devastating, the war has also turned Ukraine into a testing ground for building and operating a truly resilient energy system in wartime, with lessons that are vital for Europe's energy security.

In 2026 Ukraine's energy system has reached a critical juncture. The focus can no longer be on survival alone: the scale of destruction has depleted stocks of spare parts and severely reduced generation capacity. During the winter of 2025–2026, its energy grid was [one strike away](#) from collapse. Emergency measures, including the continued delivery of spare parts and electricity imports, remain vital but can no longer provide a lasting solution. Looking ahead to Ukraine's accession to the European Energy

Union in 2027, Kyiv and Brussels have a shared opportunity to build a common approach to energy security that strengthens the long-term resilience of Ukraine's energy system.

Idea

For Ukraine, sustaining energy resilience in the ongoing war is essential to its survival as a functioning state. It is also one of the most important contributions it can make to the EU as a future member. Support for Ukraine now, as provided by several EU Member States and Norway among others, thus serves both short- and long-term goals.

Prior to 2022, Ukraine's energy system, designed in the Soviet era with excess capacity and abundant baseload generation, was a major asset for [Europe's energy security architecture](#). The country also boasted plentiful wind and solar resources as well as gas reserves and storage which, together with the country's size, made Ukraine an energy powerhouse. While excess grid capacity has suffered under relentless Russian strikes, the other fundamentals, including a highly-skilled workforce and understanding of system resilience, have only grown stronger. Ukraine has developed unrivalled wartime expertise in maintaining its energy system in the face of sustained attack, including rapid repair capabilities, stockpiling of vital equipment and a deep understanding of Russian tactics. The war

has also fostered a strong public awareness of the [strategic importance of energy security](#).

Impetus

What both the EU and Ukraine need at this point in time is a long-term vision for financing, planning and resilience to strengthen European energy security in the face of a common threat.

Ukraine, in particular, needs sustained investment and long-term financial commitments to rebuild its energy infrastructure. The country has already demonstrated that it can [attract private capital](#) into its energy sector even during wartime. For example, the [Tyligulska wind park](#), located just 100 km from the frontline, added [114 MW of capacity in 2025](#). A coordinated strategy involving the EU and partner states could help accelerate such investments. Although individual EU Member States have offered [critical support](#), notably through the Energy Community's [Ukraine Support Fund](#), their efforts have so far focused on immediate survival rather than long-term resilience and prosperity.

The EU and its European allies should prioritise investment in Ukraine's energy system, especially in clean generation, distributed storage and measures to increase electricity demand. In many cases, these are commercially profitable investments that also deliver long-term strategic benefits to European energy security.

2026 is the moment to turbocharge Ukraine's hard-won lessons in energy resilience – not only to ensure the country's survival, but also to secure its long-term prosperity and its place at the heart of Europe's energy security architecture. The deployment of renewable generation and distributed local energy systems, especially in major cities, has already begun to reduce reliance on the centralised grid infrastructure that made Ukraine's energy system so vulnerable in the first place. Paradoxically, the destruction of much of Ukraine's thermal generation capacity has accelerated the transition towards a cleaner and more resilient energy system. It has also begun to weaken the influence of entrenched energy interests in the country, long associated with corruption. This creates a perfect opportunity to accelerate the transition to a clean and resilient energy system that brings Ukraine closer to the EU while strengthening its ability to withstand

Russia's ongoing war of aggression. Here, immediate needs and long-term strategic interests are closely aligned.

Planning is thus equally important. As the EU moves towards more coordinated planning of its energy infrastructure, it should involve Ukraine from the outset. The country has an important role to play in Europe's future energy security. Energy sector reform and integration into the European integration market should therefore proceed hand-in-hand.

Instruments

Financing must extend its focus beyond meeting Ukraine's immediate survival needs to enabling its long-term recovery and prosperity, including the electrification of its economy. Most bilateral assistance so far has focused on maintenance, not long-term resilience. For example, by May 2026 the Ukraine energy support fund had raised almost [€2 billion](#) from European and other donors. Most of this money goes towards emergency repairs and sourcing equipment to maintain the existing grid. However, the scale of this funding is not yet matched by investment in new generating capacity, even when major reconstruction projects financed by the [EIB](#), [NEFCO](#), [EBRD](#), [World Bank](#) and other donor funds are taken into account.

On electrification, Ukraine should be supported in line with the EU's own priorities, including the Electrification Action Plan and the Clean Industrial Deal. This would ensure that reconstruction is aligned with the transition to an electrified economy, particularly in industry. Funding should not focus solely on infrastructure and generation, but also on storage, distributed demand and the electrification of heating and transport.

On planning, the lessons from Ukraine, particularly the vulnerabilities of centralised energy infrastructure, should be fully integrated into the EU's long-term grid planning, including the [EU's Energy Highways initiative](#). While the TEN-E Regulation provides for projects of mutual interest (PMIs), allowing Ukraine to participate as a member of the energy community, this framework is not designed to support either the holistic reconstruction of Ukraine's energy system or its integration into the EU's energy market. Given its considerable natural resources,

Ukraine should be treated as a central pillar of energy security in Central and Eastern Europe, rather than as simply a partner.

Finally, the EU should maintain and deepen its structured dialogue with Ukraine on energy system resilience and renewable energy integration. Ukraine has much to contribute, but also a lot to learn. While this already takes place to some extent within the European Network of Transmission System Operators (ENTSO-E) the debate must broaden from recommendations drawn from lessons learned and best practices towards developing binding guidelines inscribed in EU regulations. These will eventually apply also to Ukraine as part of the EU *acquis*.