

After a solar photovoltaic (PV) plant in Merefa, Ukraine, suffered a Russian missile strike but remained operational, Monolith LLC, a local renewable energy developer, approached Net Zero World about converting the existing PV system into a microgrid to provide community resilience against grid outages. NREL used the REopt model to envision the



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To successfully unlock the potential within Ukraine's renewable energy sector, several key questions should be addressed: How can renewable energy help meet Ukraine's future energy needs? What projects should be prioritized in the near and medium term to enable the effective integration of renewables in the power sector?

We show that a decarbonised energy supply in Ukraine is technically feasible and economically viable. With electrified heat and transport sectors, the combination of renewable generation and energy storage technologies can supply electricity at a system cost of below 90 EUR MWh ???1, including generation, storage, and transmission. The

Russia's war in Ukraine has altered global energy markets, accelerating the green transition in wealthy parts of Europe and forcing poorer countries to fall back on dirtier fuels like coal.







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NREL is working with USAID, the Ministry of Energy of Ukraine, and the Ministry for Communities, Territories, and Infrastructure Development of Ukraine to design a microgrid pilot project that will demonstrate how a solar photovoltaic (PV)-plus-storage system could enhance resilience under the present conditions in Ukraine.

Ukraine has made significant renewable energy progress in recent years. RES development is one of the government's priorities because of its potential to reduce natural gas dependency and enhance energy security. which will also contribute to energy security. Carbon capture and storage (CCS) has significant potential in Ukraine. Coal has

Ukraine's Energy Strategy until 2050 outlines investment opportunities amounting to US\$383 billion, with its focus on clean energy production and system resilience. Private sector involvement is being encouraged in renewable energy projects, smart grids and energy-efficient technologies.

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6 ? Ukraine's potential as a huge source of renewable energy makes this battle even more important. With the confidence of international investors and partners behind us, Ukraine can become a green energy hub for Europe as President Zelensky has suggested. In a world where renewable energy capacity grew by 50% globally last year, Ukraine has the space, skills, ???

By embracing energy efficiency improvements and electrification, Ukraine could dampen demand growth and achieve a significant decrease in energy intensity, of up to 60% by 2050. Decarbonization efforts ???











By embracing energy efficiency improvements and electrification, Ukraine could dampen demand growth and achieve a significant decrease in energy intensity, of up to 60% by 2050. Decarbonization efforts across all sectors would be essential in ???