Енергетичне Партнерство
Energy Partnership
Ukraine – Germany

UKRAINE WIND ENERGY MARKET ANALYSIS

In November 2024, Ukraine reaffirmed its commitment to wind energy, announcing over 800 MW in new projects for 2025 to add to the steady increase in renewable growth. The country has strong potential for wind energy and has set ambitious renewable energy goals for 2030 in its national plans. With growing international investment in resilient local energy systems during the war, Ukraine stands out as a promising place to invest in wind power if risks related to cost and the ongoing war are mitigated.

Market Overview & Growth Trends (2020–2024)

Prior to the full-scale invasion in 2022, Ukraine had over 2 GW of installed wind capacity.[1] Wind energy accounted for over 20% in its renewable energy mix, second only to solar power, with 34 wind parks and 699 turbines (mostly Nordex) in operation.[2] Today, only a quarter of that capacity remains operational outside the occupied territories.[3]

Despite challenges posed by the war, Ukraine has managed to build 230 MW of new wind capacity and has another 58 projects at various stages of completion, amounting to a total capacity of over 7 GW,[4] with 20 MW installed in 2024. The recent commissioning of 13 large wind turbines in 2024 [5] points to a clear acceleration in progress, with further expansion contingent on regulatory changes introduced in early 2025, Ukraine's commitments to expand renewable energy set out in documents such as the National Energy and Climate Plan for 2030 and the National Renewable Energy Action Plan, and mechanisms to handle risks associated with prices and the war.

2025 Outlook & Expansion Potential

Growth pathways were also laid out in Ukraine's newly published climate and energy targets in 2024. An estimated budget of $20 billion is required to reach the targets of 6.1 GW onshore and 0.1 GW offshore installed wind capacity by 2030 outlined in the National Renewable Energy Action Plan. Tentative government plans foresee roughly 250 MW awarded in wind energy auctions annually until 2029, with a maximum bid price of €0.08 per kWh in 2025.

Ukraine's technical wind energy potential is estimated at over 680 GW [6] (different modelling results range from 140 GW to 688 GW), with the possibility of adding 2 to 3 GW annually under favourable conditions.

Industry experts anticipate a surge in wind farm commissioning as investor confidence improves and financial instruments for risk mitigation become available. Many agree that wind power could play an even larger role in the Ukrainian energy mix beyond the 6.1 GW target, especially if market mechanisms can ensure a stable offtaker situation to close the persistent supply gap.

Due to a lack of absorption capacity and manoeuvrable generation, both damaged through Russian missile and drone attacks, Ukraine's inflexible electricity system struggles to provide stable electricity supply, causing curtailment issues. Market outlooks project that the current supply gap for electricity will remain in the medium term, [4] indicating an urgent need to restore and invest in decentralised power generation as well as in the grid. Wind power plays a significant role in the growing decentralisation of Ukraine's energy system, and in times of significant stress on the national grid infrastructure, it could strengthen regional energy resilience.

Electricity Market Design & Regulatory Challenges

Ukraine's electricity market, despite being partially liberalised, remains highly regulated. Consumer price controls, cross-subsidisation, inefficient tariffs and other regulations have distorted market dynamics.[7] Renewable energy policy has been slowly adapting since the boom in renewables after the implementation of the green feed-in tariff (FIT) in 2008, but Ukraine is still far from being a fully liquid energy market. In 2022, the government started transitioning from FITs to feed-in premiums and competitive auctions to improve cost efficiency and encourage market-driven pricing, although pilot auctions have yet to be successful.

Ukraine is in the process of further streamlining permitting, land allocation and grid connection processes, aiming to unlock private capital. The most noteworthy changes in energy regulation for investors are related to the permitting and profitability of renewable energy projects. In January 2025, Ukraine's parliament passed legislation introducing new grid connection booking requirements for wind power projects above 20 MW, allowing municipalities to further incentivise renewable energy deployment and making state and municipal land available to be leased to renewable energy producers, with the property owner under an obligation to offtake the electricity generated.[8] These recent changes highlight the ongoing shift towards improved renewable energy regulation and decentralisation to the municipal level.

International renewable energy developers tend to rely on local legal teams that consistently monitor the rapidly changing policy landscape in Ukraine to ensure smooth project progress.[4]

Reports on the details of Ukraine's energy policy landscape and the necessary reforms to look out for are linked below.

- UWEA: Legislation Fostering Wing Energy Development in Ukraine
- Renewable energy in Ukraine: Current Institutional, Environmental, Investment Barriers and Prospects
- Empowering Ukraine Through a Decentralised Electricity System – International Energy Agency analysis
- Dentons - Latest Legislative Updates for RES in Ukraine

Market Risks & Mitigation Strategies

Beyond regulatory reforms, two main factors needed for long-term investment security are state-backed investment guarantees covering political and war-related risks and security on the offtake side for renewable energy producers.[4] The Ukrainian state-owned Guaranteed Buyer (GB) has accumulated massive debt and is struggling to pay feed-in tariffs guaranteed until 2030. However, a roadmap to repay legacy debt has been agreed with investors, and payout rates are improving. A decision on how to structurally address debt accumulation, for example, by separating the renewable energy surcharge from the transmission tariff, has yet to be made.

Ukraine's ability to 'build back better' hinges on **attracting private investment.** It has attracted many foreign investors to its renewables sector in the past and has formed strong bilateral relations with many European partner countries, such as Germany, Norway, Denmark and the Netherlands, both at the government and business (association) level.

Around €2.7 billion from the Ukraine Facility, a €50 billion European Commission initiative to support Ukraine, has been allocated to support investment projects in Ukraine via **guarantees.** Funds are channelled through international financial institutions, such as the European Bank for Reconstruction and Development (EBRD), the International Finance Corporation (IFC) and KfW.[9] The German Government (via Euler Hermes and PricewaterhouseCoopers), the Export and Investment Fund of Denmark, the Polish Export Credit Agency and the World Bank all offer some sort of donor **export credit and investment guarantees.** EBRD provides war risk insurance for transport. **Foreign aid,** in particular, **grants,** has also been key to lowering investment risks. An electricity price guarantee fund model has been proposed in a combined effort to address the offtaker risk by several market actors, including the UWEA, the European-Ukrainian Energy Agency and the Green Deal Ukraine projects.

Wind Project Development Steps & Announced Projects

Permitting processes and legal planning procedures have mostly remained the same despite the ongoing conflict. Experts say that processes for land approval and grid connection should be expedited or simplified, especially during martial law.

Supply chains have mainly been restored since the start of the war, now focused more towards the West, and land routes are operating smoothly for the delivery of parts. However, wartime mobilisation has reduced the number of qualified technical personnel available to plan, install and maintain both household and utility-scale renewable energy systems, which may pose a significant barrier to accelerating wind park deployment.

The latest regulatory updates now enable **grid capacity booking** for wind power plant projects of 20 MW or more, allowing developers to enter into capacity booking agreements with the transmission system operator and submit applications for grid connection within two years.[9]

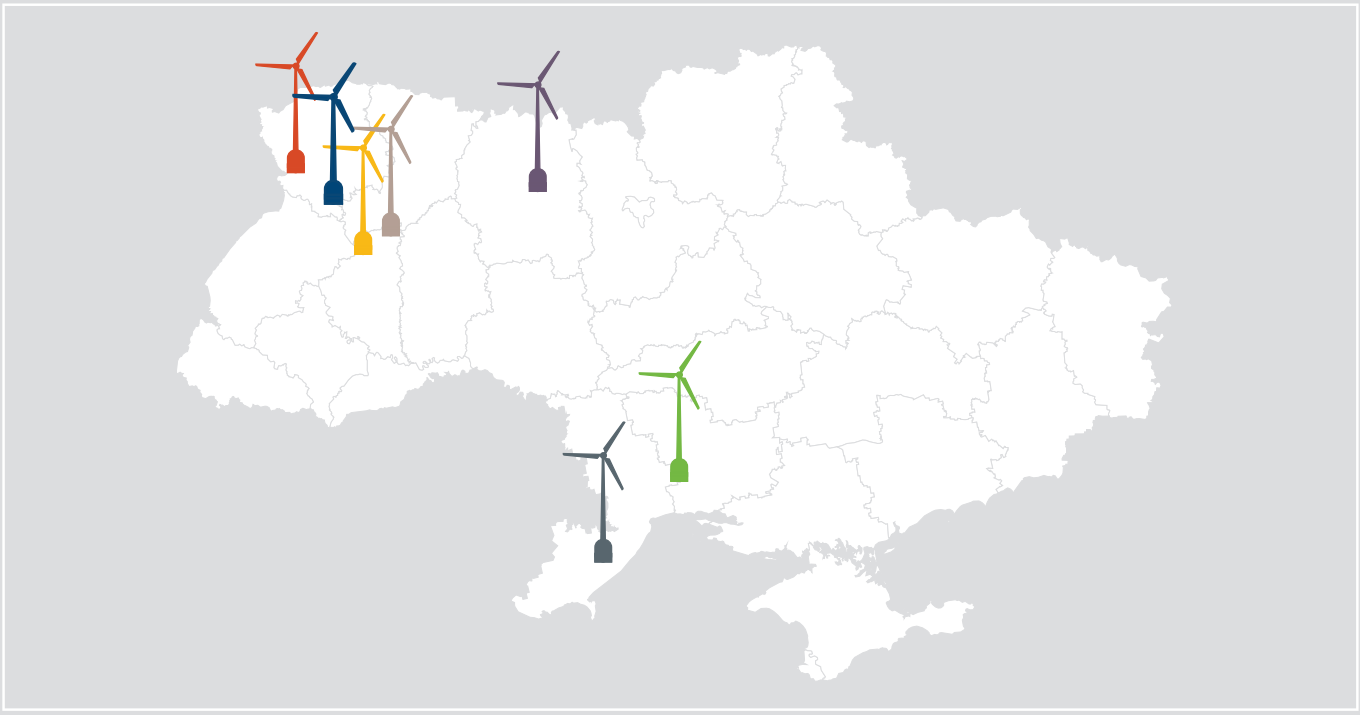
The technical conditions for **grid connection** to the transmission system are valid for the time necessary to construct the power plant, up to a maximum of three years. Once the design documentation has been approved, the grid connection conditions can be extended for up to six years. A grid connection fee of €10 per kW of requested capacity is charged, 50% of which must be paid within 30 days of obtaining the permit and the remaining 50% within 12 months of receiving the technical conditions. There is a six-month termination window for the grid connection agreement. [9]

Auction winners must enter into physical power purchase agreements with GB, with compensation provided through a contract for difference mechanism. Under this scheme, if the market selling price falls below the auction strike price, GB compensates the difference; if the selling price exceeds the strike price, the auction winner pays the difference to GB. As of April 2025, no wind power auctions have been successfully conducted.

Financial power purchase agreements are also possible in the Ukrainian market, although they are not yet widely used due to a lack of confidence in long-term reliability resulting from war risks and the absence of successful examples.

Wind Project Pipeline – Announced Projects

The UWEA has declared 2025 the 'year for wind' in Ukraine, with many recently announced projects expected to move forward. A selection of new projects is shown below.



Company	Capacity (MW)	Investment	Announcement Date	Planned Completion
Notus Energy	300MW		June 2024	TBD
Wind Power GSI Volyn	147 MW	€261 million	Dec 2024	TBD
Elementum Energy	200 MW	€300 million	Dec 2024	2026–2027
Vestas	384 MW	€411,6 million	Jan 2025	Q4 2026
Atlas Global Energy	100–200 MW	TBD	Mar 2025	TBD
Galnaftogaz	147MW	€157 million (intl. investment) Total cost: €225 million		TBD
Emergy AS	N/A	€2,51 million	TBD	TBD

For further business-related questions, please feel free to reach out to the German Chamber of Commerce in Kyiv – contact person Andrii Chubyk: andrii.chubyk@ukraine.ahk.de.

[1] UkraineInvest – Renewable Energy (2025)

[2] Ukrainian Wind Energy Association (UWEA)

[3] GIZ. Fresh Wind for the Energy Transition in Ukraine – state of the art and European experiences (2025)

[4] O. Lysiuk. During the full-scale war in Ukraine, three wind power plants with a capacity of almost 230 MW have been built, and another 58 projects are at various stages of implementation. Ukraine Business News (UBN) (2024)

[5] Ukrinform. Thirteen large wind turbines commissioned in Ukraine last year (2025)

[6] Renewables4Ukraine. Wind Power

[7] C. Hart, T. Vatman and T. Gebhardt. Empowering Ukraine Through a Decentralised Electricity System: A roadmap for Ukraine's increased use of distributed energy resources towards 2030 (2024)

[8] Dentons. Ukrainian parliament approves revolutionary law changing grid connection of renewables and certain other related key rules (2025)

[9] European Commission. Ukraine Facility

Imprint

Publisher: Deutsch-Ukrainische Energiepartnerschaft
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Dag-Hammarskjöld-Weg 1-5
65760 Eschborn

The German-Ukrainian Energy Partnership | Energy Partnership Ukraine

ep.ukraine@giz.de

Authors: Cheryl White, Helen Naser, Oleksandra Zaika, Theo Kraus

Concept & design: Denys Mykhailets, Hanna Aksenova

Last update: 07/2025

Енергетичне Партнерство
Energy Partnership
Ukraine – Germany

Ministry of Energy of Ukraine

Federal Ministry for Economic Affairs and Energy

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH