

National Renewable Energy Action Plan for Ukraine

Introduction

1. Current state of the industry

2. Auctions for the sale of construction quotas

3. Renewable energy development

B

On 13 August 2024, the Ukrainian government approved the National Renewable Energy Action Plan until 2030 (the "National Plan"). This document was developed taking into account the current state of Ukraine's energy sector, Ukraine's commitments to the EU and the country's commitment to attract local and foreign investments in this area.

Implementation of the National Plan in full will allow, among other things, to:

- increase the share of energy produced from renewable sources in the structure of Ukraine's total final energy consumption in 2030 to at least 27%;
- ensure the construction of 100 MW of offshore wind farms;
- ensure the implementation of the EU legislation on renewable energy sources;
- facilitate the attraction of investments (including foreign ones), technologies and intellectual property objects to the development of the field of renewable energy sources and alternative fuels.

The National Plan is a general strategic document envisaging the strategic direction of the industry development. However, in order to achieve its goal, it is necessary to continuously work on the implementation of EU norms, develop new regulations and amend the old ones.

At present, Ukraine has plenty of unresolved problems in the electricity market (including unregulated tariffs, overall debt of market participants to each other, unequal debt settlement mechanisms, etc.), which have been further aggravated by the military actions (destruction of or damage to generation and distribution systems, insufficient manoeuvring capacities, etc.).

Therefore, whether the National Plan will be of interest to foreign investors depends on the actual actions of the regulator and the Ukrainian government. Specifically, it depends on what regulations will be drawn up and how these will be drafted, what requirements will be set, and how the regulatory framework will be developing in general.

It should also be noted that the implementation of the National Plan directly depends on the intensity of military operations and the ability to guarantee investors' rights and insure their risks. In addition, the development of Ukraine's energy system requires ensuring the personnel safety, protection of distribution systems, and availability of balancing capacities.

The National Plan looks quite promising in terms of its overall strategy and direction, but the development of renewable energy depends primarily on the system's readiness to accommodate increased generation. Therefore, it is necessary to monitor the further development and elaboration of the regulatory framework and the possibility of the National Plan's implementation.

Also, the National Plan can only be implemented if the timeframe set out in the calculations used in its development is adhered to. However, in the current situation in Ukraine, when long-term forecasting is not possible, it is extremely difficult to guarantee that any global plans will be implemented.

1. Current state of the industry

The full-scale armed aggression has significantly affected the functioning of the renewable energy sector. As of early 2022, the total installed capacity of renewable electricity facilities under the feed-in tariff exceeded 9.5 GW (10.1 GW including facilities occupied by 24 February 2022), and the volume of investments in the sector exceeded USD 12 billion.

As a result of the Russian invasion in 2022, about 25% of the installed renewable energy capacity was occupied. The situation with wind farms is particularly dire: 75% of them, or about 1.25 GW, are located in the occupied territories of Kherson and Zaporizhzhia regions.

Also, about 14% of solar power plants are under occupation (over 0.6 GW). Even so, the share of renewable energy sources remains significant: in 2023, about 10% of electricity was generated from solar and wind energy. Taking into account the volume of electricity generated by large hydroelectric power plants, this share was slightly over 20%.

In total, over 650 MW of new renewable energy capacities were commissioned in Ukraine in 2022-2023, including:

- 371 MW of solar power plants (of which 287 MW were installed by private households);
- 227 MW – wind power plants;
- 50 MW – bioenergy facilities (biomass and biogas);
- 1 MW – small hydropower plants.

Over the past 2 years, Ukraine has introduced a market-based mechanism to stimulate the development of renewable energy. In particular, instead of the fixed "green" tariff payment model (feed-in tariff model), the following were introduced:

- a feed-in premium model for the existing producers operating under the "green" tariff and
- a contract-for-difference model for future auction winners.

Under the feed-in premium and contract-for-difference models, renewable energy producers can act as direct market participants. In doing so, they can sell electricity on their own, optimising their income from production and reducing their imbalances. At the same time, such producers are entitled to receive a premium from the Guaranteed Buyer in the form of the difference between the

"green" tariff or auction price and the estimated market price.

2. Auctions for the sale of construction quotas

The idea of stimulating renewable energy development through auctions for the sale of quotas for the construction of renewable energy facilities in Ukraine was developed back in 2019. However, implementation of this support model has faced challenges due to the need for additional regulatory framework for such auctions, as well as the mismatch between the issued technical conditions for connection, the actual capacity of the grid, and the need to provide new technical conditions for connection to auction winners.

Moreover, the construction of renewable energy facilities through auctions for the sale of quotas was actually aimed not at supporting the development of renewable energy, but at limiting such development and reducing the cost of "green" tariff payments.

In any case, payments to renewable electricity producers were to be made through the Guaranteed Buyer, which was established specifically for the purpose of centralised procurement and payment for green energy.

Alternatively, renewable energy producers can participate independently in the electricity market without the Guaranteed Buyer's involvement. However, in this case, producers immediately face a number of problems:

- the price on the electricity market is usually lower than the price under the "green" tariff, except for power plants set to receive the "green" tariff after 2022 (when it became comparable to the market price);
- price caps in the electricity market, which are still in force;
- the need for self-balancing. An agreement with the Guaranteed Buyer also provides an opportunity to participate in the Guaranteed Buyer's balancing group. And independent participation in the market requires either self-balancing capacities or joining another balancing group in the market.

Therefore, it can be concluded that the Guaranteed Buyer is not an ideal option, but at least a fairly predictable one.

During martial law in Ukraine, problems with Guaranteed Buyer payments escalated due to an unresolved debt repayment mechanism, insufficient funds, and general market problems due to grid damage.

Therefore, in 2023, a decision was made to allow "green" electricity producers to temporarily leave the Guaranteed Buyer's balancing group and to participate in the market. Previously, if a participant left the balancing group, it could not return and would lose the "green" tariff.

3. Renewable energy development in Ukraine

The following options are being considered to further develop alternative energy and provide guarantees to foreign investors.

- 1) Holding auctions for the sale of quotas for the construction of alternative energy facilities

In the case of construction as a result of an auction, the producer of "green" electricity is entitled to state support (in fact, to a "green" tariff, but at the price offered by the producer at the auction).

Payments will be made by the Guaranteed Buyer (or another identical structure, at present, it is the Guaranteed Buyer). The problems with payments are not going to be resolved, but if the regulator and the Ukrainian government adopt a number of regulations that are currently being developed together with market participants, the situation should improve. In addition, it cannot be overlooked that the budget is short of funds and that a mechanism needs to be put in place to ensure that the Guaranteed Buyer receives the funds necessary to make payments.

Several mechanisms are currently being considered to ensure that the Guaranteed Buyer is able to fulfil its obligations, including payments to renewable electricity producers. One such mechanism is the right to export electricity generated from renewable energy sources.

However, these mechanisms can only be implemented after the situation in Ukraine's energy system stabilises.

2) Providing producers with certificates of origin

Such certificates should be issued in line with European standards and will allow producers to both export electricity to the EU as "green" and to supply such energy to a Ukrainian consumer (an industrial enterprise), who will consequently obtain the right to label the goods produced as "carbon-free" with the benefits of such a status under the CBAM (Carbon Border Adjustment Mechanism).

3) Feed-in premium support model

Under this model, the producer has the right to sell energy on the market independently and receive a surcharge from the Guaranteed Buyer in the amount of the difference between the price of electricity sold and the "green" tariff.

This will reduce administrative and general expenses of the Guaranteed Buyer and provide producers with more stable payments.