The Recovery of Ukraine **Energy Sector: A Call for Support and Collaboration** with Municipalities















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The post-war sustainable recovery of Ukraine has started. It is time for international partners to cooperate with Ukrainian municipalities and explore various models to finance clean energy projects.

This brief outlines the current state of play in the field of green energy recovery in Ukraine. It provides recommendations to foreign governments, international partners, and national authorities to partner with local communities and rebuild the energy sector. The main objective is to boost local communities' energy resilience by providing loans, equipment rental, leasing, grants and co-financial mechanisms.

Reconstruction has already begun and cities are ready to rebuild green

Ukrainian municipalities have not waited for the end of the war to rebuild and provide water, heat, electricity, transport, medical care and other vital services to the population. The recovery is at an active stage of implementation and the main work is happening at the municipal level.

The energy sector is of particular importance and offers a set of advantages to start with the immediate reconstruction: projects in renewable energy sources and energy efficiency for municipal sector infrastructure are already bankable. They help to increase resilience of communities in war time during power outages and lead to decentralisation. Despite all challenges induced by the war, such as the migration of inhabitants and work forces, as well as the lack of resources, municipalities are conscious of the necessity to "build back better". They know that they have to use sustainable approaches and to modernise their infrastructure.

The rise of decentralised renewables for reconstruction

Ukrainian communities have endured two challenging heating seasons due to the impact of Russian attacks, which led to widespread destruction and extended power outages. March-April 2024 saw the new phase of escalation with Russia destroying more than 80% of Ukraine's thermal generation, which has already resulted in new electricity cut-offs throughout the country in the spring, previewing, perhaps, the most difficult winter in Ukraine's history. This period has underscored the importance of renewable energy sources (RES) in ensuring the continued operation of critical infrastructure such as hospitals and water supply.

Despite the ongoing war, Ukrainian environmental NGOs such as Ecoclub, Energy Act for Ukraine, RePower Ukraine, Ecoaction, and Greenpeace have successfully partnered with local communities and various stakeholders to install solar power plants, demonstrating the feasibility and attractiveness of renewable energy projects in Ukraine.

In 2022, a <u>study</u> conducted by Ecoaction demonstrated that more than 80% of respondents (to the study) agreed that 'Ukraine should reduce the use of fossil fuels (coal, oil and natural gas) as much as possible and increase the production of electricity from renewable energy sources.

Renewable energy projects have proven financially viable, with solar power plants at hospitals and water utilities expected to recoup their investment within four to seven years. On-grid solar power stations represent the most cost-effective option in terms of installed capacity cost. They ensure the offset of a portion of the facility's consumption. The greatest economic benefit can be achieved under the condition that the solar power station's generation does not exceed the facility's own consumption at any given moment.

However, if system reliability is the primary concern, preference should be given to hybrid stations with storage. These types of stations offer operational flexibility in both grid-connected and autonomous modes, providing effective demand side management and reliability, especially valuable during power outages.

According to a new <u>study</u> published by Ecoclub the following types of projects should be prioritised:

- installation of a self-consumption rooftop solar power plant in hospitals, equipped with a hybrid inverter with backup power capability;
- installation of solar power plants at water utility pumping stations and wastewater treatment facilities, equipped with hybrid inverters and backup capabilities (taking into account possible modernisation or replacement of pumping equipment);
- installation of solar power plants at sewage pumping stations with hybrid inverters and backup capabilities (taking into account possible modernisation or replacement of pumping equipment).

These projects can be implemented within a 6-12 month timeframe, including development and approval of project documentation.

To be able to implement renewable energy projects, municipalities need affordable financial mechanisms, support in the form of technical assistance and reservation from military service of personnel involved in the implementation of such types of projects.

Challenges and solutions for municipalities

Some of the main obstacles to RES installations are:

- · insufficient local budget funds,
- need for substantial upfront investments,
- fear of violating regulatory requirements,
- · low awareness among local decision-makers,
- lack of staff and professional project managers in the RES sector in general and in local self-government bodies in particular.

To foster the development of RES in Ukrainian municipalities, it is crucial to establish an enabling environment that provides municipalities with access to financial mechanisms, and includes capacity-building programmes about sustainable energy resources. This environment should also involve standardised documentation packages, showcase successful cases of community recovery exemples and attract private investments including public-private partnerships in the RES sector.

Foreign governments and the Ukrainian authorities are respectfully urged to support the ongoing decentralisation reform. They should assist Ukrainian communities in their RES development. This includes integrating local government capacity-building efforts on sustainable energy into all green recovery activities and providing support and risk insurance for foreign investors' investments in Ukraine.

Recommendations

To the G7 Coordination Platform and IFIs:

- Establish risk insurance mechanisms. These mechanisms should include insurance of risks related to (1) inflation, (2) changes in currency rates, (3) changes in energy pricing, (4) war-related physical damages to energy facilities. Both sides should be insured municipalities and lenders/donors.
- Create financial instrument(s) that Ukrainian municipalities will have direct
 access to without the need to obtain approval from the national authorities.
 Direct financing of renewable projects in municipalities by IFIs and donors is
 considered the most attractive option in the current circumstances. It is also
 recommended to consider the possibility of combining different sources of
 financing, in particular, international loans with grants, or with municipalities'
 own funds.
- Create low-interest loans in Hryvnia (Ukrainian currency, UAH) for municipalities under a fixed interest rate, swift administrative procedures, and technical assistance or grant component to implement reconstruction and modernisation projects during the war. The financing should be linked to the targets on strengthening energy resilience, sustainability, greenhouse gas emissions reduction etc. As an option: establishment of a credit line in a state bank dedicated to financing renewable energy projects in municipalities such as the successful credit lines of the state-owned Ukrgasbank financing energy efficiency projects in the residential sector.

- Ensure prompt and efficient decision-making process to support municipalities. The time between the project application and its approval should be reduced from years to months. Technical assistance should be provided to municipalities for project preparation.
- Scale down loans available to municipalities, as not all municipalities have the capacities to absorb large sums of money. Support of collaborative projects for several small towns and support to local project offices should be considered.
- Support local or regional project offices, such as regional development agencies, recovery offices, or regional NGOs with experience in project support to municipalities.

To governments willing to support Ukraine's green reconstruction:

- Support of establishment of low-interest loan programmes for Ukrainian municipalities. Explore different financing models for RES, such as loans, equipment rental, leasing, and co-financing.
- Create capacity-building programme(s) for Ukrainian municipalities in the field of renewable energy and energy efficiency that could be linked to financial support instruments.
- Appoint an envoy/ambassador on Ukraine's Reconstruction (such as in Czechia and Slovakia) who could establish contacts with regional and municipal authorities, also keeping in mind the EU's and Ukrainian green agendas.
- Establish direct cooperation with municipalities. Consider cooperation options on reconstruction between a country and a Ukrainian city or region (such as <u>Denmark - Mykolaiv cooperation</u>), and city-to-city cooperation.
- Ensure civil society participation through new projects and programmes empowering active involvement, implementation and leadership by Ukrainian stakeholders. Direct support of local stakeholders could help ensure effective use of international aid.

To the Ukrainian government:

- Establish a supportive framework for municipalities to design and implement renewable and energy efficiency projects during the war. The framework should include legal, financial and institutional aspects, and support establishment of connections between municipalities and foreign donors and institutions. Government agencies should provide support to municipalities in the form of training, resources, and guidance to help them improve their capacity to absorb funds. They could also review and streamline the funding application process to make it easier for municipalities to access funds.
- It is important to create clear and transparent mechanisms for municipalities
 to have direct access to financial resources from international financial institutions, donors and foreign governments without the involvement of state authorities in the distribution of these resources. Public participation in the selection and monitoring of municipal projects is essential to ensure transparency.

- Provide political risk protection and investment guarantee schemes for new investments into sectors important for <u>Ukraine's Green Hub of Europe</u> ambition, such as production of renewable energy equipment, energy efficient materials, heat pumps etc.
- Ensure civil society's and municipalities' involvement in the green reconstruction of Ukraine programming and implementation.

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