USELF

Ukraine Sustainable Energy Lending Facility

Investment in renewable energy — a step for the future!

European Bank

for Reconstruction and Development

Content

Funded by:

GEF

Project consultants:

FICHTNER

IMEPOWER CONSULTING
Investments, privatisation, consulting, finance

DEWEY & LEBOEUF

Introduction

Did you know that Ukraine imports a significant portion of the fuels to cover its primary energy needs while its own generating assets are ageing and highly polluting?

For Ukraine, the need to improve energy security and reduce the environmental impact of its energy sector is acute. Renewable energy can play a key role in addressing both these issues.

Although it has great potential for renewable energies, Ukraine has as yet hardly exploited this. The main reason for this low level of activity is that, until now, the legislative and regulatory frameworks have not been adequate to allow implementation of the numerous potentially feasible projects in this area.

In order to encourage businesses to pursue sustainable energy projects, the European Bank for Reconstruction and Development (EBRD) has launched the Ukraine Sustainable Energy Lending Facility (USELF). To promote projects that are often challenging to finance and implement, the Facility not only provides tailor-made financing, but also assistance by technical consultants for businesses and local authorities.

USELF is part of the EBRD's Sustainable Energy Initiative (SEI) addressing the challenges of climate change and energy efficiency. Since the launch of the SEI in 2006, the EBRD is at the forefront in helping countries from Central Europe to Central Asia to secure sustainable energy supplies, and finance the efficient use of energy that will cut demand and imports, reduce pollution and mitigate the effects of climate change.

To date, EBRD has invested €4.7 billion under the SEI framework through 269 projects in 27 countries with a total project value of €23.5 billion. The total reduction in carbon emissions achieved by these projects is estimated at 27 million tonnes per annum.

We invite you to learn more about USELF from this brochure. You can also visit our official website at **www.uself.com.ua.** For any further questions regarding the facility, please contact the USELF team: we will be happy to assist you.

About USELF

The Ukraine Sustainable Energy Lending Facility (USELF) is an investment facility of up to €50 million established by the European Bank for Reconstruction and Development (EBRD) for fostering renewable energy projects in Ukraine. In addition, the Clean Technology Fund (part of Climate Investment Funds) supports the Facility with €20 million.

The Facility provides debt finance as well as development support to projects meeting commercial, technical and environmental eligibility criteria.

USELF is structured to provide financing directly from the EBRD for small and medium projects with a simplified and rapid approval process, so reducing transaction costs.

Target projects include all forms of power generation from renewable energy sources, including hydro, wind, biomass, biogas and solar. Biomass and input for biogas production would come from sustainable sources and / or organic waste. Production and distribution of liquid biofuels are not eligible.

Companies applying for a loan within USELF get a unique opportunity to receive EBRD financing as well as technical assistance from leading international and local experts.

Your advantages

- Loans starting from €1 to €15 million
- Reduced transaction costs
- Longer term limited recourse finance
- Technical assistance free of charge

Investment appraisal

Investment projects are assessed by the EBRD on the basis of information made available by the sponsors, such as feasibility studies and a business plan. Technical consultants undertake a project appraisal and submit to the EBRD a technical, environmental and financial evaluation report of the prospective projects as well as provide on legal and commercial issues support to the companies.

Next steps

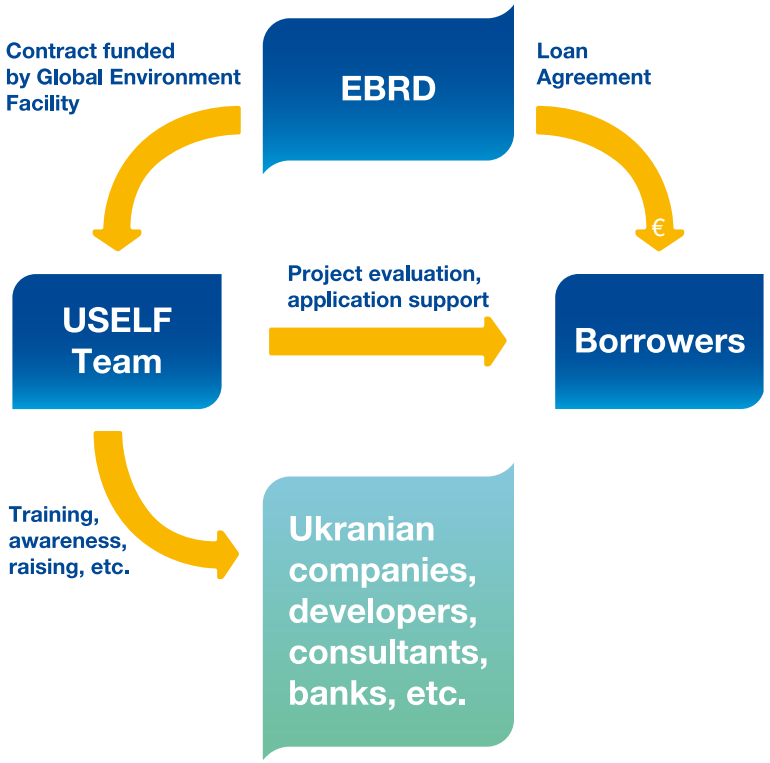
Contact the USELF team with your project idea. Our team will do a quick assessment of general project eligibility and then guide you through the application process.

Organization

To provide as rapid an approval process as possible and so reduce transaction costs, USELF is structured to provide financing directly from the EBRD for projects that exploit renewable energies.

This approach is supported by a simplified facility organization, with the USELF Implementation Team undertaking technical and environmental due diligence as well as training and capacity building for developers, investors, banks and other stake-holders.

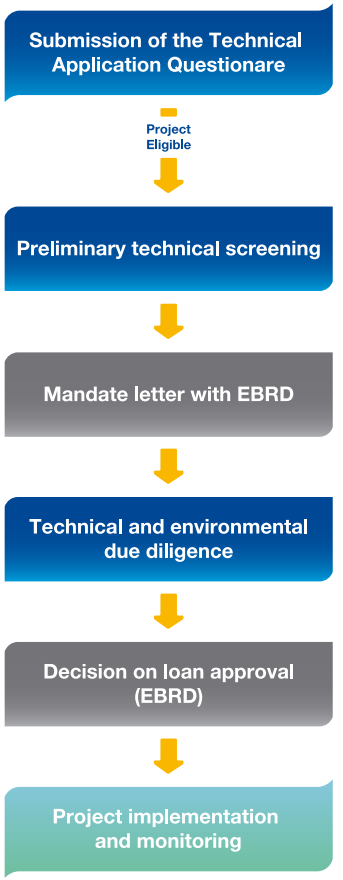
Based on the investigation findings, EBRD takes decisions on loan approval Throughout this time, borrowers have direct access and act in close collaboration with the USELF Implementation Team but also the responsible EBRD officer.



Project Cycle

USELF is structured to provide financing directly from the EBRD, which ensures a simplified and rapid approval process and reduces transaction costs.

Financing is tied to investments that promote the use of renewable energy sources (please see the section Eligibility for more information on eligible projects and technologies). A team of technical and financial experts assists applicants in assessing their projects and preparing the loan application.



Project Cycle

Interested companies should either fill out the Technical Application Questionnaire available from the website of the Programme and submit it via email (**info@uself.com.ua**) or directly contact the Implementation Team. The team makes a preliminary technical screening of the company and its proposed project on the basis of documents provided by the applicant. If eligibility is confirmed, EBRD signs a Mandate Letter with the borrower. Further evaluation follows with technical and environmental due diligence reviews.

Technical and environmental due diligence includes but is not limited to:

- final eligibility check
- technical analysis of the renewable resource, project design, cost estimates, equipment selection, construction and contracting arrangements, grid connection arrangements (if applicable) and other aspects of the technical concept
- commercial analysis to assess the proposed contractual arrangements, including licensing and permitting, land use, grid connection, off-take, operating and maintenance arrangements etc.
- estimation of the greenhouse gas emissions reductions
- implementation schedule of the project
- assessment of borrower's compliance with national standards for environmental protection as well as health & safety
- confirmation of technical eligibility under specific technical criteria (see Eligibility section for details)
- financial and risk analyses.

The Implementation Team will assist the sponsors in making financing applications to the EBRD, although each prospective sponsor will itself be ultimately responsible for preparing its proposal for EBRD financing and liaising on all project-related issues.

Finally, based on the investigations performed within the framework of the technical and environmental due diligence as well as its own calculations, EBRD takes a final decision on the loan conditions and disbursement.

Eligibility

In order to qualify for a USELF loan, the companies and projects have to meet certain institutional, financial, and technical eligibility criteria.

Eligibility criteria for companies

Eligible companies are:

- privately owned, registered and operating in Ukraine
- operating in compliance with national environmental, health and safety legislation
- not engaged in activities prohibited under the EBRD's Exclusion and Referrals list (tobacco, alcohol, etc.).

Further, companies applying for financing under the Facility must meet the following general eligibility criteria:

- for existing businesses: proven track record and sound credit history, including financial reporting according to local accounting standards;Start-up energy projects will be judged on the basis of the customary technical and market due diligence, as well as satisfactory financial projections.
- good reputation and corporate governance practices, including satisfactory results under the Bank's integrity due diligence procedure
- willingness to introduce International Financial Reporting Standards (IFRS) reporting (if not already in place) within a reasonable timeframe from signing the loan agreements (up to two years)
- sound management and organizational structure
- sound financial structure (including sufficient security package for proposed borrowing)
- compliance with the Bank's procurement and environmental requirements.

Eligibility criteria for projects

Eligible projects should:

- replace electricity generated from conventional energy sources
- provide significant greenhouse gas emission reductions
- be based on proven technology
- be financially viable.

Projects shall also comply with applicable EBRD, national and European Union requirements for health & safety.

Project Examples

Project Examples comprise:

- **Projects implemented in other EBRD Sustainable Energy Facilities**
- **Hypothetical sample projects for USELF**

Biomass Project in Oil Extraction Company (hypothetical)

Technical Concept:
A company producing sunflower and other vegetable oils uses the residual husks as fuel for husk boilers, which replace old gas-fired boilers. A combined heat and power (CHP) process is applied. The heat generated is used for internal production process.

Installed capacity, based on available quantity of husk waste of around 10t/h:

■ **power:**	3 MW(el)
■ **heat:**	16 MW(th)

Annual energy output (net):

■ **electricity:**	about 17,500 MWh
■ **heat:**	about 105,000 MWh

Estimated investment volume: EUR 9 million

Financing structure:

■ **EBRD:**	EUR 4.5 million
■ **Clean Technology Fund:**	EUR 1.8 million
■ **Developer's equity:**	EUR 2.7 million

Range of expected project return: 15% - 20% IRR (based on Green Tariff; no value for heat generated)

Important factors for project development:
- own sources of biomass or long-term contract of supply
- equipment supplier with good track record

Biogas Project on Large Animal Farm (hypothetical)

Technical Concept:
A large cattle or pig farm with several ten thousands of animals uses the manure of its animals as feedstock together with vegetable and slaughter waste for biogas generation. The fermenter with a volume of around 7,000 cbm operates at a temperature of 37°C. With a Combined Heat and Power (CHP) unit electricity and heat is generated. Heat is used on the farm for animal breeding, heating of administrative buildings and hot water and in this way substitutes diesel. The by-products of anaerobic digestion are used as fertilizer.

Installed capacity:
- **power:** 1 MW(el)
- **heat:** 1.4 MW(th)

Annual energy output (net):
- **electricity:** about 7,500 MWh
- **heat:** about 4,200 MWh

Estimated investment volume: EUR 3.2 million

Financing structure:
- **EBRD:** EUR 1.6 million
- **Clean Technology Fund:** EUR 0.65 million
- **Developer's equity:** EUR 0.95 million

Range of expected project return: 15% - 20% IRR (based on Green Tariff; no value for heat generated)

Important factors for project development:
- own sources of biomass or vegetable waste
- equipment supplier with good track record

Small Hydropower Plant Dikanc (implemented under WEBSEDFF)

Location: Near Prizren, Kosovo

Technical Concept:
An existing hydropower plant is rehabilitated with two Francis turbines and the plant's capacity is expanded with an additional turbine. Works comprise a Tyrolean weir intake with a discharge of 3.9 m³/s, a diversion channel (length: 810 m) and a glass reinforced plastic penstock with a length of 350 m and a diameter of 1,300 mm.

Installed capacity:
- **rehabilitated plant:** 1.1 MW
- **new unit for expansion:** 2.7 MW

Annual energy output (net):
- **rehabilitated plant:** 2,660 MWh
- **new unit for expansion:** 10,400 MWh

Investment volume:
- **rehabilitation:** EUR 0.35 million
- **new unit:** EUR 2.2 million

Expected project return: 12% - 14% IRR

Important factors for project development:
- sound topographical survey
- comprehensive geological and geotechnical investigations
- hydrological data analysis

Wind Farm (hypothetical)

Installed capacity: (4 turbines x 2.5 MW)	10 MW
Annual electricity generation:	27,000 MWh 3080 full load operation hours
Estimated investment volume:	EUR 16 million
Financing structure:	
■ **EBRD:**	EUR 8.0 million
■ **Clean Technology Fund:**	EUR 3.2 million
■ **Developer's equity:**	EUR 4.8 million

Range of expected project return: 12% - 15% IRR (based on Green Tariff)

Important factors for project development:

- accurate wind measurement (> 1 y) and wind yield data
- appropriate selection of wind turbines (manufacturer; wind characteristics)
- proper design of foundation
- proximity to existing grid

Typical Range of Solar PV Plant (hypothetical)

Installed capacity:	2 – 5 MW
Area required for PV plant:	5 – 12 ha (polycrystalline PV modules) 8 – 20 ha (thin film PV modules)
Electricity generation:	900-1200 kWh/kWp
Estimated investment volume:	EUR 6 – 15 million
Financing structure:	
■ **EBRD:**	EUR 3 – 7.5 million
■ **Clean Technology Fund:**	EUR 1.2 - 3 million
■ **Developer's equity:**	EUR 1.8 - 4.5 million

Range of expected project return: 10% - 17% IRR

Important factors for project development:

- level of solar radiation
- selection of bankable PV modules
- proximity to existing power grid

Application

In order to apply for financing, your company and project must meet the USELF eligibility criteria.

If you have any questions before applying for USELF financing, you are always welcome to visit Frequently Asked Questions section of our website or to contact the USELF Helpline, which will provide comprehensive answers.

The number of projects for which technical assistance and financing are provided is limited, so early application is advisable.

Practical Steps

1. Download and fill in the **Technical Application Questionnaire,** available from the website.
2. USELF Experts will perform **preliminary technical screening** in order to determine preliminary eligibility of the project for USELF financing, based on documentation provided by you.
3. If the company and the project meet the eligibility criteria, EBRD will sign a Mandate Letter with the borrower. The USELF team will then proceed with **technical due diligence** with the aim of preparing a Project Appraisal Note (PAN).
4. As part of project preparation, **environmental screening and due diligence** will be conducted to ensure the company and the project meet national and applicable European Union requirements for environment protection and health & safety. Where any deficiencies are noted and if agreed with EBRD, USELF experts will assist the borrowers in developing an Environmental and Social Action Plan (ESAP) to address these.
5. Based on the results of the technical and environmental due diligence, EBRD will take **a decision on loan approval.**
6. While implementation of the project is the responsibility of the borrower, the USELF team will **monitor project execution** and report on this to the EBRD.

Technical Assistance

To facilitate and speed up investments in renewable energies, USELF provides technical assistance and advice to applying companies. This is financed by a grant from the Global Environment Facility and is available free of charge for eligible projects. The primary goals of the technical assistance include:

- implementation support for sponsors
- eligibility check of each project for which an application is submitted
- project evaluation so that the EBRD can take a decision on loan approval.

Implementation support for sponsors includes:

- **Project permitting and licensing:** The Implementation Team will support this process by assisting developers in understanding the permitting and licensing process in Ukraine, advising what information is necessary to submit the various applications and helping to ensure such information is prepared to the necessary standard.
- **Feasibility studies:** While developers will be expected to prepare adequate feasibility studies themselves, they can benefit from advisory support to improve the rigor of analysis and identify additional issues to be addressed.
  The Implementation Team will advise developers on how to improve the standard of feasibility studies. This covers the scope and quality of information required by banks and other involved parties as well as the nature and scope of independent technical analyses which will be required for the due diligence process.
- **Commercial negotiations:** The Implementation Team will provide advice on how to prepare for discussions, including feedback on proposed commercial agreements, and, where appropriate, provision of model agreements as a basis for discussion.
- **Support in legal and commercial issues for preparation of loan documentation**
- **Project management :** The Implementation Team will provide input to developers to improve project management skills.

Under the grant provided by GEF, two additional lines of technical assistance are implemented:

- Assistance to the Government on further development of the regulatory frame work for renewable energy.
- Strategic environmental review on the impact of renewable energy projects.

Implementation Team

The USELF team

USELF is being implemented by the German Consulting company, Fichtner, in collaboration with IMEPOWER Consulting and Dewey & LeBoeuf Law Firm. The team of international and local expert consultants provides free-of-charge support for technical and financial evaluation of eligible projects and preparation of your application documents.

How to contact the USELF team

Please contact our helpline for any questions regarding USELF: per e-mail, online form or telephone. Our team will do its best to provide you with the necessary assistance within the shortest time possible.

Ukraine Sustainable Energy Lending Facility

Программа финансирования альтернативной энергетики в Украине

Програма фінансування альтернативної енергетики в Україні

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