

# Energy efficiency in Ukraine

## Sector factsheet



European Bank  
for Reconstruction and Development

Ukraine has enormous potential for energy efficiency and reducing greenhouse gas emissions as its “energy intensity” – the amount of energy used to produce each unit of GDP - is inordinately high. The largest efficiency gains can be achieved in the metallurgy, fuel, power and chemicals sectors. Improved efficiency and lower costs will reverberate through the economy as their output is used by other sectors, and will improve national energy security.



Energy efficiency is the cornerstone of the EBRD's Sustainable Energy Initiative (SEI) for all its countries of operations. Because addressing energy intensity is a vital part of Ukraine's transition to a functional, competitive market economy and its overall energy security, the EBRD is investing in the following.

### Energy-intensive industry

With a €102 million EBRD loan, CJSC Ekoenergiya, a company of the Industrial Union of Donbass (ISD), is constructing a 303MW cogeneration facility, which will use waste and coke oven gases produced by Alchevsk Iron & Steel Works and Alchevsk Coke Works. Apart from substantial energy savings of €61.2 million, the project will significantly reduce greenhouse gas (GHG) emissions by an estimated 6 million tonnes up to 2012, equalling the annual emissions of a large European industrial city such as Manchester.

The EBRD has lent €136 million to Ukraine's largest steel company, Mittal Steel Kriviy Rih, to help upgrade technology, boost productivity and become more energy efficient. During an energy audit commissioned by the EBRD, €44.8 million energy efficiency investments were identified, including the improvement of the Energy Management System (EMS), the upgrade of the electricity distribution system and steam turbine and the installation of energy efficient burners. These measures will reduce company's energy costs by 10 per cent or €20.4 million, and cut GHG emissions by 600,000 tonnes annually.

### Power

The EBRD is providing a €150 million loan to the national power company Ukrenergo for the construction of high voltage transmission lines, linking central regions of the country with those in the west that have surplus generation capacities. The project will improve the efficiency, quality and reliability of electricity generation and transmission in Ukraine.

### Public utilities

The EBRD is providing an €11.2 million energy efficiency loan to Cherkasy TeploKomunEnergo, the municipally owned district heating company. The loan will help finance a project aimed at reducing natural gas consumption, improving service quality, and partial metering of heat consumption in the city.

Zaporizhzhia Water Company has reduced by up to 40 per cent its electricity consumption by using a €19 million EBRD loan to upgrade pumping equipment.

A €100 million loan was signed with municipal transport companies Kyiv Metropolitan and Kyiv Pastrans to support environmentally clean and sustainable public transport alternatives to cars. The investments will enable the companies to acquire new metro trains, buses and trolleybuses that will significantly improve efficiency and overall quality of local transport.

## Sustainable Energy Initiative

The EBRD's Sustainable Energy Initiative (SEI) responds to the specific needs of the energy transition in the EBRD countries of operations. The SEI focuses primarily on energy efficiency and aims to:

- build policy dialogue to support the scaling up of investments
- strengthen its capacity to mainstream energy efficiency objectives
- work with other multilateral development banks and institutions to enhance the impact of its policy dialogue and share best practice
- establish a broad partnership with donors to mobilise grant funds required to scale up public and private sector financing

## Energy services companies

The EBRD has extended two loans totalling €34 million to finance government-backed UkrESCO, and a €6.8 million loan to privately owned Energy Alliance. Both companies provide advice and financing to mid-sized Ukrainian firms seeking efficiency improvements to cut costs and improve productivity.

## EBRD's Sustainable Energy Action Plan in Ukraine

The Bank has ongoing policy dialogue with Ukraine's government and business community on energy efficiency, renewable energy and climate change. The EBRD is closely working with the Ministry of Fuel and Energy, the National Agency on Efficient Energy Use, and the Parliamentary Energy Committee on development of renewable energy regulatory framework, bringing together state officials, international organisations and experts. Jointly with the Ministry of Environmental Protection of Ukraine, the EBRD has developed the Ukraine Carbon Market Facilitation Programme, which will be launched later this year. The Bank also works closely with the Ministry of Housing and Communal Services and local administration on energy efficiency in public & residential buildings as well as on reforms in municipal sector.

Project priorities for the EBRD include:

- reviewing all projects proposed for EBRD funding to assess at an early stage the potential for energy efficiency investments
- efficiency upgrades in energy investments, particularly in generation, transmission and distribution
- identifying and financing new projects in energy-intensive industries with a large energy efficiency component
- providing credit lines to local banks to finance energy efficiency improvements in industrial small and medium-sized enterprises and/or the residential sector
- supporting municipal improvements, particularly refurbishment of district heating systems
- introducing new mechanisms to finance sustainable energy projects through energy performance contracts
- assisting EBRD clients to monetise GHG reductions arising from Bank-financed energy efficiency and renewable energy projects.

## Ukraine Energy Efficiency Programme (UKEEP)

Funding of €100 million is available under the UKEEP facility through Ukreximbank, Bank Forum and Kreditprombank. Private sector clients may apply for sub-loans of up to €3.4 million to finance eligible energy efficiency and renewable energy investment projects.

The programme is being implemented with support from the Swedish International Development Agency and the Austrian Federal Ministry of Finance.

The projects being implemented under the UKEEP facility permit private sector companies to reduce their energy intensity and operating costs. This not only helps businesses remain competitive, it also reduces the intensity of their greenhouse gas emissions.

## Carbon finance

The EBRD offers its clients the opportunity to buy carbon credits from GHG emission reduction projects. The Multilateral Carbon Credit Fund (MCCF) became operational in 2006 with a commitment of €190 million provided by six countries and six Western European companies.

By selling carbon credits to the MCCF, the investor increases the financial return on a project. For example, renewable energy projects (for example wind, hydro and biomass) are able to boost their internal rate of returns by 1-7 per cent.

Carbon credits can be generated from a large variety of project types, all of which reduce or avoid GHG emissions and are of interest to the MCCF.

- Energy efficiency in industry (cogeneration, boilers, heat recovery) and larger projects in the residential sector (double glazing, insulation).
- Renewable energy such as wind, hydro, biogas (from landfills/waste water) and biomass.
- Avoided venting/flaring from gas exploration, transport and distribution and petro-chemical plants.
- Fuel-switching from carbon intensive (coal, mazut, oil shale) to lesser carbon-intensive fuels such as natural gas.



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### Exchange rates

Non-euro currencies have been converted, where appropriate, into euro on the basis of the exchange rates current on 31 December 2007. (Approximate euro exchange rates: £0.73, US\$ 1.47, ¥ 164.87.)

Today the EBRD uses the tools of investment to help build market economies and democracies in countries from central Europe to central Asia.



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