

Improving industrial energy efficiency

The EBRD is committed to developing more efficient uses of energy within its countries of operations. The Bank screens both existing and potential projects to identify possible energy savings. Typical areas where these savings can be achieved include the upgrade or introduction of:

- measurement and control systems
- process heat recovery
- electrical motors and transformers
- space heating and lighting
- onsite energy generation facilities, particularly those that combine heat and power generation.

Advantages of energy efficiency investments

If assessed and implemented properly, the returns from energy efficiency investments can be high and the technical risks relatively low. Energy efficiency investments can help to reduce energy consumption and may also improve production. Benefits can also be gained through environmental improvements and from the demonstration effect on the business community.

More than ever, companies are facing increased competitive pressures to produce high quality products at comparable or lower cost. In many of the Bank's countries of operations, energy prices are now close to international levels. Hence, where energy is a significant cost component, companies will need to bring energy costs in line with best practice standards. This is where the EBRD can assist.

How the EBRD can help realise energy saving potential

The EBRD's Energy Efficiency Team includes a specialist engineer dealing exclusively with industrial energy efficiency. (This position is funded with support from the government of Italy.) The EBRD's specialists work with project teams and with clients to identify energy saving opportunities. These opportunities are then developed for inclusion in the client's investment programme. All Bank clients are eligible for this service. The only requirements are that there are potential energy savings and that the client is committed to realising this potential.

There are several steps involved in developing an energy efficiency project as part of a general loan or investment with the EBRD:

Step 1: Initial assessment

- The Energy Efficiency Team screens all EBRD projects at an early stage of the project cycle and assesses the potential for energy savings.
- The screening process enables projects with good energy saving potential to be identified. For each of these projects, the client is then asked to complete a simple questionnaire.
- The questionnaire requests basic information on energy consumption and usage patterns. This information enables the Bank to make a more informed assessment of the potential for energy savings. The Bank uses a general questionnaire for most projects, but also has tailored questionnaires for the food industry and property. Copies of these questionnaires, in English and Russian, can be downloaded from the EBRD's web site www.ebrd.com/industrialenergyefficiency.

Step 2: Initial site visit

- Projects which have good energy saving potential are usually visited by the Bank's specialist energy efficiency engineer.
- The Bank's engineer reviews energy usage and the technologies employed at the client's facilities. The Bank's engineer also meets with management to discuss how energy is managed and plans for future developments.
- The objective of the site visit is to obtain a detailed picture of how energy is used throughout the client's operations, what potential there is for savings and how management approaches energy efficiency issues.
- In some cases, the site visit provides enough information for the Bank and the client to agree on the measures required, if any, and the level of support required by the Bank. In cases where there is broad scope for energy savings, a more detailed energy audit may be proposed.

Step 3: Energy audit

- The EBRD assists clients to address energy efficiency needs by arranging an energy audit. This audit is carried out by consultants contracted to the EBRD and paid for through technical cooperation funds. These funds have been provided by the Greek government, the Austrian government, TACIS programme and through the Central

European Initiative (CEI).

- These services are provided at no cost to the client.
- The scope of the energy audit varies depending on the needs of the client, but involves a detailed assessment of energy usage, the identification of specific projects to reduce energy consumption and an assessment of the costs and benefits of implementing the proposed investments. The client receives a detailed report of the audit which can be discussed with the Bank and the consultant.
- The Bank encourages clients to act on the recommendations of the energy audit report and will be ready to consider financing the proposed investments as part of the overall project it is supporting.

Step 4: Project implementation

- The Bank assists clients to implement all aspects of energy efficiency projects.
- The Bank is also able to assist clients to arrange and fund training programmes for energy managers and other senior management involved in energy decisions. These training programmes are also supported by funds from the Greek government and CEI.
- If further assistance is required from the energy audit consultants (for example with detailed design specification or equipment tendering), the client will need to pay for this from its own funds. The EBRD will, however, assist in arranging the appropriate advisory services.

Carbon finance

All energy efficiency projects result in reductions in greenhouse gas emissions. Where possible, the Bank facilitates the sale of carbon credits from its projects.

For further details, see the EBRD web site:

www.ebrd.com/carbonfinance .

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