

DELIVERING PROFITABLE ENERGY EFFICIENCY INVESTMENTS IN INDUSTRY

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European Bank
for Reconstruction and Development

EBRD investments - making businesses more profitable, sustainable and competitive



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Ivan Stojakovic
Manager, Woodmaster

[Video](#)

Energy efficiency in the transport sector

Rail transport in Kazakhstan



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CLIENT

National Company Kazakhstan Temir Zholy (KTZ) manages railway infrastructure and operates freight and passenger train services.

PROJECT

Finance for KTZ's energy efficiency programme, including installation of energy efficient lighting; introduction of heating solutions such as solar collectors, heat pumps; and upgrade of hot water generators.

FINANCIAL STRUCTURE

EBRD loan	EUR 28.6 million
of which SEI	EUR 28.6 million
CTF concessional loan	EUR 0.5 million

TECHNICAL ASSISTANCE

EUR 99,000 from the Shareholder Special Fund and the Netherlands for:

- Project design, management and monitoring;
- Capacity building in energy management and facilitation of ISO 50001 adoption;
- Review of ESCO mechanisms for financing energy efficiency investments



EXPECTED IMPACT

- Electricity savings: over 60,000 MWh/year
- Thermal energy savings: around 3,800 MW/year
- Emission reductions: 83,000 tCO₂/year
- Cost savings: over EUR 3.5 million/year
- Project IRR: > 15%

Energy efficiency in agribusiness

Energy efficiency for a sugar producer in Ukraine

CLIENT

Astarta, the largest sugar producer in Ukraine.

PROJECT

Funds from four EBRD loans between 2008 and 2012 were used for energy efficiency improvements, company expansion, financial support during the economic downturn and a biogas plant.

FINANCIAL STRUCTURE

EBRD loans	EUR 47.2 million
of which SEI	EUR 27.8 million

TECHNICAL ASSISTANCE

€80,000 for 3 energy audits to assist project preparation by identifying best available technology for:

- upgrading process heat exchangers
- upgrading filter press system
- introducing process heat recovery system



EXPECTED IMPACT

- Energy savings: 34,000 toe/year
- Emission reductions: 60,000 tCO₂/year
- The majority of energy efficiency investments had IRRs of more than 20%

Carbon Market

- EBRD facilitated a transaction in carbon credits under the Kyoto Protocol's Joint-Implementation mechanism.
- The MRV under this JI mechanism allowed for a robust assessment of the emission reduction impact.

Industrial energy efficiency

Energy and material efficiency in glass production



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CLIENT

Şişecam, one of the largest glass producers globally and a long-standing client of the Bank.

PROJECT

- **Turkish plant:** finance for various EE measures, including waste heat recovery and energy management systems.
- **Bulgaria plant:** capacity expansion and EE measures such as oxy-fuelling and waste heat recovery systems.
- **Russian plant:** construction of a greenfield plant for flat glass products in Tatarstan.

FINANCIAL STRUCTURE

EBRD loans	EUR 90 million
of which SEI	EUR 90 million
Total project value	EUR 290 million

TECHNICAL ASSISTANCE

In 2012 five plants were audited with more than EUR 112,000 of donor support from Italy and Spain.



EXPECTED IMPACT

- Emission reductions: >400,000 tCO₂e/year
- Working towards ISO 50001 certification for Energy Management Systems
- Enhanced reporting under the Carbon Disclosure Project and the Global Reporting Initiative

Where the EBRD invests



European Bank
for Reconstruction and Development

- Promotes transition to market economies in 34 countries from central Europe to central Asia
- Since 2011, the Bank has expanded its operations to include Egypt, Morocco, Tunisia, Jordan and Cyprus
- Owned by 65 countries and two inter-governmental institutions, with a capital base of €30 billion
- In 2013 committed €8.5 billion through 392 financing operations
- Net profit of €1 billion achieved in 2013

SOUND BANKING

& SUPPORT TO
THE PRIVATE
SECTOR

**TRANSITION
IMPACT**

& ADDITIONALITY

**ENVIRONMENTAL
SUSTAINABILITY**

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