Improving municipal and environmental infrastructure in Kazakhstan
Infrastructure that boosts economies and quality of life is a major area of EBRD finance. Whether helping to improve water supply, waste management, heating systems or public transport, the EBRD works with partners to make infrastructure efficient, reliable, and secure for people across Kazakhstan.
“With the European Bank for Reconstruction and Development we have developed a strong business relationship. In the last several years our cooperation has strengthened as a result of the implementation of a number of projects, which have become good examples for many other cities in Kazakhstan. I am glad that the people of Almaty can feel and see the benefits of our mutual work with the EBRD.”

Akhmetzhan Yessimov, Mayor of Almaty

“Th e EBRD is proud to support municipalities in Kazakhstan by providing finance to municipal and Public-Private Partnership projects. The city of Almaty has become our major partner in the country, thanks to three existing projects in the urban transport sector and a number of initiatives under preparation. Joining forces with our colleagues from the Akimat, we are striving to offer better living conditions to the people of Almaty. Across Kazakhstan, we also contribute to cleaner water in Shymkent and Aktau, and modernised district heating in Pavlodar, Ekibastuz and Petropavlovsk.”

Jean-Patrick Marquet, Director, Municipal and Environmental Infrastructure, EBRD
Improving municipal and environmental infrastructure in Kazakhstan
Building efficient, reliable and sustainable infrastructure

The EBRD is committed to improving municipal infrastructure in its countries of operations, in line with its mandate to build open and sustainable market economies. The MEI sector covers investments and services under the ultimate responsibility of local governments, whether provided by public or private entities.

The Bank’s core transition objective in the MEI sector is to promote greater efficiency and higher quality in the provision of municipal services through investment and the promotion of independent, well-managed and financially sustainable operations, based on commercial principles and in a sound and market-oriented institutional and regulatory framework.

The cornerstones of EBRD’s impact on transition in the MEI sector are decentralisation, commercialisation, energy efficiency and environmental and social improvement. Central to its activity, the MEI sector is mobilising large technical cooperation (TC) grant funds to promote project implementation, capacity development and institution building.

The EBRD entered Kazakhstan’s municipal and environmental infrastructure (MEI) sector in 2009. Its first and groundbreaking transaction consisted of a US$ 8 million loan to private utility company Vodnye Resursy Marketing, which provides water and wastewater services to both residential and industrial customers in the southern city of Shymkent.

Since then, the Bank has continued to invest in Kazakhstan and broadened its focus on the MEI sector to include:

- water and wastewater – improved quality of service and environmental compliance
- urban transport – improved public transport services, traffic management and more efficient and safe network design
- solid waste management – improved efficiency and frequency of collection, adequate disposal, and the prevention of groundwater contamination
- district heating – renewal of obsolete heating and distribution systems and significant efficiency gains.

How the EBRD improves municipal and environmental infrastructure

- structures the financing of municipal infrastructure, equipment and services
- promotes commercialisation and corporatisation of services
- develops regulatory and tariff structures
- promotes appropriate private sector involvement
- improves the environment
- facilitates donor grant and loan co-financing.
Getting public transport back on track in Almaty

The EBRD has been working to improve the standards and service of public transport in Almaty, the largest city in Kazakhstan. Almaty serves as an important transport hub, not only for Kazakhstan but for Central Asia as a whole. However, the city’s heavy traffic congestion, growing dependency on private-car usage and high pollution levels are a serious cause for concern. Pollution from transport is one of the main sources of hazardous emissions, estimated at about 30 per cent, due to low quality fuel and an outdated car fleet. The solution lies in cleaner, more efficient and environmentally friendly public transport services.

Promoting an integrated approach

The EBRD is helping Almaty address these challenges through an ‘integrated approach’, combining investments with policy dialogue and TC to target not only project implementation support, but also – with funding by the Czech Republic – reform objectives. The Almaty Urban Transport Integrated Approach, to run from 2010-2015, is targeting key challenges, strengthening the Bank’s leverage when pursuing transition, and ensuring wider and longer-lasting benefits for the city and its inhabitants.

Reforming the public sector

In 2010, the EBRD signed two new projects to help the municipal company KGP Almatyelectrotrans make the transition to cleaner and more efficient services. A US$ 35.2 million loan helped the company purchase up to 200 modern compressed natural gas (CNG) buses supported by TC from the EBRD Shareholder Special Fund (SSF) and for twinning assistance, from the US Department of Energy. The second loan of US$ 36 million loan financed the procurement of up to 200 new energy efficient low-floor trolley-buses to replace the existing outdated fleet: this was once again supported by TC from the Netherlands and Germany to ensure the corporatisation of the company for the future and to build capacity in tendering award and contract supervision.

These EBRD-financed projects build upon a 2009 EBRD loan to modernise the electrical substations that power the city’s electric transport network. Importantly, the projects also aim to dramatically upgrade Almaty’s public transport service standards, as well as to integrate private operators into the transport system through a new electronic ticketing system. The programme as a whole will improve the air quality in the city and make the system more efficient, reliable and customer-oriented.
Future focus

Future projects under preparation as part of Almaty’s public transport improvements include the financing of an Intelligent Transportation System (ITS) project that will include street LED lighting, an integrated dispatch centre and the roll-out of an integrated electronic ticketing system. This project concept has been developed following a successful visit to Taipei (supported by Taiwanese funding) by Almaty officials, where the benefits of such systems were demonstrated. The EBRD is also considering financing a new light rail transit (LRT) system on the basis of a Feasibility Study and PPP options assessment financed by Austria and Singapore to complement the state-funded subway system which was recently put into operation.

Promoting wider reform of the MEI sector in Kazakhstan

As can be seen, the EBRD’s involvement goes beyond simple financing of infrastructure or rolling stock and stretches deep into policy dialogue, and focuses on institutional development of the sector in Almaty. All projects are designed to collectively reform the urban transport sector and are expected to be a catalyst for modern, sustainable transport systems throughout Kazakhstan.

Highlights

• procurement of a fleet compliant with the EURO-5 emission standard, providing services for more than 40 million passengers a year

• setting up of a new incentive-based public service contract for the city’s bus sector with higher requirements for emissions and service quality standards for all operators

• introduction of a benchmark for the rest of the transport sector with 200 new CNG buses and 200 new trolleybuses

• support in the design, procurement and implementation of a sector-wide electronic ticketing system

• development of a new institutional and regulatory framework for urban transport.
Improving municipal and environmental infrastructure in Kazakhstan

Saving heat and energy in three cities

The EBRD is providing JSC Central-Asian Electric Power Corporation (CAEPCO), a leading private company in the country’s energy distribution sector, with a facility to support the modernisation of district heating networks that will bring better and more efficient services for the people of northern Kazakhstan. The EBRD’s facility will consist of two loans to CAEPCO’s district heating operators, totalling of up to €21.7 million (US$ 30 million), to finance their modernisation in Pavlodar, Ekibastuz and Petropavlovsk.

This energy efficiency investment is the EBRD’s first district heating project both in Kazakhstan and Central Asia as a whole. It is also part of the Bank’s wider approach to assist Kazakhstan in improving energy efficiency in its municipal infrastructure system. The loans will provide CAEPCO with medium and long-term financing in local currency, the Kazakh tenge, in line with the Bank’s focus on increasing local currency lending in its countries of operations. The project, known as the CAEPCO District Heating project, will be co-financed by the Clean Technology Fund (CTF) and supported by CAEPCO’s corporate guarantee.

“In cooperation with the European Bank for Reconstruction and Development we are succeeding in implementing major infrastructure projects. The Bank is making a significant contribution in solving the problems of economic modernization in the Republic of Kazakhstan. In our joint cooperation with the EBRD, we derive invaluable experience, and we are adopting the best international business practices.”

Mr. Erkyn Amirkhanov, President of JSC Central-Asian Electric Power Corporation (CAEPCO)

The EBRD’s CAEPCO District Heating project falls under one of the elements of Kazakhstan’s Country Investment Plan.
Facilitating energy efficient infrastructure

It is the first project in Kazakhstan co-financed by the CTF – a multi-donor trust fund within the Climate Investment Fund – which is designed to support low-carbon and climate-resilient development through scaled-up financing channelled through IFIs including the EBRD. The CTF aims to support the rapid deployment of low-carbon technologies on a significant scale, with the objective of cost-effective reductions in the growth of greenhouse gas emissions. In January 2011, US$ 42 million CTF financing was approved for the modernisation of Kazakhstan’s district heating. The use of the CTF’s concessional funds will help optimise the pace of investments in network modernisation with a view to improved affordability of end-user tariffs.

Funding these investments in renewable energy in Kazakhstan will be supplemented by donor-financed TC (sourced both from the CTF and the EBRD Shareholder Special Fund) to help the government of Kazakhstan develop the by-laws and standard procedures for feed-in tariffs and power purchase agreements.

Cutting losses and saving energy

The project supports priority investments in rehabilitating and modernising district heating systems, for enhanced energy efficiency, reduction in losses and improvements in environmental standards.

In particular it aims to reduce overall heat losses by at least 20 per cent; water losses by at least 25 per cent; and the frequency of pipe breaks by at least 25 per cent by 2020.

Furthermore, it will reduce electricity consumption by 2,049 MWh/year and will increase sales by 257,021 Gcal/year. The environmental effect of the project will be a reduction of coal use by 79 tonnes per year and CO2 emissions by 127,780 tonnes per year.
Promoting safer and cleaner services in Aktau

Located in the Mangystau region, Aktau is one of the fastest growing cities in Kazakhstan and the centre of the country’s oil and gas industry. Yet the development of the region has been constrained by the lack of quality water – a result of years of underinvestment in its municipal infrastructure.

But thanks to successful cooperation between the EBRD and the Mangystau Oblast, and with support from many of the Bank’s donors including Austria, Czech Republic, Finland, Korea, and the Netherlands, alongside the EBRD’s Shareholder Special Fund, several key projects in Aktau are in development, including: the modernisation of water and wastewater systems, the upgrading of the district heating system and the construction of a modern solid waste management facility that will introduce a ‘waste-to-energy’ component.

Rehabilitating water services

In 2010, the Bank extended a Kazakhstan Tenge (KZT) 1.2 billion (US$ 8.12 million equivalent) loan to the municipally-owned water utility to support the development and rehabilitation of the water and wastewater system. The project is enabling the public utility to improve the provision of water and wastewater services, whose development has been previously constrained by the lack of quality water available. The EBRD has become an important player in the water sector across Kazakhstan and has paved the way for a healthy pipeline of water projects across the country with work under way, not only in Aktau but also in Atyrau, Semei, Shymkent, and Taraz, among others.
Upgrading district heating

The EBRD is to provide a senior loan of Kazakhstan Tenge (KZT) 1.2 billion (US$ 8.12 million equivalent) to support the rehabilitation and upgrade of the district heating infrastructure in the city. It is expected that the EBRD loan will be supplemented by co-financing from the Clean Technology Fund (CTF), and a grant from the Akimat of Mangystau Oblast. The project will not only improve the reliability of district heating services in the city but will also support the Oblast in its efforts to reform its municipal infrastructure.

Modernising waste management

The first project under the EBRD Kazakhstan Waste Management Framework involves the financing of the construction of modern waste management facilities in Aktau and its surroundings. The project will mobilise loan funds from the Bank and the CTF, as well as a grant from the Akimat of Mangystau Oblast. The current waste management practice in Aktau is inherited from the Soviet era, whereby most of the generated waste is landfilled without separation. The key benefits of setting up a modern integrated waste management facility are better environmental standards, due to reduced landfilling, lower CO2 and methane emissions and an increased re-use and recovery of valuable material.
Making water and wastewater safe in Shymkent

The management of water and wastewater plays a central role in the EBRD’s commitment to environmental considerations and is a major focus of the Bank’s work in the MEI sector.

The EBRD is successfully implementing two projects in the water and wastewater sector in the city of Shymkent, supported by the EBRD Shareholder Special Fund for key transition reforms, which is set to benefit both residential and industrial customers. In particular, the projects aim to improve the services of Vodnye Resursy Marketing, a private water supply and wastewater management company, through modernising its outdated infrastructure and equipment, introducing modern corporate governance standards and establishing performance-based service agreements with the city and its residents. At the same time, the project has a significant demonstration effect in its enhancement of the sector commercialisation through private sector participation in municipal services.

The first loan of US$ 8 million was signed in 2009 and focused on financing a priority investment programme aimed at the modernisation of water services. This included rehabilitating the water distribution network, replacing worn-out elements of the sewerage system, and upgrading the disinfection equipment.

“Since 2009 our company has received loans from the European Bank for the Reconstruction and Development for the implementation of our Priority Investment Programme. Thanks to the financial support of the Bank more than 60 km of the water supply network has so far been upgraded in Shymkent. We have installed state-of-the-art technologies and equipment from world renowned manufacturers. We are glad to cooperate with the EBRD and we consider the Bank as our strategic partner.”

Anarbek Orman, General Director, Vodnye Resursy Marketing

Improvements at a glance

- upgrade of the existing WWTP facilities to ensure treatment of 100,000 m³ of waste water per day
- construction of a sludge treatment and biogas plant with the capacity of about 4.7 MW covering about 63 per cent of the WWTP electricity consumption
- a WWTP capacity increase of up to 200,000 m³/day to extend the service area
Future outlook

Public-private partnerships for water and wastewater

In May 2011, the EBRD and the Government of Kazakhstan signed a Memorandum of Understanding for the preparation of PPP projects in the water and wastewater sectors of several cities in the country. (As of April 2012, Atyrau, Semei, Taraz, and a fourth city were set to join.)

As a first step, EBRD has engaged international consultants, financed by the EBRD Shareholder Special Fund, to prepare the feasibility studies for the cities’ water companies. Simultaneously, a team of legal experts is studying how a PPP structure can be best implemented in Kazakhstan. Upon successful selection of the operator (through an open tender), the Bank will be ready to provide partial financing of the investment programmes in each city.

The EBRD hopes that these projects will demonstrate that PPP structures in the municipal sector can be successfully implemented for the benefit of the people of Kazakhstan.

A framework for solid waste management

EBRD has established a framework of up to US$ 100 million for integrated solid waste management in selected cities in Kazakhstan. It is expected that the EBRD financing will be complemented by co-financing from the CTF.

The framework is focusing on improving solid waste management services and will support sector reform through the introduction of environmentally friendly standards. Under the framework, the operations of municipal utilities will be either commercialised through the introduction of public service contracts or outsourced to the private sector in the form of PPPs.
EBRD in Kazakhstan

Sector breakdown of current projects

MEI Business Volume (by sector) in Kazakhstan
(Total percentage of project value)

- District Heating: 38.2%
- Transit and Ground Passenger: 69.1%
- Water and Sewage: 26.1%