Accelerating the response to climate change in 2015
Climate change - a barrier to development

People, businesses and governments in countries where the EBRD invests continue to face economic, environmental and social risks brought on by climate change, wasted energy, land degradation and water scarcity. Despite recent improvements, energy intensity in the EBRD region remains on average three times higher than in the European Union. The region is also vulnerable to the effects of climate change, such as droughts and floods.

Recognising that inefficient use of resources is a major barrier for economies in transition, the EBRD launched its Green Economy Transition approach. This is an effective business model for increasing the financing of projects in energy efficiency and renewable energy, in climate change adaptation, and in projects that minimise water and material consumption. These projects are undertaken in close collaboration with governments and the private sector.
The Green Economy Transition
The EBRD addresses the climate change challenge through its Green Economy Transition approach which aims to scale up investments in energy efficiency and renewable energy, as well as investments that minimise water and material consumption. In addition, the Bank supports investments aimed at making assets more climate resilient.

Investments under the Green Economy Transition are diverse and range from the construction of the first large-scale windfarm in Kazakhstan to the first alternative fuel project in the cement industry in Egypt. They also encompass everything from a light rail project in Turkey to several district heating rehabilitations in Ukraine and Central Asia.

Making a difference
Since 2006, the EBRD’s investments in this area have totalled US$ 24 billion in more than 1,000 projects. This has led to 72 million tonnes of carbon emission reductions. Renewable energy projects have generated 60 million MWh of electricity, which is equivalent to the annual electricity production of Romania.

A unique business model
Building on this experience, the business model of the Green Economy Transition approach is now tried and tested. The EBRD provides finance for clients and, when required, also arranges technical support. This can include the provision of resource efficiency audits to support clients in identifying the technically optimal investment solution or training clients in energy management.

In addition, the EBRD engages with governments in the countries where it works to assist in developing policies and regulations to scale up investments.

Working with climate finance partners
The EBRD’s climate finance partners provide crucial funds to support the EBRD policy dialogue efforts and the facilitation of technical expertise to clients. When market barriers are very high, these partners also step in and provide capex grants or concessional finance which is blended with the Bank’s commercial finance. This way, the Bank manages to overcome market barriers, such as the limited availability of state-of-the-art technologies and affordability constraints, which ultimately facilitates the creation of new markets.

In 2014, finance for technical support to clients totalled almost US$ 45 million, while concessional finance and capex grants amounted to US$ 135 million.

1 Unless otherwise specified, all figures are shown in US$ at the average 2013 exchange rate of US$ 1.35 = €1.
MAINSTREAMING SUSTAINABLE RESOURCES THROUGH CLIMATE FINANCE PARTNERSHIPS

The Climate Investment Funds (CIF) seek to develop investments that will stimulate market transformation and foster partnerships through country-led programmes. Established in 2008, the CIFs include four key programmes that help 61 developing and middle income countries pilot low emissions and climate resilient development. The financing is disbursed through multilateral development banks (MDBs) to support effective, flexible implementation of national and regional programmes. The EBRD is active in the following programmes and countries.

CLEAN TECHNOLOGY FUND (CTF)
This fund focuses on middle-income countries with sufficient resources to scale up and implement low-carbon clean technologies. CIF support enables EBRD projects in Kazakhstan, Turkey, Ukraine and the South-eastern Mediterranean (SEMED) region.

PILOT PROGRAMME FOR CLIMATE RESILIENCE (PPCR)
This programme helps low and middle-income and highly vulnerable countries to integrate climate risk and resilience into their development planning and implementation. PPCR support enables EBRD projects in Tajikistan and Kyrgyzstan.

SCALING UP RENEWABLE ENERGY PROGRAMME (SREP) IN LOW-INCOME COUNTRIES
This CIF programme expands renewable energy markets and the deployment of renewable energy in the world’s poorest countries. SREP support enables EBRD projects in Armenia and Mongolia.

FOREST INVESTMENT PROGRAMME (FIP)
This programme supports developing countries’ efforts to reduce emissions from deforestation and forest degradation and promote sustainable forest management and enhancement of forest carbon stocks (REDD+). FIP support will enable EBRD projects in Tunisia.

Global donor partnerships have been instrumental in mainstreaming climate finance across the EBRD’s operations.

Responding to calls for cleaner energy
The EBRD has responded to calls from donors and civil society groups to finance projects in sustainable resources by participating in multi-donor funds such as the Climate Investment Funds (CIF) and the Global Environment Facility (GEF). These funds seek to scale up global climate finance through information sharing, technology transfer, advisory support and concessional funding and further commercial co-financing.

Extending the scope of climate financing
The partnership between the EBRD and climate finance funds has enabled the Bank to extend its scope beyond its core energy efficiency and renewable energy activities by developing innovative products in the area of climate change adaptation, water and waste minimisation and climate technology transfer.

Overcoming problems of affordability
By blending EBRD commercial financing with CIF and GEF grant and concessional loan co-financing, the Bank can accelerate the implementation of projects with important environmental and economic impacts, that would otherwise struggle to secure commercial financing. These lower-cost blended loan packages have reduced financing costs for developers. In addition, the longer tenors and grace periods create a better alignment between the financing tenor and the payback period of a project.
**Kick-starting sustainable energy projects in emerging economies**

Many countries in the EBRD region have little experience of implementing sustainable resource projects. Targeted efforts are needed to develop appropriate regulatory frameworks and first-time demonstration projects that pave the way for larger-scale adoption as the market matures.

**Expediting the scale-up of projects**

Donor co-financing via the CIF and the GEF enables the Bank to build on its model, leverage donor resources and implement more projects at a faster rate.

**Supporting projects and policy dialogue**

In countries with nascent sustainable energy markets, funding from these donors is crucial and enables the EBRD to undertake policy dialogue activities. These cover legislation, regulation and procedures that create an appropriate investment environment. In addition, these funds provide technical cooperation support that promotes market development, builds developer and lender capacity, and ensures the successful development and implementation of projects.

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**Climate finance** refers to local, national or transnational financing that may be drawn from public, private and other sources of financing, to fund investment in clean energy production, energy efficiency and increased resilience to the effects of climate change.

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The Global Environment Facility (GEF) was established in 1991 as a pilot programme to promote environmental and sustainable development, and to cover the incremental costs of introducing global environmental benefits to local and regional projects.

The facility provides grants for projects in the following areas: biodiversity, climate change, international waters, land degradation, waste, chemical pollutants and adaptation to climate change.

The EBRD, as one of the GEF implementing agencies, has been receiving project-specific technical cooperation, project preparation grants and grant co-financing through the GEF since 2004. These have been used for the development and implementation of investments in areas such as climate change mitigation and adaptation, the transfer of climate-smart technologies and international waters.

[www.thegef.org](http://www.thegef.org)
THE EBRD AND THE CLIMATE INVESTMENT FUNDS

The CIF have committed US$ 485 million for EBRD investments to deploy clean technologies and build climate-resilient economies.

- The Clean Technology Fund (CTF) has approved US$ 459 million for clean technology investments by the EBRD in Kazakhstan, Turkey, Ukraine and the SEMED region.
- The Pilot Programme for Climate Resilience (PPCR) has approved US$ 26 million to support the EBRD in launching innovative approaches to improve Tajikistan’s resilience to climate change – this includes a large-scale hydropower rehabilitation and a range of projects to enhance water efficiency.
- The EBRD has already channelled more than 50 per cent of CIF funds into projects on the ground. More than 50 projects, totalling US$ 255 million, have been financed, ranging from district heating modernisations to waste management and sustainable energy projects, as well as climate change adaptation projects.
- CIF funds are offered largely as concessional loans with attractive pricing and longer tenors. So far, they have been blended with more than US$1 billion of EBRD market-based finance.
- The combined EBRD and CIF funds have attracted a further US$ 796 million from the private sector, governments and other donors.
- Joint EBRD/CIF projects are expected to lead to emission reductions of 1.5 million tonnes CO2e per year, equivalent to the CO2 emissions of Google in 2014.

CIF approved funds for eligible EBRD countries

<table>
<thead>
<tr>
<th>CTF Clean technology fund</th>
<th>PPCR Pilot programme for climate resilience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kazakhstan</td>
<td>Tajikistan</td>
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<tr>
<td>US$ 129 million</td>
<td>US$ 26 million</td>
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<tr>
<td>Turkey</td>
<td></td>
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<tr>
<td>US$ 145 million</td>
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<tr>
<td>Ukraine</td>
<td></td>
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<tr>
<td>US$ 150 million</td>
<td></td>
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<tr>
<td>South-eastern Mediterranean (SEMED) region</td>
<td></td>
</tr>
<tr>
<td>US$ 35 million</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>US$ 459 million</strong></td>
</tr>
</tbody>
</table>

Climate finance provided by the EBRD in partnership with the CIF (US$ million)

<table>
<thead>
<tr>
<th>Country</th>
<th>CTF</th>
<th>PPCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turkey</td>
<td>80</td>
<td>209</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>85</td>
<td>126</td>
</tr>
<tr>
<td>Ukraine</td>
<td>58</td>
<td>337</td>
</tr>
<tr>
<td>SEMED Region</td>
<td>77</td>
<td>139</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>11.3</td>
<td>140</td>
</tr>
</tbody>
</table>

* Exchange rate used: US$ 1.35 = €1.
The GEF has contributed US$ 130 million for EBRD climate mitigation and adaptation work.

- The GEF has provided over US$ 130 million to support the EBRD’s actions on reducing greenhouse gas emissions and building climate-resilient economies. The funds from the GEF are largely used to support local businesses and financial institutions with project preparation and implementation. The GEF funds have also been used to support government entities with regards to policy and regulatory reform.
- Areas of the GEF-EBRD partnership include promoting energy efficiency in energy intensive industries, renewable energy deployment, pollution abatement and green shipping.
- The GEF Special Climate Change Fund has dedicated US$ 14 million to building climate-resilient economies in the Kyrgyz Republic, Morocco and Tajikistan - from improving water supplies and the quality of drinking water to building climate-resilient ports.
- The GEF also supports the Finance and Technology Transfer Centre for Climate Change (FINTECC), which promotes the transfer of innovative technologies to reduce greenhouse gas emissions and improve climate resilience.
SCALING UP ACTIVITIES WITH FINANCIAL INSTITUTIONS: TURKEY SUSTAINABLE ENERGY FINANCE FACILITY (TURSEFF)

TurSEFF

In 2010, the EBRD launched TurSEFF, a facility through which the Bank provides credit lines to Turkish financial institutions who then on-lend the funds to small- and medium-sized businesses for sustainable energy projects. TurSEFF, initially a US$ 200 million framework, has laid the foundations for creating a sustainable energy market. Today, TurSEFF has grown to US$ 600 million and a series of new sustainable energy financing facilities have been launched to a value of more than US$ 2 billion in total.

Recognising the market barriers with regards to energy efficiency and renewable energy in Turkey, the Clean Technology Fund (CTF) and the European Union (EU) provided crucial support. The combination of US$ 50 million of concessional funds from the CTF and the EBRD’s commercial finance offers partner banks more attractive pricing and longer maturities. In addition, US$ 7.7 million from the EU has been used to support partner banks and local businesses with project implementation and capacity building.1

Thanks to the support from the CTF and EU, as well as the commitment of the partner banks to develop new business areas, sustainable energy financing operations in Turkey have started to grow. In 2012, TurSEFF received additional finance which increased the facility to US$ 289 million for five partner banks. The additional finance included US$ 20 million from the Japan Bank for International Cooperation. In 2013, TurSEFF was extended with US$ 315 million of funds added on a fully commercial basis.

Building on the successful relationship with partner banks established through TurSEFF, the Mid-sized Sustainable Energy Financing Facility (MidSEFF) was launched in 2010. The US$ 1.3 billion facility operates on commercial terms. In 2014, the Turkish Residential Energy Efficiency Financing Facility (TuREEFF) was launched to replicate the success of TurSEFF in the residential sector.

These sustainable energy investments have brought multiple benefits to Turkey. The country is expected to save more than US$ 450 million worth of oil imports per year 2 and will avoid 3.3 million tonnes of greenhouse gas emissions per year, which is equivalent to the annual emissions of 560,000 people in Turkey.

CASE STUDY
KORES WIND PROJECT
TURKEY

Project financed by GarantiBank through TurSEFF
Located near Izmir on the beautiful Aegean coast of Turkey, the Kores wind farm project has received financing of US$ 2.6 million from GarantiBank through TurSEFF. With total installed power of 2.5 megawatts of electrical output (MWe), Kores will increase the supply of renewable electricity by 8,850 megawatt hours (MWh) per year. This is equivalent to the annual electricity consumption of 900 Turkish households. As a result, the country will avoid expenditure of US$ 1.5 million on imported oil and will prevent emissions of 5,463 tonnes of CO₂ equivalent (CO₂e).

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1 Exchange rate of €1 = US$ 1.35 has been applied throughout the texts in this document.
2 Primary energy savings achieved through TurSEFF and MidSEFF total 7,517,663 boe. Based on an oil price of US$ 60 per barrel, this will lead to savings worth US$ 451 million.
BOOSTING RENEWABLE ENERGY: UKRAINE SUSTAINABLE ENERGY LENDING FACILITY

USELF

Ukraine is one of the most carbon-intensive countries in the EBRD region, at almost four times the average for the European Union. In 2009, the EBRD recognised the potential in supporting Ukraine’s efforts to reduce its carbon intensity and launched the Ukraine Sustainable Energy Lending Facility (USELF).

USELF commercial financing of US$ 135 million, combined with US$ 54.6 million of CTF climate finance, and about US$ 13 million of technical assistance support provided by the GEF, Sweden and Japan have catalysed development of the renewable energy sector in Ukraine.

The availability of climate finance for approximately 20 per cent of project costs, at attractive pricing and tenor, was crucial for bridging the capital gaps that would otherwise have prevented such projects from moving ahead. TC funding through the GEF helped the EBRD to support the government of Ukraine in strengthening the regulatory and policy environment for renewables. It also addressed the limited experience of local private sector developers.

Financing and TC have been provided directly to small and medium-sized renewable energy projects in the biomass, small hydro, solar and wind sectors to:

- demonstrate the benefits of such investments
- encourage and support policy dialogue and institutional capacity-building that foster a favourable environment for the development of the renewable energy sector
- build private sector capacity among project developers.

To date, eight projects have been signed under the USELF programme, with US$ 79 million of combined EBRD and CTF financing. These projects attracted a further US$ 27 million, largely from the private sector. These projects are expected to save 200ktCO₂ per year once they are operational.

In 2014, USELF was extended for an additional three years, supported by US$ 27.5 million from the CTF. This will continue to boost the country’s efforts to reduce greenhouse gas emissions and improve its energy security. This will boost the country’s efforts to reduce greenhouse gas emissions and to improve its energy security.

Eight USELF projects will result in 67.2 MW of energy generation capacity from various renewable sources – solar, wind, hydro and agricultural waste.
The EBRD region contains some of the most climate-vulnerable countries in the world – from water-scarce North Africa to the glaciers of Central Asia.

In partnership with the CIF and the GEF, the Bank has moved quickly to develop innovative responses to the need for climate change resilience. With the support of these partners, the EBRD provides technical support and carefully designed finance that helps businesses and communities take practical steps towards climate resilience by adopting appropriate technologies and practices.

These innovations include reducing water wastage in vulnerable supply networks, generating better data on how climate shifts will affect hydropower generation, and working with local financial institutions to make climate-resilient technologies affordable and accessible for small businesses.

CASE STUDY
WATER SUPPLY IN TALAS
KYRGYZ REPUBLIC

The city of Talas in the Kyrgyz Republic is extremely vulnerable to the impact of climate change on its water infrastructure. With the help of a comprehensive financing package composed of US$ 1.5 million from the GEF’s Special Climate Change Fund and US$ 2.7 million from the EBRD, Talas is securing the future of its water supply. The municipality is integrating practical climate resilience measures into the upgrade of its water and wastewater infrastructure. The investment will save 100,000 m³ of water per year. Clean and safe drinking water will improve the well-being of 45,000 citizens and have positive social and economic impact. This model is now being replicated by the EBRD in other cities across the Kyrgyz Republic and beyond. In addition, through capacity-building, technical cooperation and awareness-raising, alongside investment, the EBRD promotes the longer-term sustainability of these improvements in water infrastructure.

The catalytic effect of climate finance has made it possible to leverage significant co-financing for climate change adaptation from other EBRD resources and additional donors. This has brought the total for adaptation finance to more than US$ 865 million since 2011, covering 107 adaptation projects across 27 countries.

MUNICIPAL SECTOR
IN KAZAKHSTAN

The Central Asian Electric Power Corporation (CAEPCO), a private sector energy company in Kazakhstan, is improving the environmental performance and efficiency of its district heating subsidiaries in Pavlovodar, Ekibastuz and Petropavlovsk. The company aims to rehabilitate and improve the energy efficiency of existing heat distribution networks in these cities. CAEPCO has received US$ 30 million of EBRD financing, coupled with Clean Technology Fund (CTF) concessional financing of US$ 10 million to address affordability constraints associated with tariff increases linked to these investments. The EBRD has also provided US$ 532,000 of TC support from the EBRD Shareholder Special Fund to improve the company’s environmental standards, plus US$ 212,800 for energy efficiency audits and studies to develop energy saving programmes for CAEPCO’s clients. Together, all of these CAEPCO projects have yielded annual CO₂ reductions of over 128,000 tonnes.
An outstanding success story of the FINTECC programme is Bear Beer, a beverage producer in the Kyrgyz Republic. Bear Beer decided to modernise and expand its beverage production in a greener way and received an EBRD loan of US$ 9.3 million. Bear Beer also received a free energy audit through the FINTECC programme and was able to make an informed decision on its investments. As a result of its investments, Bear Beer now has a state of the art, energy efficient factory with a CO2 recovery system, improved building insulation and an advanced energy management system. Bear Beer replaced coal-based energy generation with gas steam boilers, which means its community will benefit from better air quality. Bear Beer was the first beverage company in the Kyrgyz Republic to comply with EU beverage production standards. Energy savings are expected to total 370 toe per year.
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The EBRD is investing in changing people’s lives from central Europe to Central Asia and the southern and eastern Mediterranean.

Working together with the private sector, we invest in projects, engage in policy dialogue and provide technical advice that fosters innovation and builds sustainable and open-market economies.