

Sustainable Energy Initiative in Turkey



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With increasing industrialisation, urbanisation and growing concerns over rapidly rising greenhouse gas emissions, Turkey's highly energy-dependent economy presents one of the greatest challenges and opportunities for sustainable development in the region. Fostering sustainable energy investments is a core focus of the Bank's overall strategy and activities in Turkey.

EBRD's Sustainable Energy Initiative (SEI) finances sustainable energy projects by combining investments with technical assistance and policy dialogue with stakeholders. Under the SEI, the EBRD has invested €1.2 billion in 27 projects in Turkey, of which nine projects worth €443 million were signed in 2012. The Bank has invested across different areas ranging from corporate energy efficiency to investments in renewables and cleaner energy production.

Sustainable energy financing facilities

The EBRD supports small and medium-sized energy efficiency and renewable energy investments in Turkey through dedicated credit lines to commercial financial institutions which on-lend to private households and businesses. Credit lines are combined with technical assistance to support partner banks and prospective borrowers with project preparation and implementation.

In 2010, the EBRD launched the Turkey Private Sector Sustainable Energy Financing Facility (TurSEFF), a US\$ 285 million facility which finances sustainable energy investments up to US\$ 5 million. The facility is supported by the Clean Technology Fund (CTF) which provided US\$ 50 million of concessional co-financing and €1.6 million for

technical assistance. Based on the experience gathered under TurSEFF, the EBRD launched the Mid-Size Sustainable Energy Financing Facility (MidSEFF) in 2011. This €1 billion facility, including €300 million from the European Investment Bank (EIB), is aimed at scaling up mid-size (project costs from €5 to 50 million) sustainable energy investments in Turkey. Funding for technical assistance is provided by the European Union (EU) in co-ordination with the Turkish Treasury, under the EU IPA 2009 funding allocation (€7 million).

At a glance

The EBRD's SEI was launched in 2006 to address the twin challenges of energy efficiency and climate change in the region. Since 2006 more than €11 billion has been invested in 617 projects. Turkey became a country of operations of the Bank in 2009 and SEI results in the country include:

Number of projects

27

SEI investments since 2009

€1.2 billion

Total project value

€5 billion

SEI percentage in EBRD's business volume for Turkey

44%

Avoided GHG emissions in Turkey (CO₂-eq per year)

5 million tonnes or 2% of Turkey's annual emissions in 2009

Primary energy savings in the country

1.5 million toe per year or 2% of Turkey's annual energy imports in 2009

SEI performance since 2009

SEI business areas	SEI volumes (€ in million)	Number of projects
Industrial energy efficiency	112	5
Sustainable energy financing facilities	643	13
Cleaner energy production	165	2
Renewable energy	145	2
Municipal infrastructure energy efficiency	107	5
Total	1,171	27

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Renewable energy

The first renewable energy investments undertaken by the EBRD in Turkey were the two largest winds farms in the country - Rotor wind farm, a 135 MW wind power plant (WPP) in Osmaniye, and Bares, a 142 MW onshore wind farm in Balıkesir.

The EBRD plans to continue and diversify its investments in renewable energy, recently finalising a study on the geothermal market potential in Turkey and currently developing related instruments to promote private sector investment. In addition, the EBRD has carried out a biomass study to identify commercially viable business models and opportunities in waste-to-energy investments.

Municipal infrastructure

The EBRD supports energy efficiency investments in infrastructure by financing municipal companies and private operators in water and heat supply, urban transport and waste and waste water treatment. Since the launch of the SEI, investments in Turkey's municipal infrastructure energy efficiency have reached €107million with a total project value of € 931 million. In areas where traditional financing approaches are not suitable, the Bank has turned to other instruments including support to Energy Service Companies (ESCOs). The Bank is currently considering a new dedicated credit line, the Municipal Sustainable Infrastructure Financing Facility (MunSIFF) which aims to support the development of sustainable energy in the municipal sector.

Corporate energy efficiency

The EBRD works directly with medium and large industrial clients in Turkey to promote best practice and encourage companies to implement energy efficiency investments. This is done by combining commercial financing with free-of-charge energy audits, energy management training and technical assistance. Since the start of SEI operations in Turkey, the SEI volume in industrial energy efficiency has reached €112 million in five projects.

Policy dialogue

Through its donor-financed and in-house policy dialogue activities, the Bank aims to share international best practices that support project and policy development. These include:

Carbon Emission Factor (CEF)

This involves the detailed analysis, calculation and modeling of the CEF for Turkey incorporating all carbon intensive sectors of the economy. The study will serve as a benchmark for upcoming climate change-related projects and reduce the transaction costs of any future study.

Carbon Market Development

Linked to its sustainable energy investments under MidSEFF, the EBRD has launched a carbon market development programme to support its clients in structuring carbon transactions on a cost recovery-basis. In addition, this Carbon Finance Consultancy supports partner financial institutions in establishing a portfolio of carbon market services and aims at increasing local carbon credit demand by developing a Turkish Carbon Certificate system.

Energy efficient glass production and recycling - Şişecam

Şişecam is the leading manufacturer of flat glass products in Turkey and south-eastern Europe. It ranks among the top six flat glass companies in the world. The EBRD has provided a €90 million loan to Şişecam to finance the construction of a new production plant in Tatarstan (Russia) and energy efficiency investments in its operations in Turkey. In addition, the Bank is currently collaborating with the company to launch a glass recycling pilot scheme in both countries. With this initiative the EBRD aims to create collaborations between its public and private sector counterparts.



Renewable Energy Action Plan (REAP)

From 2013-23, the REAP will assess Turkey's overall potential for renewables, propose policy measures and develop a roadmap to achieve the country's renewable energy targets.

Geothermal market assessment in Turkey

In 2012, the Bank commissioned a geothermal market assessment for Turkey, aimed at reviewing technology options, developing suitable financing structures and identifying potential projects, in order to scale up geothermal investments in Turkey. The assignment identified central and eastern Anatolia as areas where additional exploration efforts would be required. Moreover, the study suggested the development of drilling risk mitigation financing mechanisms to be essential for unlocking Turkey's geothermal potential. The Bank is currently discussing with the government of Turkey and various multilateral development agencies the development of suitable cooperation frameworks in this area.
