Concepts & Achievements: Green Finance in Turkey

Sustainable Development Banking



Industrial Development Bank of Turkey

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WHY IS GREEN FINANCE IMPORTANT FOR TURKEY?



Current Account Deficit Problem

Current Account Deficit: Energy and Non-Energy (as % of GDP)





GDP and **Electricity** Consumption Growth





Electricity Generation by Type of Fuel





Turkey's Greenhouse Gas Emissions (Million CO₂ Equivalent Tons)



- Turkey's greenhouse gas emissions have gone up by 110% CO₂ equivalent between 1990-2013.
- Energy production and consumption account for 70% of emissions.



EVOLUTION OF GREEN FINANCE IN TSKB



Green Finance Journey of TR & TSKB



Renewable Energy



Internal capacity building in Engineering – Economic Research - Loan Allocation – Corporate Marketing Departments

- Capacity Building within the Engineering Department:
 - Studies on previous renewable energy projects
 - Development of techniques on evaluation of raw data (water, wind etc.)
 - Development of feasable models and cross checking methodologies
- Expectations on LT demand growth for energy → estimation of short/mid/long term market price for energy by Economic Research Department (energy sector specialist)
- Introduction of flexible collateral techniques by Loans Department (Letter of Guarantee – Mortgage – Pledge)
- Cooperation between related departments; preparation of a checklist by Engineering Department for Corporate Marketing and Loans Departments



Energy Efficiency



Internal capacity building in Engineering – Corporate Marketing Departments

- Capacity Building within the Engineering Department:
 - Identification of Energy Efficiency criteria (will be shown on the next slide)
 - Studies on successful projects
 - Prioritisation of industry (among other sectors) and energy-intensive sectors, such as steel, cement, paper and glass (among other sub sectors)
 - Development of potential projects and their cross-check with companies
- Forming a marketing team of two people: Relationship Manager + Engineer
- Training of the marketing team (Technical Assistance in form of site visits in Germany)
- Creation of checklist/booklet for Corporate Marketing staff



Criteria for Energy Efficiency

- Projects that fulfill the conditions of
 - at least 20% reduction in energy consumption

or

• at least 50% of incremental benefits of the project coming from cost savings in energy consumption

or

- at least 20% reduction in carbon emissions
- Projects that are not in form of green field investment (as there shall be a «before and after» comparison)
- Projects that meet all environmental laws and regulations



Lessons Learned in EE Financing

- Companies lack of knowledge of preparing bankable EE projects.
- Banks stil lack knowledge of EE technology and EE project implementation,
- Banks are accustomed to financing income growth rather than cost savings,
- Investment costs may range from very small amounts to very large amounts per project necessitating development of special business models,
- Use of EE performance guarantees provided by third parties such as ESCOs is not common in Turkey,
- The ESCO model is a good start and EPC model should be strengthened,
- Customer relations are critical for loan development and follow-up,
- In Turkey, EE financing is still at early stage, we have a long way ahead. Each country should create its own model.



Suggestions for EE Improvement

Stakeholder Engagement - Capacity Building

- Citizen level involvement in EE projects, capacity building and increasing awareness of EE should be promoted. Responsible institutions from EE education are needed.
- Capacity building measures should be taken for all financing institutions.
- OIZs should take responsibility in EE & ResE investment by creating synergy between participating companies.
- Intl. Testing Institutions for Machinery & Equipment and structured EE database including works of stakeholders required (ESCOs, banks, firms, public sector etc).

Policy Making and Legal Framework

- Cost benefit analysis should be conducted for the planned measures and should be followed with numerical key performance indicators.
- Standards and methodology of measurement, verification and reporting should be integrated into the legal framework.

Financing

- Process for the grants and subsidies could be simplified (best practices of other countries).
- Supports for energy efficiency should be increased and diversified.



ResE beyond EE

Potential Resource Efficiency Projects:

Water Efficiency

- Reducing water use; alternative process technologies
- Recycling and re-use of process water and grey water

Material Efficiency

- Waste minimization, product design, packaging, recycling
- Goods that produce less waste during the operational or disposal phase
- Goods that lead to a reduction of raw material consumption

Sustainable Energy

- Using less energy for the same production level
- Waste-to-energy
- On-site renewable energy generation

Opportunities for Resource Efficiency

The efficient use of natural resources is critical for sustainable private sector development as companies reduce cost, prevent waste and abate greenhouse gas emissions.



Projects Financed by TSKB

Renewable Energy	Energy Efficiency	Resource Efficiency
107 renewable energy projects were financed. (2003 - 2014)	56 energy efficiency projects financed. (2009 –2014)	7 resource efficiency projects were financed. (2013 –2014)
 Total installed capacity: 3,885 MW 	 Total emission will be reduced by 1.2 million ton CO₂ equivalent 	 Financing "Resource Efficiency" since November 2013
 TSKB evaluated more than 300 RE projects 	• 2 billion mega calories of energy will be saved. This amount corresponds to approx. 212,000	 Chemical, steel, salt and automotive sectors were financed
 Total investment cost of RE projects reached to USD 7.6 billion. Funds committed to these projects by TSKB is USD 2.3 billion. 	 households heat energy consumption per annum Share of energy efficiency finance in total outstanding loans is around 8.2% 	 Total emission will be reduced by 77,350 tons CO₂



TSKB acts as an intermediary bank for the following financial institutions and disburse the energy efficiency dedicated credit lines for the eligible projects:

- Agence Française de Développement (AFD)
- Kreditanstalt für Wiederaufbau (KfW)
- European Investment Bank (EIB)
- International Bank for Reconstruction and Development (IBRD)
- International Finance Corporation (IFC)
- Council of Europe Development Bank (CEB)
- European Bank for Reconstruction and Development (EBRD)
- Österreichische Entwicklungsbank (OeEB)
- Japan Bank for International Cooperation (JBIC)



Diversified funding structure





Sustainability Journey of TSKB



Awards

- Highest Corporate Report Transparency rating given to a bank by Transparency International (2015)
- Low Carbon Hero Award Sustainable Production and Consumption Association, SPCA (2015)
- Corporate Governance Association of Turkey (TKYD) Highest Corporate Governance Rating (2012,2014,2015)
- "Climate Change Leaders" awards CDP Turkey (2013)



Sustainable Bank of the year: TSKB

We are awarded as "Sustainable Bank of the Year" for the East Europe by FT and IFC in 2008, 2009 and 2010.

In 2011 and 2013 we were in the short list (one of the final three) for the whole Europe.

