



Project Information Document/ Integrated Safeguards Data Sheet (PID/ISDS)

Concept Stage | Date Prepared/Updated: 26-Apr-2018 | Report No: PIDISDSC24498

**BASIC INFORMATION****A. Basic Project Data**

Country Turkey	Project ID P162762	Parent Project ID (if any)	Project Name Turkey Energy Efficiency in Public Buildings (P162762)
Region EUROPE AND CENTRAL ASIA	Estimated Appraisal Date Dec 10, 2018	Estimated Board Date Feb 26, 2019	Practice Area (Lead) Energy & Extractives
Financing Instrument Investment Project Financing	Borrower(s) Iller Bank	Implementing Agency Ministry of Energy and Natural Resources	

Proposed Development Objective(s)

The project development objective is to reduce energy use in public buildings and develop, test and scale-up of suitable sustainable financing and institutional mechanisms to support a national program.

PROJECT FINANCING DATA (US\$, Millions)**SUMMARY**

Total Project Cost	210.00
Total Financing	210.00
of which IBRD/IDA	150.00
Financing Gap	0.00

DETAILS**World Bank Group Financing**

International Bank for Reconstruction and Development (IBRD)	150.00
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Non-World Bank Group Financing

Counterpart Funding	10.00
Borrower	10.00
Trust Funds	50.00
Clean Technology Fund	50.00



Environmental Assessment Category

B - Partial Assessment

Concept Review Decision

Track II-The review did authorize the preparation to continue

Other Decision (as needed)

B. Introduction and Context

Country Context

Turkey has achieved commendable economic and social development results since the early 2000s, raising it to the world's 17th largest economy and establishing it as a global presence. Macroeconomic stability, broad social and economic reforms, closer economic ties with the European Union (EU), and a transformation of a significant part of the economy away from agriculture into manufacturing and services were core contributors to Turkey's growth. Turkey's Gross National Income (GNI) per capita rose from US\$3,115 in 2001 to US\$11,000 in 2015; poverty incidence more than halved and extreme poverty fell even more dramatically. Turkey's success on poverty reduction was driven mainly by increased labor incomes and stemmed from growing levels of consumption rather than changes in the distribution: these are all factors that make poverty reduction more sustainable. Turkey's growth for the 2010-2016 period continued to be impressive, averaging 6.7 percent annually, in sharp contrast to many other middle-income countries. Despite being hit by adverse shocks in 2016 linked to the failed coup attempt, the economy has shown remarkable resilience: growth in 2017 is estimated at 6 percent, supported by a substantial fiscal stimulus.

The Government continues to implement its 10th Development Plan (2014-2018) for which ownership remains strong and long-standing. The Government is committed to continued structural reforms to ease constraints on productivity, tackle a low female labor force participation rate that hampers sustained growth, and build the skills of its population to reap the benefits of greater global integration. Turkey's macroeconomic and fiscal frameworks remain robust despite political, security and economic challenges, many of which are external. The continued difficult geopolitical environment in the region, stemming from the Syrian crisis among other issues, has had a negative impact. Weak growth in the EU – Turkey's largest export market and trading partner – has also impacted exports and investment. In response to these challenges, the government has executed a successful fiscal stimulus since mid-2016 that underpinned the strong growth rate in 2017; continued robust growth of 4 percent each year is predicted for the medium-term. Turkey's development foundations remain sound and should bolster its ability to continue to face challenges and carry out needed reforms.



Sectoral and Institutional Context

The public sector, which is the largest single energy user in Turkey, can lead by example while helping to catalyze markets for EE goods and services. Common ownership and public financing allows for potential bundling of smaller projects, thus lowering purchasing and implementation costs and implementing at a larger scale. A scaled-up public-sector program can also help bring in new equipment suppliers and service companies thereby increasing competition, create jobs, fostering a sustainable local energy service company (ESCO) industry—as shown in other countries such as Canada, Germany, Japan, the Republic of Korea, and the United States. Therefore, a national-scale program to renovate government buildings in Turkey is proposed.

To address these challenges, the World Bank prepared an options paper, entitled Turkey: Options for Financing Energy Efficiency in Public Buildings in September 2016 following two roundtable discussions (January 2015, April 2016). The report looked at several options for institutional set-ups and financing schemes to support a national EE investment for public buildings and recommended three for the government to consider: (i) budget financing with capital recovery; (ii) an energy efficiency revolving fund; and (iii) a super ESCO.

There was consensus among the various ministries that there would be a need to establish a centralized program to support energy efficiency renovations in public buildings and that a revolving scheme, where by the investment costs would be recovered through the energy budget savings, would help ensure the program's long-term sustainability. Such a program would make it easier for building administrators to renovate their buildings (without each having to undertake the entire process on their own), while ensuring consistent technical quality and allowing economies-of-scale by bundling several buildings in each tender. And, while some preferred the idea of a new institution set-up for this purpose, it was noted all three options could work through existing institutions with some TA. In November 2017, MENR determined that, due to current budget rules for central government buildings which do not allow budgetary savings to be easily captured, the initial focus should be on municipal buildings with Iller Bank (Ilbank) acting as a super ESCO.

Relationship to CPF

The Project will contribute to the Turkey Country Partnership Framework (CPF) for the FY18-21 period by supporting the objective to improve the efficiency of energy consumption. Energy efficiency is among the key priorities for the energy sector cooperation between the Bank and the Government of Turkey as articulated under the CPF Focus Area 3 - Sustainability. Through the Project, the Bank will contribute to decrease energy consumption by providing a comprehensive national program for sustainable financing of energy efficiency in public buildings. Accordingly, the Project will serve under Objective 7 of the CPF, which aims to help Turkey enhance its energy independence, Objective 8, which supports sustainable and resilient cities, and Objective 9, which aims to improve the sustainability of Turkey's infrastructure assets.

C. Proposed Development Objective(s)

The project development objective is to reduce energy use in public buildings through the development, demonstration and scale-up of a suitable sustainable financing and institutional mechanism to support a national program.

Key Results (From PCN)

Progress made under the Project would be monitored according to the following indicators: (a) projected lifetime energy savings from energy efficiency investments in public buildings (GWh); (b) demonstration of a financially sustainable business model to finance energy efficiency subprojects in the public sector (e.g., % defaults, % of operating costs covered



by revenues); and (c) associated CO2 emissions reductions as a result of the energy savings (tons of CO2 equivalent). Other indicators could include: number of buildings renovated, budgetary savings from the investments, number of ESCO contracts in place, resolution of budgetary constraints for central government buildings, number of municipalities participating in program, etc.

D. Concept Description

Component 1. Establishment of a Public ESCO for EE in Public Buildings (US\$150 million IBRD, US\$45 million concessional CTF loan). Under this component, a public ESCO will be established and capitalized within Ilbank to finance and implement energy efficiency upgrades in municipal government buildings. Under the ESCO concept, Ilbank would enter into long-term (~10-year) contracts with municipalities provide turn-key ESCO services for their buildings which would include: (a) conducting preliminary energy audits of the buildings; (b) contracting local ESCO companies to undertake the detailed designs and renovation works; (c) financing the renovations; (d) monitoring and reporting on energy savings; and (e) recovering investment costs and associated fees from the municipalities' energy cost savings. While the specific modalities of the CTF loan are still to be developed, preliminary ideas include part of the loan financing the first set of building renovations (e.g., up to 30 buildings or about US\$10 million) given the high risks associated with such a new business model (i.e., super ESCO), innovative procurement methods (see below) and energy savings verification protocols in Turkey. Without these funds, Ilbank would have to assume all risks and would be unlikely to agree to such untested approaches. Thereafter, the CTF loan would be limited to provide cofinancing for buildings, covering the deeper energy efficiency measures needed to bring the agreement (e.g., ESA) below the agreed 10-year threshold.

The Project would seek to support deep renovations of eligible public buildings¹. Proposed subproject criteria would be a minimum savings of 20%, investment cost of at least US\$50,000 and a maximum simple payback period of 8-10 years. Typically, this would cover building envelope measures (roofs/wall insulation, windows, doors), heating/cooling systems, water heating and lighting. Some RE applications (e.g., rooftop solar PV, biomass heating, solar water heating) could also be considered if they meet the economic criteria and are primarily used to offset the building's electricity/fuel use (rather than to sell to the grid). A limited amount of funds (10% maximum) could be allocated for non-EE measures (e.g., rewiring, minor structural repairs, painting, seismic safety, etc.).

Component 2. Technical Assistance and Implementation Support (US\$15 million, including US\$5 million CTF grant). While the Energy Efficiency Law and various regulations provide a strong basis for EE in the public sector in Turkey, additional efforts are required to refine secondary legislation and provide the necessary support for Project implementation to ensure its sustainability. This component would support various TA, which may include: (i) project development costs for early subprojects, such as marketing and outreach, energy audits and designs, bidder training, supervision and monitoring, measurement and verification protocol, contract templates, etc.; (ii) longer-term training of various market actors (e.g., Ilbank, energy auditors, design firms, construction companies, ESCOs, commissioning inspectors) to ensure adequate technical competencies and learning lessons from early subprojects; (iii) development of Ilbank's operations—e.g., through standard legal agreements, market studies, marketing, databases and case studies, tender and audit templates, environmental assessments, post-project inspections, etc. and support its program management, technical and fiduciary capacities; (iv) review of budgeting rules to refine its legal agreements and to cover

¹ Proposed eligibility criteria include: (i) buildings must be owned by (or assigned to) the municipal government (excluding publicly-owned enterprises, private buildings with public agency tenants); (ii) buildings must be structurally and seismically sound, not had a full EE renovation in the past 10 years, and be at least 5 years old; and (iii) buildings must not have any plans for office moves, closure or privatization. Per Bank requirements, some buildings related to defense or police (e.g., prisons) may not be eligible. The municipality must also show financial/energy bill payment discipline and agree to train staff on proper operations and maintenance of the new systems.



central government buildings; (v) assessment of public procurement rules related to energy efficient equipment and services (e.g., ESCOs) and development of appropriate procurement guidelines; (vi) development of a business plan for a second phase of the program (2025-2030), which could include all public sector investments (e.g., central government buildings, public lighting, water, etc.); and (vii) other policy and program support (e.g., support with implementation of the Energy Performance in Buildings Directive, benchmarking of energy use in public buildings, development of full national building stock inventory, design of additional incentive schemes for EE in buildings, design of incentive and recognition programs for EE in public agencies and municipalities, update building material standards, including environmental, fire and health safety, strengthen educational programs for building designs, energy audits, renovation designs, construction standards, etc.). Some of the TA activities are envisaged to be administered by MENR given that policy aspects are outside the purview of Ilbank. The CTF grant funds would allow Ilbank to cover some of its initial higher operating costs while it learns the new business. However, by Year 3 or 4, Ilbank must be able to cover all its operating costs from fees to be sustainable.

SAFEGUARDS

A. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

Project has a national scope and will be available to all municipalities in Turkey. Exact locations of the sub-projects will not be known during the project preparation and appraisal stages. Site specific safeguard issues will be addressed during the sub-project's ESMP/ESMP checklist stage.

B. Borrower's Institutional Capacity for Safeguard Policies

The project will be implemented by IlBank, which has over seven years of experience in implementing Bank-financed operations. IlBank has ample experience in applying Bank environmental and social safeguard policies. However, energy efficiency is a new sector for Ilbank since their previous experience with applying WB safeguard policies were mainly relevant to municipal water infrastructure projects. Due to lower environmental and social impacts compared to large scale municipal infrastructure projects, it is expected that Ilbank will be able to manage low/moderate risk public building energy efficiency projects with support from WB.

C. Environmental and Social Safeguards Specialists on the Team

Sanjay Agarwal, Social Safeguards Specialist
Esra Arikan, Environmental Safeguards Specialist

D. Policies that might apply

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	In general, environmental impacts from the project are expected to be mainly positive, by considering energy consumption reduction, which has direct linkage to decrease in GHG emissions of Turkey. Emission reduction of pollutants such as sulfur dioxide, nitrogen oxides and dust and/or reductions in emissions of greenhouse gases such as carbon dioxide



are major environmental benefits of energy efficiency project. The activities defined under Component 1 of the project include energy efficiency upgrades in municipal government buildings, which may require small scale construction works in existing public buildings. In this respect, no new construction is expected, and therefore no new land will be permanently used or converted. Environmental impacts will be limited with noise, dust generation, vehicle emissions, waste management and workers health and safety. Impacts expected to be temporary and easily manageable. In this regard, project is defined as Category B under OP 4.01 and an Environmental and Social Management Framework (ESMF) is suggested as Environmental and Social Management instrument since the exact sub-projects will not be fully identified during project preparation stage.

ESMF will cover the estimated impacts for small-scale construction, renovation, retrofitting and installation works relating to the activities planned under this component. The ESMF will include a type of checklist Environmental and Social Management Plan (ESMP) which is tailored for building rehabilitation and renovation activities.

ESMF and sub-project ESMPs will mainly address i) establishing and adhering to general good housekeeping, ii) emission (including dust, noise, etc.) control, iii) workers health and safety, iv) use of non-toxic materials, and v) proper waste management as well as hazardous waste management. Waste and hazardous waste management in building renovation and energy efficiency works are critical since they may include handling and disposal of asbestos containing material (ACM), use and disposal of lead based/containing paint, disposal of mercury containing compact fluorescent lamps and other fluorescent bulbs, etc. Turkey improved its environmental management legislation on hazardous waste management during the EU acquis phase, therefore it is not expected that there will be major gaps to fulfill WB safeguard standards. Turkey licensed several facilities as temporary and final disposal (incinerators, etc.) sites for hazardous wastes. In



addition, there are licensed hazardous waste recovery sites (waste oil, accumulators, etc.). The ESMF will include an assessment section on availability and capacity of such facilities to be used as waste disposal sites.

The sub-project ESMPs will be a part of the bidding documents and subsequently become part of the construction contract.

No category A-type subprojects nor category A-type activities will be implemented within the project.

In general, the project's social impacts are expected to be positive, since the energy efficiency upgrades in municipal government buildings will contribute to the creation of 'green jobs' and lead to better working conditions and higher comfort levels for staff and users of the retrofitted buildings (e.g. in terms of heating, window sealing, air, and light quality). Improving energy efficiency in local government facilities and operations is expected to lead to several positive social benefits, such as lower energy costs, economic benefits through job creation and market development, better overall working environment in municipal buildings and demonstrated leadership in energy efficient investments by municipalities. No significant negative social effects are anticipated as part of this project, as none of the investments supported are expected to have any large-scale, significant and/or irreversible negative impacts, nor is any land acquisition or displacement of people or economic activities planned. Since the reconstruction works will be carried out in existing facilities used by members of the municipality, there will be a temporary transitional impact for these users. This impact can be minimized through thorough, two-way communication with the management of the building (e.g. to minimize work disruptions for the users as much as possible) and through the proactive provision of information to users.

The ESMF will detail envisaged measures for carrying out public consultations, ensuring public safety (e.g. traffic or pedestrian safety) and putting in place a grievance redress mechanism to respond to possible



		end user complaints linked to the energy efficiency upgrades (e.g. noise or dust due to the construction works).
Performance Standards for Private Sector Activities OP/BP 4.03	No	
Natural Habitats OP/BP 4.04	No	Project only involves small scale construction/rehabilitation works in existing public buildings. No impacts are foreseen on natural habitats.
Forests OP/BP 4.36	No	Project does not involve any activities which will trigger this policy. Project only involves small scale construction/rehabilitation works in existing public buildings.
Pest Management OP 4.09	No	Project will not involve any land clearing or relevant use of pesticides. Neither it will involve purchasing of pesticides.
Physical Cultural Resources OP/BP 4.11	TBD	Mainly, the project will not involve significant excavations and demolition. On the other hand, some of the old municipality buildings may registered as first degree cultural asset by Ministry of Culture and Tourism. In such cases, İLBANK will prepare necessary reports and obtain the relevant permit from related institutions of Ministry of Culture and Tourism.
Indigenous Peoples OP/BP 4.10	No	There is no indigenous people identified in Turkey.
Involuntary Resettlement OP/BP 4.12	No	İlbank will ensure that: (i) the buildings selected by the municipalities will not require land acquisition to carry out the energy efficiency retrofits; (ii) the energy efficiency retrofits will not impact the public buildings users negatively through possible loss of income or assets; (iii) there are no other issues (pending court cases, legacy issues etc.) that may trigger OP 4.12 on the lands acquired previously which are used for this project. As a part of its due diligence, the World Bank will request the borrower to screen, through a checklist, each building to justify that there are no prevailing conditions to trigger OP 4.12, and that all buildings concerned by the reconstruction works are publically owned and allocated for municipalities. Any municipal building that would require land acquisition and thus trigger OP 4.12 will not be eligible for energy efficiency retrofits. Consequently, OP 4.12 has not been triggered.
Safety of Dams OP/BP 4.37	No	The Project will not finance construction or rehabilitation of any dam. The project is also not dependent on any existing dam or dam under construction.



Projects on International Waterways OP/BP 7.50	No	Project does not have any activity which will have impact on international waterways.
Projects in Disputed Areas OP/BP 7.60	No	N/A.

E. Safeguard Preparation Plan

Tentative target date for preparing the Appraisal Stage PID/ISDS

Nov 16, 2018

Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing should be specified in the Appraisal Stage PID/ISDS

The ESMF will be prepared by Ilbank and will be disclosed in country and Bank's external website prior to appraisal.

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APPROVAL

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