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Boosting Energy Efficiency in Turkey

IFC AND THE CLEAN TECHNOLOGY FUND ROLL-OUT INNOVATIVE EE FINANCING MODEL FOR TURKEY'S SMES

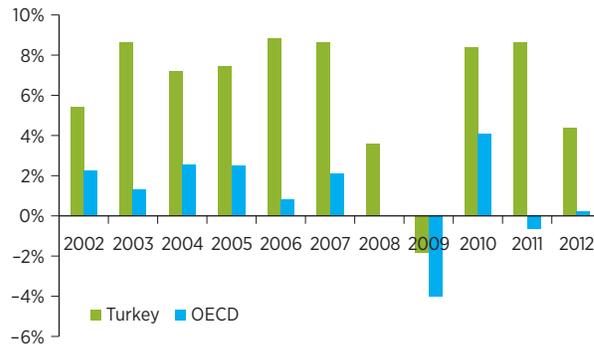
Turkey's Economic Growth Spurs Efficiency Concerns

In 2010, Kucukerler Textiles, one of Turkey's leading upholstery manufacturers, found itself under increasing competitive pressure. Kucukerler, which exports 90% of the upholstery it produces, was looking for ways to reduce operating costs though improving the efficiency of its operations. Unfortunately, local capital markets in Turkey were unable to provide long-term financing for energy-efficient equipment upgrades, leaving the company short on options.

Kucukerler was not alone in its struggle to obtain EE financing. Turkish financial institutions (FIs) have historically been reluctant to offer EE financing product lines since they associated such funding with higher transaction costs and higher risk. Moreover, FIs typically had limited internal capacity to properly assess, develop, and market financing instruments for EE. At the same time, high upfront costs for EE equipment made commercial and industrial companies, especially small and medium-sized enterprises (SMEs), hesitant to purchase such equipment outright, and a lack of information about the operational and cost benefits of energy efficient operations suppressed customer demand for EE financing.

The challenges that companies such as Kucukerler face in attracting EE financing are increasingly important in Turkey. Two decades of strong

FIGURE 1: Annual Electricity Growth Rates, 2002–2012



Source: BP Statistical Review of World Energy 2014

economic growth has generated consistently high growth rates in the country's energy and electricity usage, raising Turkey's coal and natural gas imports to some of the highest levels in the world and driving a large current account deficit that threatens the country's future economic growth.^{1,2} And even though widespread EE deployments could alleviate Turkey's energy security concerns while boosting economic competitiveness, by the late 2000s, the lack of local financing options was restricting EE market growth.

The Right Financing Model for the Right Market

As a first step to overcoming EE deployment hurdles, Turkey adopted a wide-ranging Energy Efficiency Law in 2007, laying the groundwork for a series of EE-focused policies that placed EE 'at the heart' of Turkey's energy policy.³ Two years later, Turkey moved closer towards a more energy efficient economy by prioritizing EE financing in its US\$250 million investment plan under the Clean Technology Fund (CTF). Under Turkey's CTF plan, three Multilateral Development Banks (MDBs)—the European Bank for Reconstruction

and Development (EBRD), the International Finance Corporation (IFC), and the World Bank—spear-headed several initiatives to catalyze climate-smart investments and mobilize significant amounts of private sector funds to ultimately reduce GHGs and drive sustainable economic growth in Turkey.⁴

One of the first initiatives developed under Turkey's CTF plan was IFC's Commercializing Sustainable Energy Finance Program (CSEF), financed with roughly US\$21 million of CTF funds "blended" with almost US\$100 million of IFC's own funds.⁵ IFC designed CSEF to increase both the supply and demand of EE financing in Turkey, thereby demonstrating the value of EE across Turkey's energy-intensive sectors, such as textile manufacturing and metal production, while developing a track record of successful investments to accelerate EE financing by local FIs.

To meet these objectives, IFC opted for an EE leasing, rather than lending, approach for end users, which was almost non-existent in Turkey at the time. Under this model, IFC provided 'blended' concessional loans to three Turkish leasing companies for the express purpose of sustainable energy financing for projects and equipment that met specific parameters (i.e. projects must reduce absolute energy consumption by at least 15%). The leasing company would then market EE financing to its current and prospective customers, predominantly SMEs. Once a customer decided to acquire EE equipment, the leasing company would purchase the equipment using CSEF funds and provide the equipment through a lease to the customer (Figure 2).

IFC's rationale for leasing as a scalable and replicable EE financing model in Turkey was three-fold— a) Leasing companies generally have an established local network of customers, including both large industrial/commercial customers as well as SMEs, and are well positioned to explain the potential benefits of new financial products to them, b) Leases allow end-use customers to keep equipment off their balance sheets, which benefits companies

¹ The International Energy Agency. (2013). *Key World Energy Statistics*. Retrieved from <http://www.iea.org/publications/freepublications/publication/KeyWorld2013.pdf>

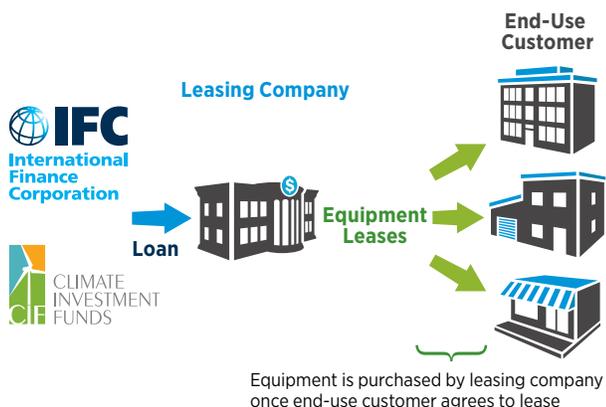
² The International Finance Corporation. (2013). *Climate-Smart Business: Investment Potential in EMENA*. Retrieved from <http://www.ifc.org/wps/wcm/connect/f9d1938041aa9f1f8e23bf8d8e2dafd4/Investment+Potential+in+EMENA.pdf?MOD=AJPERES>

³ The International Energy Agency, (2013). *Energy Policy Highlights*. Retrieved from http://www.iea.org/publications/freepublications/publication/energy_policy_highlights_2013.pdf

⁴ Climate Investment Funds. (2009). *Clean Technology Fund Investment Plan for Turkey*. Retrieved from http://www.climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/CTF_Turkey_Investment_Plan_01_16_09_web.pdf

⁵ By deploying concessional funds, such as those provided by CTF, MDBs can help mitigate risk, reduce market barriers, and improve the economics of climate-smart projects.

FIGURE 2: Energy Efficiency Leasing Model under CSEF



such as SMEs with heavy debt loads and/or limited investment funds, and c.) Turkish commercial banks were often unable to provide loans with long tenors, which are required by many EE/RE projects.

Additionally, IFC provided each of its leasing company clients with parallel advisory services and/or technical assistance to help the leasing companies

build their internal capacity to successfully identify, assess, and market a portfolio of leases specifically for EE. The final goal was to equip these client companies with the tools required to scale EE financing portfolios on their own over the long-run.

Strong Start with Immediate Impact

In the first four years of operations, leasing company clients have invested approximately US\$100 million of CSEF funds in over 50 EE projects, including energy efficient yarn manufacturing equipment for SME textile producers and production line upgrades for an automotive company. In aggregate, CSEF is expected to directly mitigate over 200,000 metric tons of CO₂e **a year**, equivalent to the emissions from over 98,000 metric tons of burned coal or over 86 million liters of consumed gasoline.

CTF’s concessional financing, along with IFC’s advisory services, proved to be critical in spurring CSEF’s leasing company clients to identify EE opportunities, develop financing products, and ultimately market and finance leases for EE equipment

Turkish Leasing Companies under CSEF

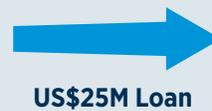
	 YapıKredi Leasing	 FINANS LEASING	 İş Leasing
Year	2010	2010	2013
\$ Amount	\$20M—IFC Funds \$5M—CTF Funds	\$40M—IFC Funds \$10M—CTF Funds	\$35M—IFC Funds \$5M—CTF Funds
Objective/ Results	<ul style="list-style-type: none"> Build on Yapi Kredi Leasing’s (YKL) existing corporate relationships and customer base to expand YKL’s EE lending IFC also supported training for an estimated 25–30 credit and marketing officers to further build YKL’s internal capacity for SE leasing 	<ul style="list-style-type: none"> Develop new lending opportunities for Finans Leasing to its customers, including SMEs IFC also supported the training of 40 credit and marketing officers to further build Finans Leasing’s internal capacity for sustainable energy (SE) leasing 	<ul style="list-style-type: none"> Grow IS Leasing’s SE leasing business for industrial and commercial customers IS Leasing will continue to on-lend and build sustainable energy financing portfolio until it fully utilizes the \$40 million in allocated funds.

to end-use customers. Many of CSEF's end-use customers, including SMEs, are currently benefitting from operational cost reductions and an improved environmental footprint thanks to EE equipment leased under the program (see Project Spotlight).

CSEF's combination of both an innovative financing model as well as comprehensive advisory services helped guide FIs through the early stages of developing and designing new financial products. This has catalyzed an increase in both the supply and demand of EE leases, enabling the Turkish EE leasing market to progress from concessionally-driven

to one that finances EE on purely commercial terms. In fact, in 2013, IFC reduced the amount of concessionality of its CSEF loan to IS Leasing by over 60% compared with its 2010 loans to Yapi Kredi Leasing and Finans Leasing. And just two years later, in 2014, IFC provided a US\$96 million EE/RE loan to Yapi Kredi Leasing on fully commercial terms. This transaction is the largest loan provided by IFC to the leasing sector globally. As Turkey's EE market continues attracting these types of significant capital inflows for EE/RE solutions, local companies such as Kucukerler Textiles will have a better chance of finding a competitive edge in the global marketplace.

Project Spotlight—Yapi Kredi Leasing



Under CSEF, YKL's EE finance portfolio exploded from less than US\$20 million to **over US\$200 million in just two years** and is expected to **reach US\$750 million by 2015**. YKL credits **IFC's financing and advisory services** provided under CSEF for increasing the company's internal capacity to offer EE financing.

Kucukerler Textiles, an upholstery manufacturer, leased four energy efficient weaving machines from YKL. This EE equipment alone **reduced the company's energy costs by 20%**.



Toskar, producer of machines that make furniture and door joints, integrated leased EE upgrades that **increased output by 50%** and **cut the firm's energy costs by 20%**, allowing the firm to stay competitive in the global marketplace.

