

# Investing in Residential Energy Efficiency Programs in Mexico



## Background

Mexico ranks 12th in the world in terms of total green house gas (GHG) emissions and is the second largest emitter in Latin America. In its national strategy for climate change mitigation and adaptation, Mexico has committed to cutting GHG emissions in coming years. As part of this program, Mexico has launched an energy efficiency strategy that targets power consumption in the residential sector by increasing the efficiency of household lighting and appliances. Large-scale lighting substitution and appliance replacement programs could reduce the residential electricity sector's carbon footprint by over 10 percent in the next few years.

## Financial Objectives

In order to increase the penetration of more efficient technologies in the residential electricity sector and implement the scrapping of old appliances, public intervention coupled with innovative financing was needed to correct market failures and catalyze investment. This project's viability was dependent on securing low-cost financing and providing monetary incentives to encourage the participation of low-income consumers in the adoption of energy efficient compact fluorescent lamps (CFLs) and appliance renewal and to promote future investment by other financiers in full sector transformation.

## The Structure

The customized financing package for the Mexico Efficient Lighting and Appliances Project involved blending a US\$50 million loan from the Clean Technology Fund (CTF) under concessional terms with a US\$250 million IBRD loan and a US\$7 million Global Environmental Facility (GEF) grant. Funds are being channeled through NAFIN, a state-owned bank, and through the federal government. The project may also generate future carbon revenues, which could be reinvested in the transformation initiative.

The co-financing package provides financial incentives to consumers in the form of free CFLs for the replacement of inefficient incandescent bulbs, and instant discount vouchers and low-cost loans to reduce the cost of replacing inefficient appliances.

## Highlights

- This co-financing scheme allows the Bank, CTF, and GEF to jointly support Mexico's National Climate Change strategy.
- A broader group of consumers will gain access to energy efficient lighting and appliances through financial incentives.
- The concessional financing package will help reduce more emissions than what would have otherwise been possible.

Financing at concessional terms facilitates greater consumer participation, which is needed to demonstrate the merits of the residential energy efficiency program and thus enable full market transformation.

	IBRD Loan	CTF Loan	GEF Grant
Amount	US\$250 m	US\$50 m	US\$7 m
Maturity	12 years	20 years	n/a
Repayment	Bullet	Amortizing from year 10	n/a
Interest Rate	6M LIBOR + variable spread	0.75% annual service charge	n/a

## Outcome

The blending of concessional funding from different sources enlarges the pool of low-cost financing available and addresses several of the financial barriers associated with these investments to facilitate Mexico's path to a low carbon economy. Furthermore, the co-financing scheme allows the Bank, CTF and GEF to jointly support Mexico's National Climate Change Strategy and partner with Mexico to reduce more emissions than what would have otherwise been possible without this type of financing.

Associated emissions reductions are estimated at 5.14 million tCO<sub>2</sub>e (tonnes of CO<sub>2</sub> equivalent). Potential project electricity savings of 10 TWh (terawatt-hour) over the five-year implementation period represent about 17% of Mexico's 2009 residential electricity consumption and exceed Paraguay's estimated 2009 total electricity consumption.

**Co-Financing Package:**

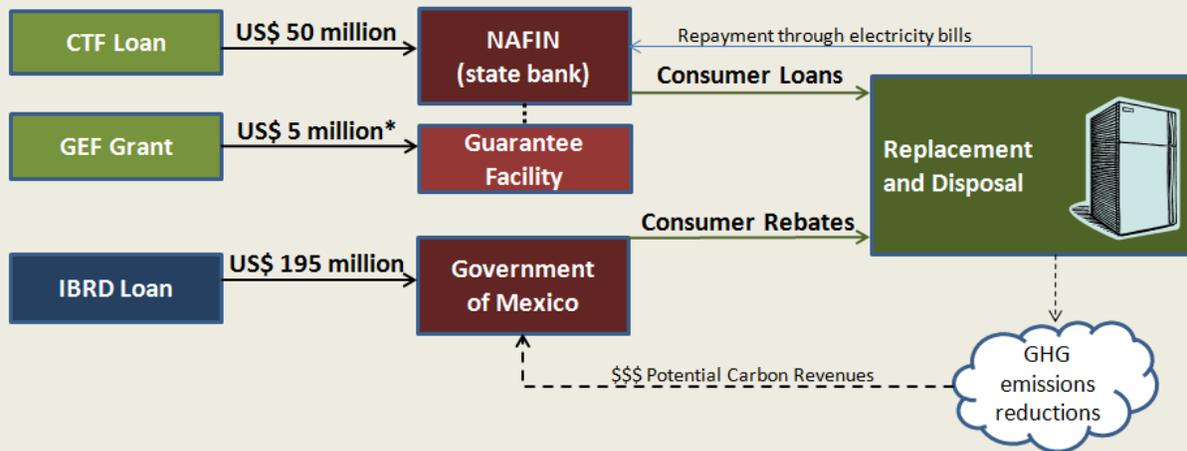


Figures may not total due to rounding.

**Light Bulb Replacement Component:**



**Appliance Replacement Component:**



\*Another US\$ 2 million in grant funding from GEF partially funds the technical assistance component of this project.

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