

## International Energy Efficiency Financing Facility (iEEFF)

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The **International Energy Efficiency Financing Facility (iEEFF)** is a single-purpose facility financing urban energy efficiency investments. iEEFF plans to commence operations focused on conversion of traditional urban street lighting technologies (e.g., mercury vapor and sodium vapor lamps) to more efficient LEDs. Based on this experience, iEEFF anticipates broadening its portfolio to include other urban energy efficiency investments that have energy savings sufficient to offset the cost of financing (e.g., investments in the building, district heating/cooling, water utilities, and transport sectors).

Aggregating financing of energy efficiency investments of multiple cities and activities will enable iEEFF to issue large-scale, liquid, investment-grade bonds thus accessing what is typically the lowest-cost source of funding in domestic and international financial markets.

The facility aims to provide financing for participating cities or other entities on terms as good or better than they could achieve on their own and enable them to access financing at scale for energy-efficiency installations and retrofits.

Key to the appeal of these investments is that they can be paid for, and the debt to iEEFF repaid, using savings from the avoided energy cost, with little or no drag on cities' current budget resources. At the end of a short payback period, cities can expect electric bills to drop, often by 50% or more in the case of public street lighting.

The remainder of this Interim Project Description provides more details regarding the operation of iEEFF in the urban street lighting sector. Operations in other sectors would involve similar considerations.

### Eligible Cities, Projects and Borrowers

#### Eligible cities

Cities in both developing and developed countries meeting threshold standards in three areas:

- **Scale** - Cities interested in lighting installation or retrofit programs of USD [10] million or more (unless participating through a government agency or project aggregator – see below).
- **Financial capacity** – Cities with municipal finances strong enough such that a borrowing from iEEFF, when included in its diversified portfolio of loans to other eligible cities, can support an investment-grade credit rating for iEEFF.
- **Implementation capacity** - Cities with the capacity to organize and execute a municipal street lighting LED conversion program and capture the energy savings.

iEEFF also could finance national or subnational agencies engaged in aggregating lighting retrofits.

#### Eligible projects

Municipal street lighting projects that:

- Reduce electricity consumption for municipal street lighting;
- Achieve reductions sufficiently large in relation to the cost of the eligible program that the value of the energy saved offsets the cost of a financing based conventional, investment-grade debt obligations of similar duration; and
- Meet technical requirements adequate to qualify for long-term performance warranty.

**Eligible borrowers**

Governments, their agencies and instrumentalities, or private sector contractors, including:

- City governments as direct obligors;
- Governments of nations or provinces in which cities undertaking energy efficiency projects are located;
- Public utilities, where these may be the owners and/or operators of street lighting infrastructure;
- Specialized public sector agencies or instrumentalities at the municipal, provincial or national level; these may include specialized energy- or energy-efficiency agencies, project "aggregators" or investment vehicles; and,
- Private sector contractors or others engaged in implementing cities' street lighting projects, subject to appropriate legal and financial arrangements to support the obligation to iEEFF.

**Sponsorship, Organization and Capital Structure**

**Sponsorship and organization**

**Sponsorship and voting shareholding** - iEEFF will be established at the instance of one or more shareholders of the World Bank.

**Form and venue of organization** - iEEFF will be organized in a form and under the laws of a jurisdiction that is well-accepted by institutional investors due to the robustness of its legal and regulatory arrangements with respect to finance and markets.

**Financial and operational management** - iEEFF will outsource management of its finances and operations to The World Bank Group. In addition, The World Bank Group will provide technical assistance on project implementation upon request.

**Capital structure**

**Equity investment** – If needed, iEEFF will receive equity investments from other investors in an amount sufficient to support a credit rating of single-A or better for each bond issue - estimated at 5-10% of the total assets of the facility.

**Debt** - iEEFF will issue bonds to fund its lending to eligible borrowers. Borrowings will supplement equity investments and comprise the largest component of the capital structure, enabling iEEFF to maintain an amount of liquid reserves adequate to meet current expenses as well as other required disbursements. Debt issuance may be against the credit of the facility or against specific loans receivable in its portfolio.

**Credit ratings** - iEEFF will obtain credit ratings for its bonds from at least two of the three major ratings agencies (Moody's, S&P and Fitch), aiming to qualify for single-A or equivalent rating for its medium- and long-term bonds.

**iEEFF Products and Services**

**Energy efficiency loans**

**iEEFF will make loans** to eligible borrowers to provide financing for cities' LED lighting retrofits and other city energy efficiency investments. Loan terms could vary but would be broadly consistent in maturity and amortization with the energy cost savings associated with the retrofit. Loans could be at fixed or floating interest rates at the option of the borrower. Pricing would be consistent with or slightly better than borrowers could achieve borrowing directly in the market. iEEFF's goal is to make available loans in USD and other major currencies for which there exists a reasonably liquid currency swap and foreign exchange markets.

<b>Credit enhancements</b>	<b>iIEFF can facilitate third party credit enhancements</b> to assist cities that may require it to achieve credit eligibility.
<b>Performance warranty</b>	<b>iIEFF will engage through competitive tender a qualified provider of warranty coverage for the technical performance of eligible projects;</b> preliminary indications are that engaging such a designated provider likely would reduce the cost of warranty coverage to participating cities.
<b>Technical assistance</b>	<b>iIEFF can make technical assistance available upon request</b> to participating cities and project participants, covering the design and implementation of LED retrofit projects.

## iIEFF Finances

<b>Overview</b>	<p>The facility is designed to make loans available as cities develop their energy-efficiency projects, issuing bonds in the debt capital markets at intervals as necessary to make disbursements and maintain liquid reserves.</p> <p>As a preliminary test of the iIEFF value proposition, the World Bank is modeling the financial dynamics of the facility. The analysis has been informed by, and is consistent with, current standards applied by major rating agencies and the current regulatory framework with respect to bank capitalization. While the analysis assumes no application of third-party credit enhancement, it does include structural elements (including equity capital and adequate reserves) consistent with achieving an investment grade rating.</p> <p>The analysis concludes that:</p> <ul style="list-style-type: none"> <li>• iIEFF can reach a single-A credit rating with a modest amount of equity investment</li> <li>• Even with the modest proposed equity investment, iIEFF can finance a diverse array of municipal borrowers on competitive terms.</li> </ul> <p>These conclusions do not take into account bond-market “scale economies” (i.e., the value the market attaches to liquidity and replicability) or the franchise value associated with official-sector sponsorship and the World Bank’s involvement as financial manager. These have proven highly valuable in other contexts. Furthermore, the analysis does not value the fact that iIEFF financing <i>de facto</i> would be covered by the avoided cost associated with LED retrofit investment, and thus would not increase cities’ net liabilities.</p>
<b>Bond issuance</b>	Successive bullet-maturity issues of USDeq 250 million or more; medium-term goal is for iIEFF instruments to be included in major bond-market indices.
<b>Underwriting, distribution &amp; secondary mkt</b>	Industry standard for large bond issues.
<b>Investors</b>	Institutional and retail investors globally.

## Summary Development and Implementation Agenda

### **Overview**

The Global Environment Facility (GEF), having engaged The World Bank as implementing agency, is undertaking development of iIEFF in collaboration with several sovereign sponsors. GEF anticipates a formal announcement of the creation of the Facility at COP-21 in Paris, at which time the facility will have received participation commitments from sponsors, investors and borrowers. This work will be facilitated through the 'Consultative Group' described below. GEF anticipates iIEFF launching its first bond issue, and providing financing to its initial group of borrowers, by the end of 2016.

### **City participation commitments**

In preparation for announcement at COP-21 of the creation of the Facility, the World Bank, in its capacity as iIEFF administrator, will solicit from potential participating cities binding applications for iIEFF financing conditioned on iIEFF's offering specified terms. Thereafter the basis of these commitments, the iIEFF development team will determine whether and on what terms to proceed with an initial iIEFF bond issue.

### **Consultative Group**

On behalf of GEF the World Bank will form – with the advice and consent of the iIEFF sponsor/s – a Consultative Group comprised of representatives of the principal categories of iIEFF stakeholders: sponsors, potential equity investors, eligible borrowers (cities and other entities), and bond investors. The Consultative Group will guide and inform iIEFF's portfolio development and strategic engagement. The first meeting of the Consultative Group expected to take place in October 2015.