



IFC

**International
Finance Corporation**
WORLD BANK GROUP

March 26, 2019

Ministry for the Environment, Land and Sea.
Directorate for Sustainable Development, Environmental Damage,
European Union and International Affairs.
Via Cristoforo Colombo, 44. 00147 Rome 00147. Italy.

Attn: Dr. Francesco La Camera, Director General.

Re: Amendment Letter No. 6 to the Administration Agreement between Italy and IFC.
Additional Contributions to IFC's Clean Energy Access Program
Trust Fund Account No. TF071518

1. Please refer to the following agreements to provide for the creation of a trust fund to finance the Clean Energy Access Program (the "Program"), identified by the trust fund name "Clean Energy Access Program Trust Fund" and by the trust fund No. 071518 (the "Trust Fund"):
 - (i) The Administration Agreement dated July 20, 2010, between THE ITALIAN MINISTRY FOR THE ENVIRONMENT LAND AND SEA (the "Donor") and THE INTERNATIONAL FINANCE CORPORATION ("IFC");
 - (ii) The supplementary agreement to the trust fund administration agreement concerning the Italian Carbon Fund Prepaid Contributions trust fund (IBRD trust fund No. TF051069) dated January 27, 2014, between the Donor and the International Bank for Reconstruction and Development (IBRD);
 - (iii) Amendment Letter No. 1 for the reduction of contribution and transfer of funds dated July 15, 2015, between the Donor and IFC;
 - (iv) Amendment Letter No. 2 for an additional contribution dated July 17, 2015, between the Donor and IFC;
 - (v) Amendment Letter No. 3 for an additional contribution dated November 24, 2015, between the Donor and IFC;
 - (vi) Amendment Letter No. 4 for an additional contribution dated March 9, 2016, between the Donor and IFC; and,
 - (vii) Amended and Restated Letter No. 5 for an additional contribution dated March 27, 2018, between the Donor and IFC.

(Collectively the "Agreement"). Unless otherwise provided, terms defined in the Agreement shall have the same meaning whenever used in this Amendment Letter.

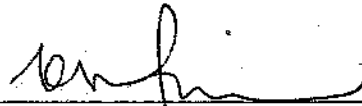
2. The Donor and IFC agree to extend the duration of the implementation of the Program to June 30, 2024. Therefore, the Donor and IFC hereby agree to replace all references to the end of implementation period from “June 30, 2022” to “June 30, 2024” in paragraphs 2.2 and 5.3 of the Agreement.
3. The Donor and IFC agree to expand the scope of the Program activities financed by the Donor’s Trust Fund. Therefore, the Donor and IFC hereby agree to:
 - a. replace in its entirety Annex B dated March 27, 2018, to the Agreement by the following annex attached to this Amendment Letter No. 6:
 - i. Annex B – Amended and Restated dated March 26, 2019, for financing the “Off-Grid Energy PPP Program in Sub-Saharan Africa”.
 - b. attach to the Agreement the following annexes, attached to this Amendment Letter No. 6:
 - i. Annex A – Supplement dated March 26, 2019, for financing the “Global Energy Access through Solar Market Development in Off-Grid and Bad Grid Sectors”; and,
 - ii. Annex C – dated March 26, 2019, for financing the “Renewable Energy Market Development in Africa”.
4. The Donor hereby agrees with IFC to contribute additional funding to the Program in the amount of **nine million United States dollars (USD 9,000,000)**. This additional contribution will be governed in all respects by the Agreement and will be allocated to finance the Program activities as follows:
 - a. Four million United States dollars (USD 4,000,000) to the “Global Energy Access through Solar Market Development in Off-Grid and Bad Grid Sectors” Program activities under Supplement Annex A dated March 26, 2019, to the Agreement;
 - b. Two million five hundred thousand United States dollars (USD 2,500,000) to the “Off-Grid Energy PPP Program in Sub-Saharan Africa” Program activities under the Amended and Restated Annex B dated March 26, 2019, to Agreement; and,
 - c. Two million five hundred thousand United States dollars (USD 2,500,000) to the “Renewable Energy Market Development in Africa” Program activities under Annex C dated March 26, 2019, to the Agreement.

5. Upon countersignature of this Amendment Letter by the Donor and submission of a disbursement request (invoice) by IFC, the Donor shall deposit the funds in one tranche as follows:

<u>Amount</u>	<u>To be disbursed to IFC on/or before:</u>
USD 9,000,000	May 31, 2019.

I would like to take this opportunity to convey our sincere appreciation to the Italian Ministry for the Environment Land and Sea for this generous support. We shall keep you informed on the progress we make in utilizing these funds in supporting our partnership and we look forward to a continued great collaboration between our institutions.

Very truly yours,
INTERNATIONAL FINANCE CORPORATION



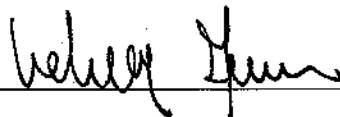
Karin Finkelston
Vice-President

Partnerships Communications and Outreach

- Attachments: 1. Annex A – Supplement dated March 26, 2019, for financing “Global Energy Access through Solar Market Development in Off-Grid and Bad Grid Sectors”;
2. Annex B – Amended and Restated dated March 26, 2019 for financing “Off-Grid Energy PPP Program in Sub-Saharan Africa”; and,
3. Annex C – dated March 26, 2019, for financing “Renewable Energy Market Development in Africa”

Accepted and Agreed:

THE ITALIAN MINISTRY FOR THE ENVIRONMENT LAND AND SEA

By: 

Name: Dr. Francesco La Camera

Title: Director General

Date: 26 March 2019

TF071518

ANNEX A
Supplement dated March 26, 2019

TO THE ADMINISTRATION AGREEMENT
dated July 20, 2010

BETWEEN

THE GOVERNMENT OF ITALY AS REPRESENTED BY
THE MINISTER FOR ENVIRONMENT LAND AND SEA

AND

INTERNATIONAL FINANCE CORPORATION

FOR

THE FINANCIAL SUPPORT OF

ADVISORY SERVICES IN GLOBAL ENERGY ACCESS THROUGH
SOLAR MARKET DEVELOPMENT IN OFF-GRID AND BAD GRID
SECTORS

UNDER THE CLEAN ENERGY ACCESS PROGRAM

Building on the work to date, the expanded Italy-IFC Partnership will work with companies with disruptive new solar-based technologies and innovative business models in order to catalyze the next stage of market development. Using the Lighting Global toolkit of programmatic support, as well as new approaches more appropriate to address the challenges of the emerging frontier market opportunities, IFC will seek to catalyze market development for solar energy services that will accelerate the transition to low carbon, climate resilient economic development. Within this wide geography, the regional and country level focus of the work will be determined by market conditions that enable appropriate testing and replication, and which provide a reasonable chance

of achieving success. Thus, the Partnership will focus in markets where conditions will be adequate to attract needed private sector participation and investment. IFC's capacity to operate in the market will also be an important determinant of geography. In undertaking this work, IFC will actively seek opportunities to leverage Italian strategic partnerships and bilateral agreements but will not be limited to work in those countries.

The scope of activities under Annex A, undertaken as programmatic efforts to support the development of the off-grid and bad grid distributed solar markets, have been supported with a total of \$26 million contribution to date, reflected in Amendments 1-4. With this amendment 6, this work will continue. IFC will continue to manage those funds to maximize impact under Annex A activities. In addition, Amendment 6 expands the resources available for Annex A activities by an additional \$4 million, enabling IFC to take that work to the next level in order to push the frontier of off-grid and emerging "bad grid" distributed solar market development. These activities are intended to:

- 1) *Extend the reach of solar energy services to more people (including those living off the grid and those connected to a dysfunctional grid), with a larger range of services (to enable productive uses of energy and support economic development), and*
- 2) *Underpin all of that work by protecting the market against poor quality products.*

While the use of those funds, consistent with the operating principles of the Trust Fund management, will depend upon the leverage opportunities that emerge downstream, the notional allocation below will guide the Trust Fund management (with the understanding that these are only targets and will be deployed flexibly).

Component 1: Expanded off-grid energy services delivery based on solar energy (Estimated deployment of additional funds: \$1 million)

The general focus of this work is to achieve higher level energy access (Tier 2-5 on the SE4All Energy Access scale) in off grid markets to enable access to higher levels of energy service, and productive use applications to generate income and promote livelihoods.

- a. Increased household energy services (moving households up the energy ladder) through adoption of super-efficient DC appliances, including cooling, refrigeration, information technologies (computers), internet connectivity;
- b. Increased modern energy access for productive uses; driving green growth through solar motors, dryers, and cold chain refrigeration; and,
- c. Increased productivity in the agriculture sector through adoption of solar irrigation and related improved agri practices;

Component 2: Addressing the needs of the “Poorly electrified population” – (Estimated deployment of additional funds: \$3 million)

The primary objective is to reduce the loss in economic productivity, the large energy expenditures on diesel and gas, and the huge emissions of greenhouse gas related to diesel/gas generators which are currently the standard solution in countries where the existing grid is highly unreliable.

- a. IFC will work with companies with advanced battery storage technology and smart inverters coupled with solar, as well as local service providers able to deliver and service these systems in markets with a dysfunctional electric grid to develop the market for advanced battery storage and solar to replace diesel generators and increase the availability of reliable, affordable, clean energy services. Pilot programs will provide initial learning. The Partnership will seek to build on those pilots through replication in multiple markets. The ultimate long-term objective of the Partnership is to build scale through market mechanisms and replication by others;
- b. The Partnership will engage development partners, investors, and private companies in collaborative efforts to build the market. Initially, the Partnership will play a key thought leadership role in bringing attention to the problem of fossil fuel based back up generators (BUGS), the potential of solar + storage technology to replace those BUGS, and build collaborations to accelerate the transformation of the market; and
- c. The Partnership will support global, regional and country level programs and projects. These will be designed to address the key barriers impeding adoption of new technology which is economically cost effective and provides quality energy services while reducing environmental, health, and economic costs associated with the fossil fuel-based privately-operated generators that currently proliferate. Through testing, replication, and scale up, the Partnership will seek to accelerate adoption of solar + storage solutions.

Program Budget

The table below provides a breakdown of the estimated budget and prospective potential estimated uses of the additional IMELS funds (provided in 2019) for the activities under Annex A of the Agreement.

Program Activities (off-grid solar)	
- Market scoping and project development – global, Asia, Africa, new markets	235,000
- Country level program implementation – incl. staff, consultants, travel	235,000
- Lighting Global program implementation activities – incl staff, consultants, travel, publications	480,000
- Administration Fee 5%	50,000
Subtotal – Off grid solar market development	1,000,000
Program Activities (bad grid/solar + storage distributed generation)	
- Market scoping and project development – global, Asia, Africa, new markets	760,000
- Country level program implementation	1,615,000
- Publications and global knowledge products and convenings	475,000
- Administration Fee 5%	150,000
Subtotal – Bad grid / distributed storage + solar market development	3,000,000
TOTAL	US\$4,000,000

TF071518

ANNEX B
Amended and Restated on March 26, 2019

TO THE ADMINISTRATION AGREEMENT
dated July 20, 2010

BETWEEN

THE GOVERNMENT OF ITALY AS REPRESENTED BY
THE MINISTER FOR ENVIRONMENT LAND AND SEA

AND

INTERNATIONAL FINANCE CORPORATION

FOR

THE FINANCIAL SUPPORT OF

AN ADVISORY SERVICES OFF-GRID ENERGY PPP PROGRAM
IN SUB-SAHARAN AFRICA

UNDER THE CLEAN ENERGY ACCESS PROGRAM

Introduction

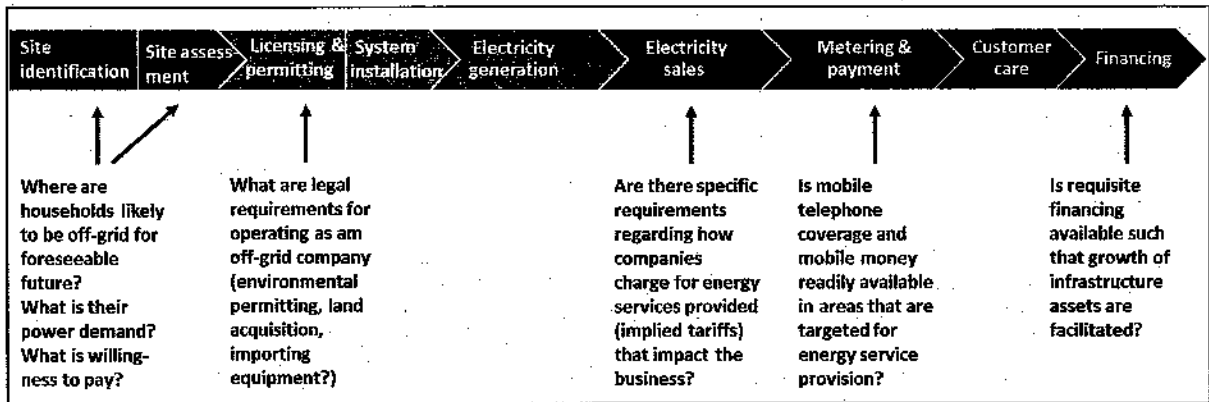
In Sub-Saharan Africa (SSA), over 600 million people do not have access to electricity,¹ and extending the grid to serve dispersed rural populations is very costly and beyond the reach of public finance. Private off-grid energy solutions can play an important role in achieving universal energy access.

While there is significant interest from and on-going innovation by the private sector in this space, with enterprises referred to as distributed energy services companies (DESCOs) offering stand-alone solar home systems (SHS) or setting up mini-grids, a purely market-based approach faces a number of constraints in terms of scaling up. Issues that appear along the life-cycle (or value chain) of a typical off-grid project include the following:

- (i) Lack of geographical data on where off-grid populations are located;
- (ii) Limited data on demand for the quantity and quality of energy service that off-grid solutions are generally well-placed to deliver;
- (iii) Lack of clarity on where central grids are likely to be extended over the short- to medium term;
- (iv) Lack of clarity on the legal and regulatory requirements applicable to companies developing and operating off-grid solutions, ranging from licensing and environmental permitting, to import duties and electricity tariffs, to eventual grid interconnection;
- (v) Concerns about applicable tariff regimes, where off-grid solution business models tend to be very different from large, centralized systems based on conventional energy; and
- (vi) Limited 'facilitating infrastructure', such as mobile money to secure payment in remote areas and availability of affordable local currency financing.

¹ International Energy Agency, 2014, Africa Energy Outlook

Figure 1: Illustration of type of risks that private companies face along the value chain



These and other uncertainties mean that project developers cannot assess whether off-grid solutions present an attractive proposition for expanding their businesses. Consequently, promising technologies and private sector business models that could potentially provide high-quality energy services are not currently being leveraged to meet latent customer demand in off-grid areas.

Well-structured and properly incentivized public-private partnerships (PPPs) could provide the clarity that private sector players need to engage at scale in the energy access market. Such an approach would allow the public sector to leverage private sector capital and expertise, by clearly defining the market to be served, contributing appropriate funding to cover viability gaps, and absorbing certain risks. PPPs developed under this approach could take various forms, depending on the public sector's willingness and ability to effectively allocate and share risks and leverage public funding.

In this context, IFC has structured a comprehensive off-grid energy PPP program, that will work with key stakeholders in the public and private sectors to address critical barriers hampering the reach of SHS and mini-grid DESCOS in Africa. IFC provides advisory both to individual firms, and at the sector and market level, where the focus is on accelerating market development and fuelling private sector growth. Our experience in challenging markets, long-term commitment and deep technical and market expertise provide unique insight and innovative solutions.

Given the complexity of the topic, significant time and sustained effort will be needed to have meaningful impact. IFC has therefore established a partnership with the Italian Ministry of Environment, Land and Sea (IMELS) to ensure that the program benefits from a sustainable source of funding, along with strategic and technical oversight and advice. This document outlines the program's objectives, components and activities, budget and timeline, program governance, potential focus countries, and potential impact.

Off-Grid PPP Program objectives

The overall objective of the program is to increase access to modern, off-grid energy services in sub-Saharan Africa by using innovative PPP approaches to support the scale up of DESCOs. As such, the program aims to structure and support the implementation of various PPP models designed to attract private sector participation in the “off-grid market” using renewable energy sources.

These PPP models are to be structured to provide for risk-adjusted returns to attract serious private sector players, while ensuring that public sector financing contributions are economically efficient, and risk is allocated in an appropriate way between the parties. These models should also be replicable across markets in order to deliver maximum socio-economic impact for energy poor customers, governments and development partners. Depending on the country context, different PPP approaches and models may be relevant. These could range from private-sector engagements in a purely publicly-owned infrastructure asset, to models where the private sector engagement increases in both scope of responsibility and financial risk allocation, through to models where the private sector is solely responsible for implementing and managing the infrastructure.

IFC’s approach emphasizes supporting the development of the market, rather than subsidizing most or all of the capital costs of the off-grid energy solution. The focus is on (i) helping to identify attractive markets, thus reducing development costs for private entities; (ii) removing or significantly reducing other risks (e.g. grid encroachment, unclear regulatory and legal frameworks, etc.), and thereby implied costs, that would otherwise be added to both the capital and operating structures of companies; and (iii) catalyzing affordable financing. Collectively, this approach is intended to sufficiently reduce the viability gap of new technologies and associated business models, and attract high quality developers to a country. The objective is that in future “scale up” stages (beyond the scope of this program), improved market maturity will mean that private companies are better positioned to assess commercially-viable energy access opportunities on their own.

Off-grid energy PPP Program Components & Activities

The program will focus on the following components: A) Upstream work, B) Structuring competitive tenders, C) Transaction Advisory support, and D) Implementation support. While activities under each of these components will vary based on the country context, they could include the following:

A) Upstream work

- i. Generating critical data to attract high-calibre international and local off-grid energy solution providers. This would include conducting market assessments, which may draw on geographical information systems regarding population density, estimation of energy service demand, willingness to pay, customer segmentation, availability and use of mobile money systems, etc.;

- ii. Providing support to establish an institutional and regulatory framework for commercially-oriented, sustainable off-grid solutions that can be scaled up; and
 - iii. Outlining a set of economically efficient incentives appropriate to the state of maturity of the market.
- B) Structuring competitive procurement of PPPs
- i. Providing advisory support to design country-specific PPP agreements. This would include defining service areas based on geospatial information and developing standard documentation to reduce transaction costs and ensure a fair and bankable allocation of risks between the government and private sector developers; and
 - ii. Structuring robust financing packages that blend commercial and concessional financing to reduce the viability gap between expected and actual returns on investment, as needed;
- C) Transaction Advisory support
- i. Providing transaction advisory services to support the competitive selection of private operators that will design, co-invest, construct, operate and maintain the electrification infrastructure for a minimum fixed period. Under this activity, private operators would be assessed and selected based on criteria such as technical performance, number and service tiers of electricity connections, economic and financial viability of business plans, concessional financing requirements, and experience in providing high quality rural services;
- D) Implementation support
- i. Providing operational and technical support to ensure that the partnerships stay on track to deliver results; and
 - ii. Setting up systems to ensure that the expected performance of operators selected to participate in the market is met, and that monitoring can be done by relevant public entities.

Throughout the program, the IFC will engage closely with governments, power utilities, private sector players and development partners, to ensure that activities are tailored to countries' specific needs. IFC expects to introduce some new approaches, such as joint development agreements (JDA) where IFC engages with companies directly to develop off-grid energy solutions and partnerships with other development partners to accelerate the development of off-grid energy solutions.

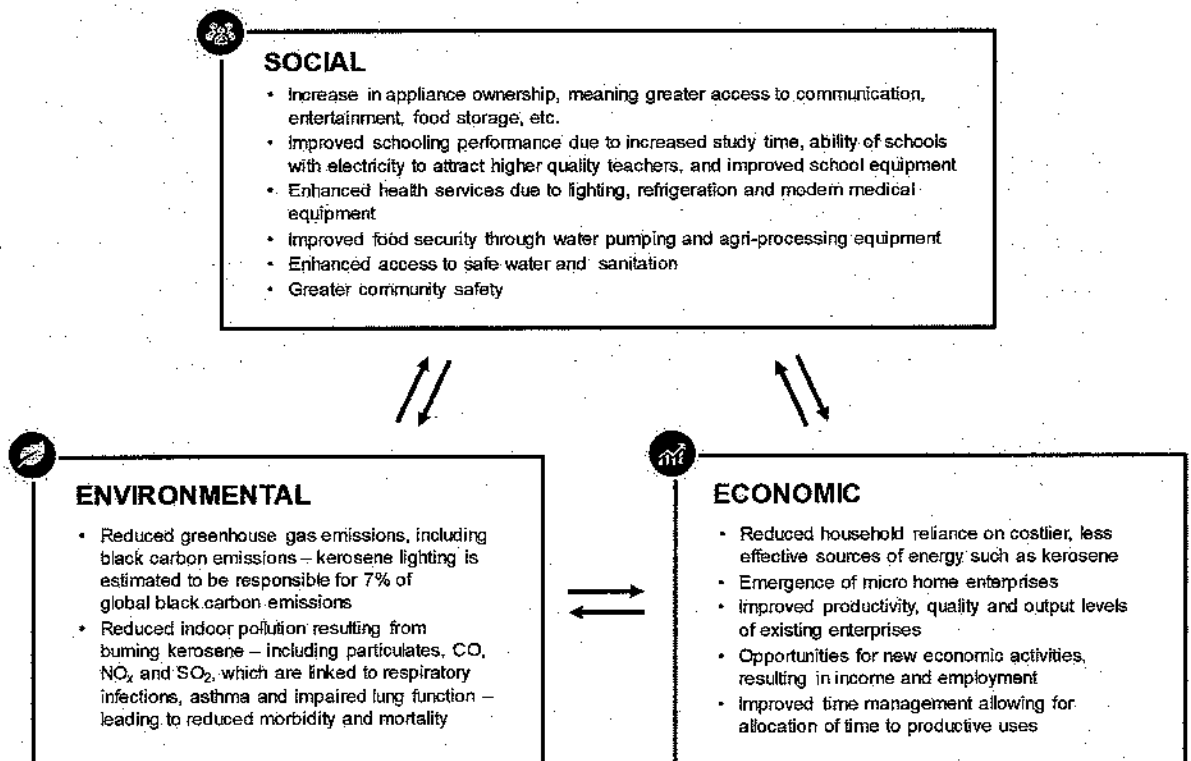
Focus countries

IFC will select several countries to focus on, depending on interest and appetite of both public and private sector players. The Program will initially focus on Zambia, with the intention being to demonstrate the viability of this PPP approach before expanding to other countries. Other countries which may be interested in the Program include Cote D'Ivoire, Malawi and Mozambique, among others. In addition, as MELS is aiming to increase its footprint in the Sahel region, this program will seek to engage in the countries in that subregion, where possible.

Expected results and impact

The program will enable access to modern energy solutions for households, enterprises and public services, resulting in social, economic and environmental benefits, as set out in Figure 2 below. Along with energy access objectives, the program will also contribute to transitioning towards a low-carbon economy and, therefore, to combating climate change.

Figure 2: Potential benefits of off-grid renewable energy access solutions



The program will measure impact against targets using the following key indicators:

- Number of people receiving access to improved electricity services
- Value of financing facilitated
- Renewable energy expected to be produced
- GHG emissions expected to be reduced

A further key benefit of the program will be demonstration of a PPP approach, which can then be replicated both within focus countries and in other countries to achieve delivery of off-grid energy solutions at scale.

Program Budget

Below is a table with the estimated costs across the different program activities.

Program Activities	ALLOCATIONS		
	ORIGINAL	ADDITIONAL	REVISED TOTAL
1. Upstream work	1,800,000	380,000	2,180,000
2. Structuring competitive procurement of PPP	1,550,000		1,550,000
3. Transaction Advisory Support		1,140,000	1,140,000
4. Implementation support	700,000	427,500	1,127,500
5. Program Development & Management	800,000	190,000	990,000
6. Travel	265,446	237,500	502,946
Administration Fee (5%)	269,234	125,000	394,234
Total	\$ 5,384,680	\$ 2,500,000	\$ 7,884,680

TF071518

ANNEX C
dated March 26, 2019

TO THE ADMINISTRATION AGREEMENT
dated July 20, 2010

BETWEEN

THE GOVERNMENT OF ITALY AS REPRESENTED BY
THE MINISTER FOR ENVIRONMENT LAND AND SEA

AND

INTERNATIONAL FINANCE CORPORATION

FOR

THE FINANCIAL SUPPORT OF

AN ADVISORY SERVICES RENEWABLE ENERGY MARKET
DEVELOPMENT IN AFRICA

UNDER THE CLEAN ENERGY ACCESS PROGRAM

The majority of countries in Sub-Saharan Africa (SSA) have experienced power shortages over the past few years, resulting in load shedding and frequent interruptions to service. The economic costs of power outages, including the costs of running backup generators and of forgone production, impair these economies by reducing gross domestic product (GDP). It is estimated that infrastructure problems and deficient power generation and transmission infrastructure account for a significant drain on firm productivity - well ahead of those related to red tape, corruption, and other factors.

Chronic power shortages combined with inadequate transmission and distribution networks are the primary causes of low electricity access and consumption. Many countries simply do not have enough electricity to distribute to potential consumers.

Poor electricity supply is generally the result of inadequate investment in new power generation capacity, although, the deteriorating performance of existing power plants may also play a part. The region's high reliance on backup generators is a strong indication of the inadequacy and unreliability of grid-supplied power.

Renewable energy offers a cost-competitive option for many countries in SSA that can also allow for reduced dependence on costly imported fossil fuels, but the public sector alone cannot respond to the overwhelming investment needs in the region to revitalize its energy infrastructure and increase renewable energy penetration. The role of the private sector is critical. However, a number of market barriers prevent private companies from investing in the energy sector and, both local and international financial institutions from delivering proper financing products. These barriers include, but are not limited to, the following:

- *Market entry risks/costs for project developers.* Many countries in the region have only recently signalled interest in private investment in the power sector. There are also country-specific and macroeconomic risks that create obstacles to investment. Bankability issues are paramount and market entry costs may be prohibitively high for developers and investors.
- *Scarce access to project finance instruments.* Local financial institutions (FIs) are not adequately prepared for energy sector initiatives. Due to the lack of capacity and expertise, FIs lack the confidence to shift from traditional corporate finance to project-based instruments. Therefore, available financing is mostly restricted to collateral-based loans to existing clients.
- *Limited local experience with advanced technologies/good practice approach in project development.* Local private investors, publicly-owned utilities, and local developers often lack the state-of-the-art knowledge in project design and development for renewable energy technologies.
- *Technical system level barriers.* Many SSA countries have limited private sector incursion in the energy sector and the power systems were designed, and continue to be operated, by public sector companies, which tend to be very weak and financially insolvent.

With this in mind, IFC intends to develop the market for more reliable power, with a specific focus on renewable energy technologies, in challenging markets.

Program Objectives

The overall purpose of this IFC program is to catalyse investment in clean energy generation, transmission and distribution networks and other related infrastructure, so that the countries in SSA become more productive, competitive, and sustainable. The program aims to deliver IFC

advisory service support to provide added-value to clients and markets, with a specific emphasis on opening up new opportunities for private sector participation in the power sector.

Based on preliminary assessments of countries in SSA, there are sizeable amounts of potential renewable energy that could be harnessed in these markets, though they each have different obstacles, some more prominent than others. Hydro and solar are plentiful in the target countries (and the West Africa region in general) and promise to offer an affordable energy supply.

Components and Activities

The program will consist of two components:

1. *Sector level work*: Market/sector level work to address market barriers and facilitate replication of advanced clean energy solutions across markets. This market/sector level work will include activities that increase awareness, encourage collaboration and cooperation between companies, increase investment opportunities and contribute to the adoption of good practices in project development, advanced renewable energy/efficiency technologies, etc. In addition, this component will also include upstream work with public sector agencies in order to open up the market for private finance such as support for the development of the secondary regulations.
2. *Customized advice to clients*: Advisory to specific firms and government agencies to facilitate investments in clean energy and enhancements in power networks. It is expected that the majority of the work will focus on the following target segments: (i) power sector projects (special focus on hydro and solar); (ii) electricity transmission and distribution (T&D) networks; and (iii) public agencies responsible for public private partnership (PPP) projects.

Focus Countries

Countries will be targeted based on various criteria including renewable energy potential, expected investments, openness for private sector investment, private sector engagement in renewable energy to date, and preference for fragile and conflict affected (FCS) countries where IMELS has bilateral agreements with priority to the Sahel Region.

Expected Impact and Results

The program will measure impact against targets using the following key indicators:

- Number of people receiving access to improved electricity services
- Value of financing facilitated
- Renewable energy expected to be produced
- GHG emissions expected to be reduced

Program Budget

IFC is requesting USD 2.5 million from IMELS to support the implementation of this program. The table below includes the estimated costs across the different program activities.

Program Activities	USD
Sector level work	1,520,000
Customized advice to clients	522,500
Program Development & Management	190,000
Travel	142,500
Administration Fee 5%	125,000
Total	2,500,000

Budget allocations were estimated based on the recognized need to open up these markets for private investment, thus requiring additional support at the sector/market level