

BOARD APPROVAL
Lapse-of-time Procedure

20 July 2018

FOR INFORMATION

MEMORANDUM

TO : THE BOARDS OF DIRECTORS

FROM : Vincent O. NMEHIELLE
Secretary General

SUBJECT : ZAMBIA : RENEWABLE ENERGY FINANCING FRAMEWORK –
TECHNICAL ASSISTANCE*

SEFA GRANT OF USD 1,500,000

The Technical Assistance of the above mentioned project, and the relevant **Draft Resolution** were submitted for your **consideration on a Lapse-of-time basis**, on 12 July 2018.

Since **no objection** was recorded by **5.00 pm on 20 July 2018**, the said Request is considered **approved** and the Resolution **adopted**.

Attch.

C.c. : The President

***Questions on this document should be referred to:**

| | | | |
|------------------|------------------------------|--------|----------------|
| Mr. O. NAKOULIMA | Director | PERN | Extension 4035 |
| Mr. G. PENN | Ag. General Counsel | PGCL | Extension 3220 |
| Mr. E. NEGASH | Division Manager | PERN.1 | Extension 3931 |
| Mr. S. AMADOU | Division Manager | PCGL.2 | Extension 3333 |
| Mr. A. KAREMBU | Principal Investment Officer | PERN.1 | Extension 1961 |
| Mr. N. OH | Task Manager | PERN.2 | Extension 4332 |



GROUPE DE LA BANQUE AFRICAINE DE DÉVELOPPEMENT
AFRICAN DEVELOPMENT BANK GROUP

SUSTAINABLE ENERGY FUND FOR AFRICA

SEFA Grant Request (SGR) – Enabling Environment Grant

Zambia Renewable Energy Financing Framework

July 2018

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| Abstract – Zambia Renewable Energy Financing Framework | | | |
|--|--|--------------------|--|
| Task Manager: | Namho OH/ Chérif SEYE | Grant Beneficiary: | Government of the Republic of Zambia (GRZ), NAPSA and ZANACO |
| Division: | PERN.1/SEFA | Grant Amount: | USD 1.515 million |
| Project Summary | | | |
| Project Description: | <p>The power sector in Zambia is dominated by the intensive use of hydropower, representing nearly 90% of the 2,827 MW installed generation capacity and a low electrification rate standing at 28%. As a result of this overreliance on hydropower, the country has been experiencing critical electricity supply deficit from recent droughts. Consequently, the Government of the Republic of Zambia (GRZ) has been importing emergency power and is now actively seeking to improve conditions for private investment for power projects. The Bank is structuring a programmatic proposal “The Zambia Renewable Energy Financing Framework”, co-financed by the Green Climate Fund (GCF), to support the GRZ in its efforts to catalyze private investment for small-scale renewable energy (RE) projects – and thereby accelerate the achievement of its electricity generation targets and the diversification of its energy mix. This will essentially reduce the country’s reliance on the energy imports, which has been an added fiscal pressure at the time of power crisis.</p> <p>The AfDB-GCF framework includes a technical assistance (TA) component of up to USD 4 million with the objective 1) to assist the public sector institutions (such as the Ministry of Energy and Water Development and Rural Electrification Authority) to create enabling environment for private investments in the mini-grid and off-grid sector; and 2) to build the capacity of selected local financial institutions (FIs) and the Zambian financial industry on RE and infrastructure financing (RE project screening, due diligence, and monitoring). GCF is providing a USD 2.5 million grant to cover part of this TA (mainly the component 1 for public sector). SEFA support is requested to target component 2, in a view to incentivizing and supporting local the financial institutions who intend to deploy investment in RE projects while they lack expertise and experience.</p> | | |
| SEFA Alignment and Role: | <p>This intervention is consistent with SEFA’s mandate to unlock small and medium size private RE investments. SEFA grant is geared to support the local financial institutions build their RE capacity, identify and prepare RE projects to be investment-ready, specifically to implement the following four activities for FIs and the whole finance industry: (i) Deals origination support to selected FIs, (ii) Project appraisal and coaching of local staff for selected FIs, (iii) Development of procedures, guidelines and manuals related to the RE business, and (iv)) Credit policy and risk management support. The purpose of this TA is to crowd-in and sustain participation from interested and credible commercial banks as well as the national pension fund managed by the National Pension Scheme Authority (NAPSA) of Zambia by supporting their first investments in renewable energy and building their capacity for longer term involvement in climate financing. Supports to individual FIs will be delivered through a team of experts to be embedded within the institutions over 18 months. NAPSA and a number of commercial banks (such as ZANACO, Development Bank of Zambia and Indo-Zambia Bank) have expressed interests to partner with AfDB on this project.</p> | | |
| Cost Structure: | <p>The total cost for the technical assistance is estimated at USD 4 million, of which SEFA is requested to provide a grant of up to USD 1.515 million geared towards the local financial sector while GCF would cover the remaining USD 2.5 million to the benefit of the public sector mainly. SEFA grant will cover 1.5 years of RE and project-finance advisory for 3 FIs as well as awareness raising and skilling and capacity building for the whole financial sector.</p> | | |
| Recipient | <p>The grant recipients will be GRZ, NAPSA and ZANACO through the Ministry of Finance.</p> | | |
| Bank’s Role: | <p>The Bank is already a key actor in Zambia’s energy sector, currently financing a cost-of-service study prior to a support package aiming to restructure ZESCO for reaching financial sustainability. The Bank is also positioned to play the Mandated Lead Arranger role for the financing of the GETFiT program, whose Round 1 will select 5-6 small-scale solar PV projects. SEFA’s support (TA) will complement Bank’s effort in the country and will specifically support the GRZ’s ambition to promote private sector participation and mobilize private RE investment.</p> | | |
| Implementation Arrangements: | <p>The master implementation entity will be the GCF National Designated Authority (NDA) at the Ministry of National Development Planning, who will supervise and coordinate all activities in relation of the programme. The NDA will then delegate implementation of some SEFA-related sub-components to NAPSA, ZANACO and other selected beneficiaries who will contract the requisite expertise in the form of individual/firm services.</p> | | |
| Strategic Alignment: | <p>The program is fully aligned with the GRZ priorities to address the current power deficit and to diversify the country’s energy mix so as to reduce the hydro-dependency. Additionally the project directly supports increasing Zambia’s rural access which is 4% currently compared to 61% for urban access. At the Bank level, the CSP (2017-2021) has a strong focus on private sector development given its importance for creating jobs; which the program will support. The Strategy’s overall objectives are to make growth more inclusive while building a robust and sustainable (greener) basis for long term growth. The Strategy is designed to assist the GRZ sustain economic growth while diversifying the economy and strengthening country competitiveness. The project also aligns with the Bank’s Ten Year Strategy and High-5s (Light up and Power Africa, Industrialize Africa, and Improve the quality of life for the African people), by delivering “green” infrastructure and catalyzing private sector participation.</p> | | |
| Development Outcomes: | <p>AfDB’s intervention is expected to mobilize several partners to align and converge towards delivering maximum impact while shaping a better environment for sustainable future business. The program will build national capacity for originating, financing, and possibly constructing, operating and maintaining RE plants for a total capacity of 200 MW, creating the ecosystem and value chain to replicate RE projects with strong local and private participation. It will further showcase small/medium-scale RE IPPs as a practical solution to the current power deficit and as a potentially larger contributor for the future. SEFA’s intervention is meant to leverage USD 30 million of local investment that can be scaled up in the subsequent rounds of the renewable energy feed-in-tariff (REFiT) and mini-/off-grid project financing, building on improved understanding and risk perception in the RE sector. This model could be replicated in other geographies with similar partners.</p> | | |

Application Summary

Processing Stage

Post-TC Revision

Date

6/23/2018

Bank Team Lead

Namho OH

SEFA Team Support

Chérif SEYE

Project Sector/Technology

Renewable Energy Sector

Project Country/Region

Zambia

Implementing Agency

GCF NDA, Ministry of National
Development Planning

Partner Donors

Green Climate Fund

Project Description

Technical Assistance (TA) grant of up to USD 4 million, from the Green Climate Fund (USD 2.5million) and SEFA (USD 1.5million), will be provided 1) to assist the public sector institutions (such as the Ministry of Energy and Rural Electrification Authority) to create enabling environment for private investments in the mini-grid and off-grid sector; and 2) to build the capacity of selected local commercial banks, NAPSA, and the Zambian financial industry for its enhanced understanding on renewable energy (RE) and infrastructure financing, renewable energy project screening, due diligence, and monitoring. **SEFA Technical Assistance grant will only be invested in TA component 2.**

Project Components

1. Component 1: Technical Assistance to the public sector for accelerating rural electrification through private-led mini-grid and off-grid
2. Component 2: Capacity building among local commercial banks and financial sector to enhance RE and project financing capabilities

Key Performance Indicators

[Outcome-level]

1. Number of RE IPP, off- or mini-grid projects financed by local FIs

[Output-level]

2. Number of financial institutions supported and their institutional capacity built
3. Number of people in the Zambian financial sector trained

Summary Financing Plan (USD million)

| # | Component | SEFA funding | GCF funding | Total |
|---|---|-----------------|----------------|--------------|
| | | | | |
| 1 | Technical Assistance to the public sector for accelerating rural electrification through private-led mini-grid and off-grid | 0 | 2.3 | 2.3 |
| 2 | Capacity building among local commercial banks and financial sector to enhance RE and project financing capabilities | 1.5 | 0.2 | 1.7 |
| 3 | Audit | 0.015 | 0 | 0.015 |
| | TOTAL | 1.515 | 2.5 | 4.015 |

Abbreviations

| | |
|--------|--|
| AfDB | African Development Bank |
| CEC | Copperbelt Energy Corporation |
| CSP | Country Strategic Paper |
| ERB | Energy Regulatory Board |
| FI | Financial Institution |
| GCF | Green Climate Fund |
| GETFiT | Global Energy Transfer Feed-in-Tariff |
| GRZ | Government of the Republic of Zambia |
| ICS | Individual Consultant Selection |
| IPP | Independent Power Producer |
| ITPC | Itezhi-Tezhi Power Company |
| LCS | Least Cost Selection |
| LHPC | Lunsemfwa Hydropower Company |
| MW | Megawatts |
| NAPSA | National Pension Scheme Authority of Zambia |
| NDC | Nationally Determined Contributions |
| PERN | Renewable Energy and Energy Efficiency Department (AfDB) |
| PEVP | Power Energy Climate and Green Growth Complex (AfDB) |
| PPA | Power Purchase Agreement |
| PV | Photovoltaic |
| QCBS | Quality and Cost Based Selection |
| REFiT | Renewable Energy Feed-in-Tariff |
| RE | Renewable Energy |
| SEFA | Sustainable Energy for Africa |
| SRFP | Standard Request for Proposals |
| TA | Technical Assistance |
| ZESCO | Zambia Electricity Supply Corporation Limited |

1. Introduction

a) Country Context

1.1 Country and economy: Zambia has a population of 16.5 million and a GDP per capita standing at USD 1,178 (in 2016, current US dollar). Zambia's economy has been growing on average by 7.3% annually between 2000 and 2017 (real per capita growth is 4.2%)¹, and as a result the country has been upgraded to a Lower Middle Income Country status in 2011 (World Bank classification). In recent years, however, the public debt level has risen as borrowings for filling fiscal gaps and financing public infrastructure investments have increased. The country's financial distress has been deepened by several additional factors: steep commodity price drop (Zambia is Africa's second-biggest copper producer); rising cost of the Eurobond finance, from 5% in 2012 to over 9% in 2015; and sharp depreciation of the Zambian currency (Kwacha) in 2015 increasing the level of external debt services in kwacha terms to an estimated 17% of domestic revenues in 2016. The country is now rated BB by the Standards and Poors, who however recently revised Zambia's economic outlook from negative to "positive with a stable outlook" (August 2017). Access to finance therefore remains limited and costly overall. The GRZ is in talks with the International Monetary Fund (IMF) to access a three-year credit facility for up to \$1.3 billion to help strengthen the foreign reserves.

Despite its elevated status as a Lower Middle Income Country, Zambia is still constrained on the economic and social front (ranked 139th in the Human Development Index)². As described above, Zambia is facing an economic challenge with substantial public debt (60% of the GDP) and budget deficit (6.5% of the GDP, of which subsidies – primarily energy – contribute to 1.3%)³. This is closely intertwined with the problems of the energy sector: a recent power crisis caused huge payment burden from electricity imports, worsening the deteriorated financial position of the state-owned utility (ZESCO). As the country's economy continues to grow and the living standard rises, increasing demand for electricity will add more pressure to the utility to expand the power supply base. When the country struggles with low electrification and low renewable energy (RE) penetration, further complicated by financial and macroeconomic instability, measures in terms of investment and policy support are imperative in order to address the systematic weakness and unlock the potential of private-led sustainable energy generation. Eventually this will be critical to guide the country's development toward a low-carbon path rather than business-as-usual.

b) Sector Context

1.2 Energy sector: Energy generation in Zambia relies almost entirely on hydro power (nearly 90% of the total installed generation capacity). Facing serious electricity supply deficit from recent droughts, the Government of the Republic of Zambia (GRZ) now actively seeks to diversify its energy mix and to improve conditions for private investment into power projects. This framework proposal will support the GRZ in its efforts to catalyze private investment in the renewable energy sector, and thereby accelerate the achievement of its electricity generation targets and the diversification of its energy mix. This will essentially reduce the country's reliance on the energy imports which has been an added fiscal pressure at the time of power crisis.

1.3 Zambia has an electrification rate of approximately 27.2% (World Bank 2016), which is well below the average level of the Southern African region. Access to electricity in urban areas are below 50% and rural electrification rate stands below 5%. Due to recent droughts and overdraw of water from the Kariba Dam, Zambia has faced serious power shortages since 2015 and ended up importing 3,640 GWh of emergency energy from the region in 2016.

¹ World Bank Data.

² UNDP, Human Development Report, 2016.

³ IMF Country Report No.17/328, Zambia, 2017.

In 2016, the national installed capacity in Zambia amounted to 2,827 MW, of which 78.6% belong to the state-owned electricity company ZESCO (2,221 MW). The remaining share of 21.4% of IPPs (606 MW) comprises a mine-mouth coal fired power plant by Maamba (with a 20-year PPA), an HFO plant by Ndola Energy, two hydropower plants operated by LHPC, a hydropower plant operated by ITPC (jointly owned by ZESCO and TATA), and the CEC who is an independent generation company that transmits and distributes electricity to mines throughout Zambia. Non-hydro renewable energy IPPs amount to only 176 MW (6.22% of total installed capacity).

The major electricity consumer is the mining sector who is taking 54.5% of the electricity, followed by the domestic sector (31.2%), finance and properties (4.6%), manufacturing (4.3%), agriculture (2.1%) and others. In 2016, total energy consumption amounted to 10,857.5 GWh which equals to 547 kWh per capita. This is a reduction by 5.2 % from 11,449.9 GWh in 2015, which is mainly caused by the slowdown in mining activity and outages for non-mining customers. Different scenarios estimate that the energy demand in 2020 will increase by between 16,584 and 17,257 GWh.

c) Legal and Institutional Context

1.3 Institutional context: The Ministry of Energy and Water Development is responsible for the overall energy policy and strategy related issues. Under its supervision, the Energy Regulation Board (ERB) has the mandate to determine the electricity tariffs for customers, following the Electricity Act, Cap 433 and the Energy Regulation Act, Cap 436 1995 of the Laws of Zambia. The ERB takes into account the consumption volume, regularity of demand, the time when electricity is required, the production cost, and other circumstances approved to determine the tariffs. The Zambian electricity system is dominated by ZESCO, a vertically integrated government-owned electricity utility, while Independent Power Producers (IPPs) such as Copperbelt Energy Corporation (CEC), Lunsemfwa Hydropower Company (LHPC), Itezhi-Tezhi Power Company (ITPC), and Maamba Colliery play a smaller role. Another important player is the Rural Electrification Authority (REA), mandated with the implementation of the rural electrification programs and management of the rural electrification fund. Currently Zambia's electricity sector is marked by supply deficit, payment burden from electricity imports and non-cost reflective tariffs, which has collectively resulted in the financial instability of the utility (ZESCO). The GRZ is preparing for a sector reform program with the Bank's support to improve overall efficiency and financial health of the utility.

1.4 Policy direction and regulatory context: The GRZ is committed to increase renewable alternative sources of energy as formulated in the Zambia Vision 2030 that has entered into force in 2006. The GRZ's climate policy priorities, as described in the Nationally Determined Contributions (NDC) to the COP21 Paris agreement on Climate Change, indicate the scale-up of renewable energy as a key contributor to the conditional target of reducing emission by 47% against 2010 as the base year. It also contributes to realize the National Energy Policy and the Seventh National Development Plan by supporting the development of low carbon and climate resilient pathway. The GRZ has recently approved the REFiT strategy which provides a regulatory framework for small- and medium-size RE projects. In order to support the implementation of the REFiT strategy, the Global Energy Transfer Feed-in-Tariff (GETFiT) program has been designed with the objective of deploying a total 200MW of small- to medium-scale renewable energy generation capacity.

d) Project Description and Rationale

1.5 Project Description: This enabling environment grant is part of the AfDB-GCF Renewable Energy Financing Framework for Zambia, a financing package arranged to finance private sector renewable energy projects and to assist capacity building of relevant institutions for renewable energy investment. The proposed AfDB-GCF financing envelope aims to provide USD 100 million of debt financing to selected small-scale (1-20MW each) REFiT projects, primarily targeting the first round 100 MW solar PV and including a limited number of small-hydro projects from the subsequent tenders (up to 20% of the

framework financing). The scheme is expected to crowd-in co-financing participation from interested and credible commercial banks.

As part of the framework, technical assistance (TA) grant of up to USD 4 million, from the Green Climate Fund (GCF) and the SEFA, will be provided 1) to assist the public sector institutions (such as the Ministry of Energy and Rural Electrification Authority) to create enabling environment for private investments in the mini-grid and off-grid sector; and 2) to build the capacity of selected local commercial banks, National Pension Scheme Authority of Zambia (NAPSA), and the Zambian financial industry for its enhanced understanding on renewable energy and infrastructure financing, renewable energy project screening, due diligence, and monitoring. It is envisaged that local participation can be scaled up in the subsequent rounds of the REFiT and mini-/off-grid project financing, building on improved understanding and risk perception in the renewable energy sector.

1.6 Challenges

1.6.1 *Weak enabling environment for private investments in the mini-grid and off-grid sector:* Due to limited public financing capacity for the grid expansion or the creation of independent grids, and various economic and regulatory challenges faced by private investors for developing or implementing mini-grid and off-grid projects, the rural electrification rate in Zambia remains approximately 4%. With a population density close to 22 people per km², rural electrification in Zambia is an enormous challenge. While the addition of several new small IPPs to the national grid will be instrumental for alleviating the country's energy deficit, extending rural grid access is often economically untenable. Similar to other countries in the region, it is likely that many rural areas will remain without access to the national grid for decades; and indeed, considerable numbers of rural households may not ever receive a grid connection.

1.6.2 *Lack of capacity of local financial institutions:* Zambia's history of renewable energy IPP projects is limited and transactions have been dominated by DFI financing, and as a result only few local financial institutions have experimented project finance in the RE sector. There is a clear barrier for commercial financial institutions to participate to renewable energy projects in Zambia. This probably derives from a lack of appetite, limited experience with investing in similar types of infrastructure projects, and inappropriate funding – high cost and short tenor (only 5-7 years maximum) of capital which makes them unattractive to project sponsors. This is a significant challenge in crowding-in local private capital to RE projects financing, including off-grid and mini-grid projects. Since Zambian FIs lack understanding in the renewable energy sector or project financing, and hence not able to lend money with attractive terms (tenor and pricing), TA coupled to bespoke financial mechanisms are needed to cross the chasm.

1.7 Lessons Learnt: The design of the TA draws lessons from previous enabling environment supports provided from the SEFA for the regulatory and ecosystem development for upscaling mini-grid and off-grid. Mainly on the design of the TA which is tied to a wider program with financing available for project investment thus providing enough incentive for partners to succeed the TA; but also on the selection of the partner institutions and the structuring of the implementation arrangements – i.e. procurement, financial management and supervision.

1.8 Development Impacts: The overall impact of the TA will reach across both public and private energy sector. The TA facility in the public sector (the first component) will enable Rural Electrification Authority (REA) to make important improvements towards a strengthened enabling environment for private off-grid and mini-grid actors in Zambia. Greater availability of market information provided by REA, such as the proposed GIS data and energy demand data, will reduce the amount of early stage equity that developers will need to secure and spend on pre-feasibility work, stimulating both developer and investor interest in the sector. The availability of high-quality data sets would enable developers to fine tune business planning to market conditions, while offering credibility to the key assumptions underpinning operational expansion plans and revenue projections.

The second component of the TA will also support private sector by supporting selection of local financial institutions (FIs) (commercial banks and institutional investors – pension fund) in Zambia to build the requisite team, expertise and process that are needed to originate, appraise, finance and supervise RE projects; and building the overall capacity of the Zambian financial industry for its enhanced understanding on RE and infrastructure financing. An embedded team of highly experienced international advisors will be recruited to constitute the sustainable energy financing team by being a nucleus around which the investment team will be formed. These coaches will ensure that local staffs recruited in the team gain the necessary skills and experience through training and participation to business operations in the first 18 months. At the end of the support, the strong capacity that will have been built within the local FIs to support their RE deal origination, due diligence, and project monitoring will serve to sustain the sector development in the long run.

e) Justification for SEFA Intervention

1.9 Linkage to SEFA Objective: The project fits SEFA’s objective of providing TA for conducting project development activities for RE and Energy Efficiency (EE) projects. The proposed enabling environment grant aligns with SEFA’s mandate to unlock private investments in renewable energy.

The SEFA grant will enhance the capacity of local commercial banks and financial sector for RE and project financing by strengthening the participating bank’s RE projects credit assessment, monitoring and portfolio systems and by increasing the transparency, speed and volume of RE IPP transactions. This corresponds to the Component 2 under the overall AfDB-GCF TA facility.

1.10 SE4All Objectives: The project is aligned with the objectives of the SE4All as it contributes to increasing access to modern energy services , improve energy efficiency and share of renewable energy in the global energy mix.

1.11 Strategic Alignment: The project is fully aligned with the GRZ priorities to address the current power deficit and to diversify the country’s energy mix so as to reduce the hydro-dependency. At the Bank level, the CSP (2017-2021) has a strong focus on private sector development given its importance for creating jobs; which the program will support. The Strategy’s overall objectives are to make growth more inclusive while building a robust and sustainable (greener) basis for long term growth. The Strategy is designed to assist the GRZ sustain economic growth while diversifying the economy and strengthening country competitiveness. The project also aligns with the Bank’s Ten Year Strategy and High-5s (Light up and Power Africa, Industrialize Africa, and Improve the quality of life for the African people), by delivering “green” infrastructure and catalyzing private sector participation.

2. SEFA Enabling Environment Grant

a) Objective

2.1 Overall Objective: The purpose of this TA is to enable the crowding-in and sustained participation from interested and credible commercial banks as well as the national pension fund managed by the National Pension Scheme Authority (NAPSA) of Zambia by supporting their first investments in renewable energy and building their capacity for longer term involvement in climate financing.

2.2 This intervention is consistent with SEFA’s mandate to unlock small and medium size private investments in clean energy. SEFA grant is geared to support the local commercial banks to build their RE capacity, identify and prepare RE projects to be investment-ready.

2.3 The Green Climate Fund (GCF) grant will completely invest in the “TA Component 1” which is assisting public sector to support creating enabling environment for private investments in the mini-grid

and off-grid sector. On the other hand, SEFA TA grant will invest in part of the “TA Component 2” to support private sector players (i.e. local financial institutions and NAPSA – the national pension fund of Zambia) to enhance their capacity in RE projects origination, due diligence and monitoring.

b) Project Executing Agency

2.4 Following the overall implementation arrangement of the AfDB-GCF “Zambia Renewable Energy Financing Framework”, the SEFA grant will be implemented by the GCF National Designated Authority (NDA) at the Ministry of National Development Planning who will supervise and coordinate all activities. The NDA will then delegate implementation of some self-related sub-components to beneficiaries FIs.

2.5 From a series of market sounding activities at the project’s preparatory stage, NAPSA and ZANACO have demonstrated their commitment for RE project financing and expressed strong interest to participate to the TA activities. Development Bank of Zambia, Indo-Zambia Bank, Stanbic and Standard Chartered have been consulted. Selected beneficiaries will respectively procure and contract the requisite expertise in the form of individual/firm services.

2.6 For ZANACO, the concept of this TA has been presented internally and the discussion is ongoing to carve out the specifics of the program implementation and to prepare associated internal documentations. NAPSA also expressed a strong interest in this TA since NAPSA targets to kick-start investment in the renewable energy sector in line with its revised investment strategy that promotes financing of the country’s key infrastructure projects. In order to do so, NAPSA’s investment team has been recommended to strengthen their internal capacity to understand and appraise energy infrastructure projects, including knowledge building to understand various renewable energy technologies.

c) Grant Components/Activities, Outputs and Deliverables

2.7 In order to enhancing local financial institutions’ RE and project financing capabilities, the activities will build the capacity of selected local commercial banks, institutional investors, and the Zambian financial industry for its enhanced understanding on renewable energy and infrastructure financing, renewable energy project screening, due diligence, and monitoring. Participation of local investors to RE projects have been hindered by their limited capacity, little experience in the sector, and high risk perception. It is envisaged that local participation can be scaled up in the subsequent rounds of the GETFIT program as well as in other public RE tendering processes (including mini- and off-grid projects), building on the improved understanding and risk perception in the RE sector.

2.8 In addition to embedding specialists within FIs, training workshops will be held for the Zambian financial community regarding RE deals origination support and credit policy and risk management support. RE deals origination support workshop contents will cover: understanding renewable energy sector and technology, sharing know-how for infrastructure financing, and understanding the roles of financial institutions and potential approaches of financial supports to RE projects. The credit policy and risk management workshop contents will cover topics such as: the main risk in RE project finance, learning from other types of projects, risk management strategy, and tools and methodologies for the credit risk assessment and financial analysis. Some workshops will be held several times, over three years, to allow for different staff within the same organizations to participate, thus enlarging the knowledgeable population. Table 4 (Procurement items) and Annex 4 (Detailed TA budget) provide further details.

2.9 The outputs and activities under the SEFA TA grant are highlighted in Table 1 below.

Table 1: Outputs and Activities

| Outputs | Activities | Budget Account Description |
|--|--|--|
| All tools and processes in place strengthening the participating bank's RE projects credit assessment, monitoring and portfolio systems, and increasing the transparency, speed and volume of RE project transactions. | Deals origination support to selected FIs | International consultant |
| | Project appraisal and coaching of local staff for selected FIs, and training to the whole financial sector in Zambia | International consultant |
| | Development of procedures, guidelines and manual related to the sustainable energy business | International consultant and trainings |
| | Credit policy and risk management support (for individual institutions and sector-wide) | International consultant |

d) Budget/Cost Structure

2.10 The total cost of the TA is USD 1.726 million and will be disbursed within 3 years. Below Table 2 provides details of the cost structure. SEFA is expected to cover USD 1.5 million while the GCF will bridge the gap.

Table 2: Cost structure (Component 2 total, co-financed by SEFA and GCF)

| Activities | Year 1 (USD) | Year 2 (USD) | Year 3 (USD) | Total (USD) |
|--|------------------|----------------|----------------|------------------|
| Deals origination support to selected FIs | 308,000 | 198,000 | 88,000 | 594,000 |
| Project appraisal & coaching of local staff for selected FIs, and training to the whole financial sector in Zambia | 220,000 | 110,000 | 0 | 330,000 |
| Development of procedures, guidelines and manual related to the sustainable energy business | 151,800 | 0 | 0 | 151,800 |
| Credit policy & risk management support (individual institutions and sector-wide) | 330,000 | 220,000 | 100,000 | 650,000 |
| Total | 1,009,800 | 528,000 | 188,000 | 1,725,800 |

e) **Implementation Schedule**

2.11 Implementation Timeline

Table 3: Summary Phase 1 Implementation Schedule

| SEFA TA Activities | | 2018 | | 2019 | | | | 2020 | |
|--|--|------|----|------|----|----|----|------|----|
| | | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 |
| Enhancing local financial institutions' RE and project financing capabilities (<i>training on the indicated items</i>) | Deal origination | | | | | | | | |
| | Project appraisal | | | | | | | | |
| | Processing of funding request | | | | | | | | |
| | Guidelines, manual of procedures | | | | | | | | |
| | Credit policy & risk management | | | | | | | | |
| | Product & marketing alignment | | | | | | | | |
| | Environment and Social Impact Assessment | | | | | | | | |

f) **Procurement Modalities**

2.12 Summary of the Procurement Arrangements for the activities under the Grant

The procurement arrangements for the various contracts to be financed by the grant and procured using the Bank's procurement rules and procedures, are summarized in Table 4 below. Large-value contracts, each group of similar transactions/contracts, the different procurement regimes, estimated costs, oversight requirements, and the timeframe as agreed between the grant beneficiary and the Bank, are documented in the Procurement Plan.

Specialists that will be embedded in each beneficiary FI will be individual consultants contracted by the institutions themselves; whereas all the sector training activities will be grouped into one contract to be delivered by a firm contracted by the GCF NDA office at the Ministry of National Development Planning of Zambia.

Table 4: Procurement items for activities financed under SEFA Grant

| | Category of Expenditure | Method | Amount (USD) |
|----------|---|-------------|------------------|
| 1 | Consulting Services | | |
| 1.1 | RE Transaction Expert for NAPSA | ICS | 315,000 |
| 1.2 | RE Transaction Expert for ZANACO | ICS | 315,000 |
| 1.3 | RE Investment Advisor(s) for developing investment/credit policy, risk management, ESIA, procedures, guidelines and manuals, for NAPSA | ICS or QCBS | 276,000 |
| 1.3 | RE Investment Advisor(s) for developing investment/credit policy, risk management, ESIA, procedures, guidelines and manuals, for ZANACO | ICS or QCBS | GCF |
| 2 | Trainings, Workshops and Technical Support | | |
| 2.1 | RE technologies : overview for investors/financiers (2x) | QCBS | 40,000 |
| 2.2 | Insights for sorting out the good from the weak projects (4x) | | 80,000 |
| 2.3 | Sourcing of RE projects : market and industry trends (4x) | | 80,000 |
| 2.4 | Financial modeling and economic & financial analysis (4x) | | 80,000 |
| 2.5 | Risk analysis and mitigation (4x) | | 80,000 |
| 2.6 | Overview of the Environment and socioeconomic aspects of RE projects | | 40,000 |
| 2.7 | Overview of Legal aspects of RE projects in the context of the country | | 60,000 |
| 2.8 | RE Legal & Technical support for transactions | | 134,000 |
| 3 | Audit | LCS | 15,000 |
| | TOTAL | | 1,515,000 |

2.13 General Procurement Notices (GPNs), as approved by the Bank, will be issued for publication in UNDB online and in the Bank's Internet Website, upon approval of the Financing Proposal.

2.14 Procurement review. The following documents are subject to review and approval by the Bank before promulgation: (i) General Procurement Notices (GPNs); (ii) Requests for Expressions of Interest (REOI); (iii) Requests for Proposals (RFPs); (iv) Technical Evaluation Reports; (v) Combined evaluation Report and minutes of contract negotiations including Draft initialled contracts.

2.15 Procurement Plan:

The Bank shall review the procurement arrangements proposed by the grant recipients in the Procurement Plan during Negotiations for its conformity with the Grant Agreement and its Rules. The Procurement Plan shall cover an initial period of at least 12 months. The grant recipient shall update the Procurement Plan on an annual

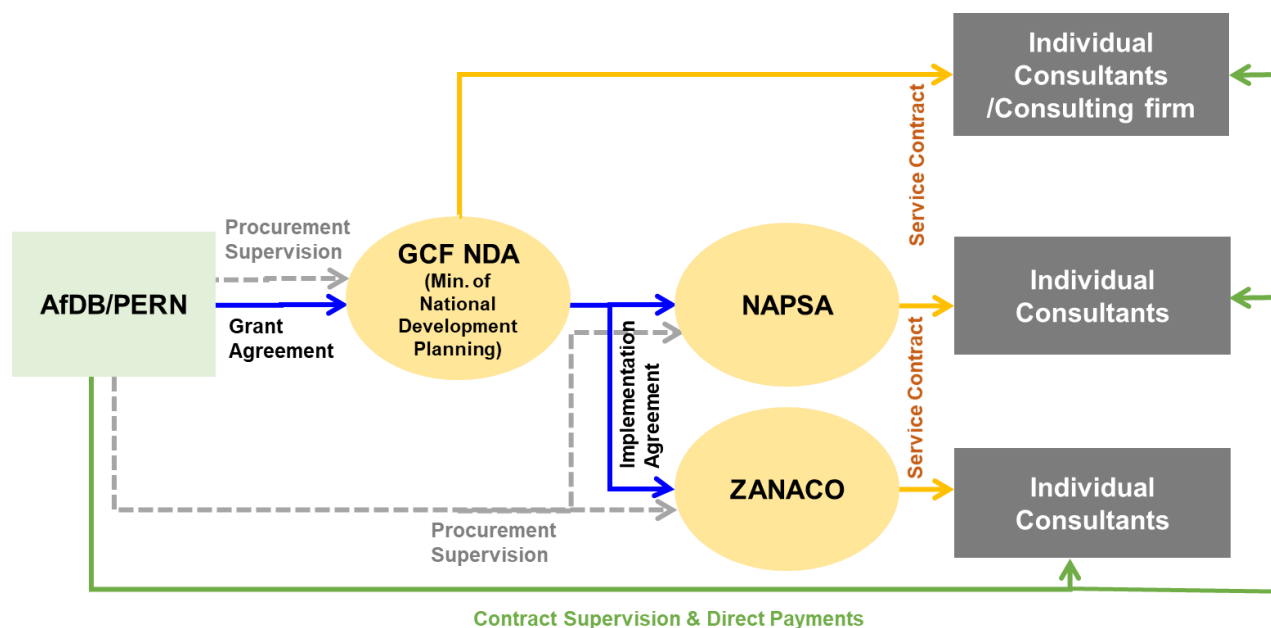
basis or as needed always covering the next 12 months period of project implementation. Any revisions proposed to the Procurement Plan shall be furnished to the Bank for its prior approval.

2.16 Executing Agency: The GCF NDA office at the Ministry of National Development Planning will play the role of overall coordination and execution. It is the responsibility of the beneficiary FIs to procure necessary services. The selection and engagement of consultants and the procurement of services shall be carried out in accordance with the Bank’s applicable policies, rules and procedures. The contracts will be signed between the beneficiaries and the services providers whereas the fund will be released from the Bank upon each payment request. Acquisition of Individual Consultants and Consulting Firms shall be done using Individual Consultant Selection (ICS) and Quality and Cost Based Selection (QCBS) methods respectively, utilizing the Bank Standard Request for Proposals (SRFP).

g) Disbursement Modalities

2.17 Disbursements from SEFA will follow the rules and procedures of the Bank as laid out in the Bank’s disbursement handbook. SEFA financed activities will primarily employ **Direct Payment method**. While TA grantees will procure and contract consultants and service providers, the Bank will hold and manage the grant resources and make a direct payment to consultants/service providers.

Figure 1. Overall implementation arrangement



3. Conclusions and Recommendations

3.1 The AfDB-GCF TA grant under the “Zambia Renewable Energy Financing Framework” is structured in two components, aiming to support the public sector and local financial institutions capacity building to catalyze private capital investment into Zambia’s RE sector.

TA Component 1 is to assist Government of the Republic of Zambia (Ministry of Energy, Rural Electrification Authority, etc.) to create capacity building enabling environment for private investments in the mini/off-grid sector. By the grant, Zambia public sectors will invest in each step which are “Policy and

Regulatory Framework”, “Planning of RE-based Rural Electrification”, “Site identification and Feasibility Studies” and “Financing of Mini-/Off-grid projects”. By investing in each step, it will assist pilot projects to move on to next step: scaling them up in an enabling environment with clearly defined regulations, resource studies and a supportive domestic financial system. TA Component 2, on the other hand, will assist local commercial banks, and pension fund to enhance their capacity in sector of financing RE projects.

The TA facility will enable public sector in Zambia to make important improvement toward a strengthened enabling environment for private RE IPPs and off-grid and mini-grid actors in Zambia and the selected local financial institutions in Zambia to increase the flow of commercial capital financing toward the RE market, and assist building their origination and due diligence capacities.

Through the envisaged demonstration effect and performance track-record, the sector would be able to gradually rely on local financial institutions to play a major role in the energy sector transformation. The proposed participation by NAPSA to the RE financing is groundbreaking, not only in the Sub-Saharan African context but across the global RE sector, setting the bar for the future replications. SEFA TA grant will be only invested in TA Component 2, to strengthening tools and processes of the participating bank’s RE projects credit assessment, monitoring and portfolio systems, and increasing the transparency, speed and volume of RE project transaction.

3.2 SEFA recommends that the Technical Committee clear this Enabling Environment Grant Proposal for an amount up to USD 1,515,000 for onward transmission to the Board of Directors, to which the final approval has been delegated, through the Vice-President of the Power, Energy, Climate Change & Green Growth Complex (PEVP) and the SEFA Oversight Committee.

Annexes

Annex 1: Logical Framework for the SEFA Grant⁴

| Expected Result | Indicator | Means of Verification (MoV) | Baseline | Target | | Assumptions |
|---|--|--------------------------------|--|--|--|---|
| | | | | Mid-term (if applicable) | Final | |
| Project/programme Outcomes | Outcomes that contribute to Program-level impacts | | | | | |
| Strengthened institutional and regulatory systems for private-led local RE financing in Zambia | Number of RE IPP, off- or mini-grid projects financed by local FIs | Reports from the TA recipients | Scarce RE IPP, off- or mini-grid private investment | One RE IPP, off- or mini-grid projects financed by local FIs | At least three (3) RE IPP, off- or mini-grid projects financed by local FIs, following the TA | All beneficiaries’ strong ownership and support for the implementation |
| Project/programme outputs | Outputs that contribute to outcomes | | | | | |
| 2. Technical Assistance: grant 2) Capacity building among local commercial banks and financial sector to enhance RE and project financing capabilities | | | | | | |
| All tools and processes in place strengthening the participating bank’s RE IPPs credit assessment, monitoring and portfolio systems, and increasing the transparency, speed and volume of RE IPP transactions. | Number of financial institutions benefited and their institutional capacity built Number of people in the Zambian financial sector trained | AfDB Monitoring | 0 0 | 1 20 | At least 2 50 | Zambian financial institutions committed for RE and climate financing and related capacity building |
| Activities | Description | | Inputs | | Description | |
| Building local financial institutions capacity for RE projects origination, due diligence, and monitoring <ul style="list-style-type: none">Deal origination and project appraisalCredit policy and risk management supportProduct and marketing alignment with target IPPsTraining on social and environmental assessment and monitoring | An embedded team of highly experienced international advisors will be recruited to constitute the sustainable energy financing team by being the nucleus around which the team will be formed. They will be embedded for a period of 18 months when they will simultaneously originate deals, develop the procedures, guidelines and manual related to the sustainable energy business and coach/train the local staff on site with the objective of reaching full autonomy after the 18-month period. These coaches will ensure that local staff recruited in the team gain the necessary skills and experience through training and participation to business operations in the first 18 months. | | Expert consultancy, other goods and services as required | | Consultants and other goods and services will be procured as per the TA budget and procurement plan set out in the funding proposal and its annexes. | |

⁴ Component 2 of the AfDB-GCF “Zambia Renewable Energy Financing Framework”

Annex 2: Risk Matrix

| Risk | Risk and Mitigation Measures |
|--|--|
| Insufficient period for training | <p>Risk: Proposed implementation period (18 months) may not be sufficient to train local staffs who do not come with any background in RE or Project Finance.</p> <p>Mitigation Measure: Based on the market sounding and consultations, the task team believes that 18 months should be a reasonable time frame for the establishment of a local RE investment team within benefitting institutions and subsequent knowledge transfer. During the implementation period, periodic evaluations will be carried out (e.g. once in a quarter) to assess the progress, which will ensure appropriate adjustment of the training plan.</p> |
| Participating institutions' cost | <p>Risk: Banks participating to this program have to bear the additional staffs' salary and associated administrative cost.</p> <p>Mitigation Measure: Negotiation with participating FIs will ensure that the number of staffs and associated salary are affordable to them. Commitments from beneficiaries will be recorded in the grant agreements.</p> |
| Lack of ownership by beneficiaries and internalization of expertise | <p>Risk: After the expiration of contracts between beneficiaries and experts, there is a risk of interruption where the beneficiaries might suspend RE investment.</p> <p>Mitigation Measure: The RE investment team will have at least two staff members from the beneficiaries' side, so that they are fully equipped and institutionalized to continuously invest in RE projects after the expert's departure.</p> |
| Limited transaction opportunities during the proposed project period | <p>Risk: Even after making enabling environment and capacity building for beneficiaries, a risk is that there may be no available RE projects in the country.</p> <p>Mitigation Measure: TA component 1 is assisting the public sector to create an enabling environment for private-led RE financing, which will sustain the RE project creation in the country.</p> |

Annex 3: Procurement Plan

| 1 | 2 | 3 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|----------|---|-----------------|----------------------|------------------|-----------------------------------|------------------------------------|----------------------------------|---------------------------|-------------------------------|-------------------------------|---------------------|
| Ref. No. | Description of Assignment | Source of Funds | Estimated Cost (USD) | Selection Method | Review by the Bank (Prior / Post) | Issuance of Expression of Interest | Finalize shortlist and issue RFP | Proposals Submission Date | Complete Technical Evaluation | Complete Financial Evaluation | Negotiate and Award |
| 1 | RE Transaction Expert for NAPSA | SEFA | 315,000 | ICS | Prior | Aug 2018 | Aug 2018 | Sept 2018 | Sept 2018 | Sept 2018 | Oct 2018 |
| 2 | RE Transaction Expert for ZANACO | SEFA | 315,000 | ICS | Prior | Aug 2018 | Aug 2018 | Sept 2018 | Sept 2018 | Sept 2018 | Oct 2018 |
| 3 | RE Investment Advisor(s) for developing investment/credit policy, risk management, ESIA, procedures, guidelines and manuals, for NAPSA | SEFA | 276,000 | ICS or QCBS | Prior | Aug 2018 | Aug 2018 | Sept 2018 | Sept 2018 | Sept 2018 | Oct 2018 |
| 4 | RE Investment Advisor(s) for developing investment/credit policy, risk management, ESIA, procedures, guidelines and manuals, for ZANACO | GCF | 225,800 | ICS or QCBS | Prior | Aug 2018 | Aug 2018 | Sept 2018 | Sept 2018 | Sept 2018 | Oct 2018 |
| 5 | Trainings, Workshops and Technical Support | SEFA | 594,000 | QCBS | Prior | Aug 2018 | Aug 2018 | Sept 2018 | Sept 2018 | Sept 2018 | Oct 2018 |
| 6 | Audit | SEFA | 15,000 | LCS | Prior | July 2020 | | Sept 2020 | | | Oct 2020 |

Competitive Methods are the following:

- Individual Consultant Selection method (ICS) for individual consultants; and
- Quality Cost Based Selection method (QCBS) for a firm.
- Least Cost Selection method (LCS) for audit.

Annex 4 : Detailed TA Budget

Attached in a separate excel sheet.

Detailed TA Budget for the Zambia RE Financing Framework

| | | | | Year 1 | Year 2 | Year 3 | Total | | |
|--|----------------------|------------|------------|-----------|---------|---------|-----------|---------|---------|
| Budget total | | | | 1 009 800 | 528 000 | 188 000 | 1 725 800 | | |
| Unit | Unit cost (USD/year) | # of units | Amount USD | | | | | | |
| RE Deals origination Support + RE workshops | | | | | | | | | |
| Expert for NAPSA | man.years | 200 000 | 0,5 | 100 000 | 0,25 | 50 000 | 0 | 150 000 | |
| Expert for ZANACO | man.years | 200 000 | 0,5 | 100 000 | 0,25 | 50 000 | 0 | 150 000 | |
| Workshops for the Financial Community | workshops | 20 000 | 4 | 80 000 | 4 | 80 000 | 4 | 240 000 | |
| Contingencies | lumpsum | | 10% | 28 000 | 10% | 18 000 | 10% | 8 000 | 54 000 |
| Sub-total | | | | 308 000 | 198 000 | 88 000 | 594 000 | | |
| Project Appraisal & coaching of local staff | | | | | | | | | |
| Expert for NAPSA | man.years | 200 000 | 0,5 | 100 000 | 0,25 | 50 000 | 0 | 150 000 | |
| Expert for ZANACO | man.years | 200 000 | 0,5 | 100 000 | 0,25 | 50 000 | 0 | 150 000 | |
| Contingencies | lumpsum | | 10% | 20 000 | 10% | 10 000 | 10% | 0 | 30 000 |
| Sub-total | | | | 220 000 | 110 000 | 0 | 330 000 | | |
| Development of procedures, guidelines and manual related to renewable energy | | | | | | | | | |
| Expert for NAPSA | man.years | 230 000 | 0,3 | 69 000 | 0 | 0 | 0 | 69 000 | |
| Expert for ZANACO | man.years | 230 000 | 0,3 | 69 000 | 0 | 0 | 0 | 69 000 | |
| Contingencies | lumpsum | | 10% | 13 800 | 10% | 0 | 10% | 0 | 13 800 |
| Sub-total | | | | 151 800 | 0 | 0 | 151 800 | | |
| Credit policy, risk management and ESIA | | | | | | | | | |
| Expert for NAPSA | man.years | 200 000 | 0,5 | 100 000 | 0,25 | 50 000 | 0,0 | 0 | 150 000 |
| Expert for ZANACO | man.years | 200 000 | 0,5 | 100 000 | 0,25 | 50 000 | 0,0 | 0 | 150 000 |
| Workshops for the Financial Community | workshops | 20 000 | 5 | 100 000 | 5 | 100 000 | 5 | 100 000 | 300 000 |
| Contingencies | lumpsum | | 10% | 30 000 | 10% | 20 000 | 10% | 0 | 50 000 |
| Sub-total | | | | 330 000 | 220 000 | 100 000 | 650 000 | | |

BOARDS OF DIRECTORS

Resolution No. B/ZM/2018/47 - F/ZM/2018/59

Adopted by the Boards of Directors, on a lapse-of-time basis on 20th July 2018

Republic of Zambia: SEFA Grant to finance part of the costs of the Technical Assistance relating to the Zambia Renewable Energy Financing Framework

THE BOARDS OF DIRECTORS,

HAVING REGARD to: (i) the Agreement Establishing the African Development Bank (the “Bank”); in particular Articles 1, 2, 12, 13, 14, 15, 17 and 32 (ii) the Agreement Establishing the African Development Fund (the “Fund”); (iii) the Technical Cooperation Agreement (the “TCA”) signed between the Bank, the Fund on the one hand and the Government of Denmark on the other hand, concerning the Sustainable Energy Fund for Africa (“SEFA”); (iv) the Proposal for the Conversion of the SEFA into a Multi-Donor Trust Fund; (v) the SEFA Operational Guidelines for SEFA Grants; and (vi) the SEFA grant proposal contained in document ADB/BD/WP/2018/153/Approval - ADF/BD/WP/2018/111/Approval (the “Proposal”);

RECALLING:

1. Document ADB/BD/WP/2011/111 - ADF/BD/WP/2011/69 entitled “Technical Cooperation Agreement Between the Government of Denmark and the African Development Bank Group Concerning the Sustainable Energy Fund for Africa” and the recommendations contained therein;
2. Resolution N° B/BD/2011/12 – F/BD/2011/07 adopted on 15 July 2011 by the Boards of Directors of the Bank and the Fund respectively, authorizing the establishment of the SEFA; and
3. Resolution N° B/BD/2013/14 - F/BD/2013/05 adopted on 19 September 2013 by the Boards of Directors of the Bank and the Fund respectively, approving the conversion of the SEFA into a multi-donor trust fund administered by the Bank;

NOTING that SEFA is a multi-donor trust fund established to promote renewable energy and energy efficiency in Africa through private sector-driven small to medium-sized projects;

DECIDE as follows:

1. To award to the Republic of Zambia (the “Recipient”), from the resources of SEFA, a grant of an amount not exceeding One Million Five Hundred Thousand United States Dollars (USD 1,500,000) (the “Grant”) to finance part of the costs of the Technical Assistance relating to the Zambia Renewable Energy Financing Framework;
2. To authorize the President to conclude a grant agreement between the Bank and the Recipient (the “Grant Agreement”), on the terms and conditions outlined in the Proposal;
3. The President may cancel the Grant if the Letter of Agreement is not signed within Ninety (90) days from the date of approval of the Grant by these Boards; and
4. This Resolution shall become effective on the date above-mentioned.