GUIDELINES FOR AN ENERGY EFFICIENCY CREDIT FACILITY

Consultancy Services to Implement Harmonised Regulatory/Technical Frameworks and Synthesised Renewable and Energy Efficiency Strategies in the EA-SA-IO Region

Prepared for:

Enhancement of a Sustainable Regional Energy Market – Eastern Africa, Southern Africa, and Indian Ocean (ESREM: EA-SA-IO)

Funded by the European Union

Prepared by:

In association with:

Multiconsult ECONOLER

CPCS Ref: 19479
May 23, 2022

www.cpcs.ca

Consultancy services to implement harmonised regulatory/technical frameworks and synthesised renewable and energy efficiency strategies in the EA-SA-IO region

This assignment will support the Common Market for Eastern and Southern Africa (COMESA), East African Community (EAC), Intergovernmental Authority on Development (IGAD), Indian Ocean Commission (IOC), and Southern African Development Community (SADC), in their collective efforts to promote the development of a sustainable regional energy market in the Eastern Africa, Southern Africa, and Indian Ocean (EA-SA-IO) region.

Report

This document provides policy makers with guidelines for the establishment of and operationalisation of an energy efficiency credit facility

Acknowledgements

The CPCS Team acknowledges and is thankful for the many stakeholders consulted, particularly the ESREM Project Team.

Opinions and Limitations

Unless otherwise indicated, the opinions herein are those of the authors and do not necessarily reflect the views of ESREM, COMESA, EAC, IGAD, IOC, or SADC.

CPCS makes **deliberate efforts to validate data obtained from third parties, but CPCS cannot warrant the accuracy of all data.**

Confidentiality Statement

This report contains material which is deemed commercially sensitive and/or confidential. This document may not be shared with third parties without **the prior written approval of ESREM.**

Contact

Questions and comments on this report can be directed to:

Anirudh (Rudy) Gautama
Project Manager
E: agautama@cpcs.ca

Table of contents

Table of figures

Acronyms / Abbreviations

AFD	Agence Française de Développement (the French Development Agency)
COMESA	Common Market for Eastern and Southern Africa
EA-SA-IO	Eastern Africa-South Africa-Indian Ocean
EAC	East African Community
EACREEE	East African Centre of Excellence for Renewable Energy and Efficiency
EE	Energy Efficiency
FI	Financial Institution
GHG	Greenhouse gas
HVAC	Heating, ventilation and air conditioning
IGAD	Intergovernmental Authority on Development
IOC	Indian Ocean Commission
MPI	Minimum performance indicator
RAERESA	Regional Association of Energy Regulators for Eastern and Southern Africa
REEESAP	Renewable Energy and Energy Efficiency Strategy and Action Plan
SACREEE	SADC Centre for Renewable Energy and Energy Efficiency
SADC	Southern African Development Community
TA	Technical Assistance

1 Introduction

1.1 Authority of the Guidelines

These Guidelines are prepared under the authority of the contract signed on 11 May 2020 between the Regional Association of Energy Regulators for Eastern and Southern Africa (RAERESA), an agency of the Common Market for Eastern and Southern Africa (COMESA), and CPCS Transcom International Limited (CPCS) to provide consultancy services "to implement harmonised regulatory/technical frameworks and synthesised renewable and energy efficiency strategies in the EA-SA-IO regions."

1.2 Purpose of These Guidelines

The 2018 SADC Status Report indicates that its Member States acknowledge the importance of energy efficiency as a cost-effective way to ensure energy security and reduce greenhouse gas emissions[1]. As a key example, the Status Report refers to the Renewable Energy and Energy Efficiency Strategy and Action Plan (REEESAP), which considers energy efficiency as the region's "first fuel." The Member States do realise, and indeed this is the case with all countries from the EA-SA-IO Regions, that there is a large untapped potential for implementation of energy conservation measures and the achievement of substantial savings across all key sectors, including buildings, industry, and transportation. This existing potential can be realised through large-scale adoption of more-efficient technologies, fuel switching, behavioural changes of energy consumers and improved production processes.

However, despite the increased availability of funding from international sources in the past several years, the lack of adequate financing for EE investments remains a major barrier for most EA-SA-IO countries, preventing them from fulfilling existing potential. Increasing the volume of capital through dedicated EE financing facilities will have a significant impact on the adoption of energy efficiency technologies throughout the region, which in turn will further develop the regional market, increasing the demand for such technologies and enhancing existing technical capacity. To address this issue, governments in these regions can focus on the design and establishment of EE facilities with the ability to provide new credit lines, share investment risks, and support energy efficient performance contracting to increase access to financing and promote energy efficiency projects in their countries.

The objectives of these guidelines are to:

- Provide guidance on the design and operationalisation of EE credit facilities
- Alert facility designers (governments or the private sector) of the key risks and barriers that would be encountered during structuring and/or roll out; and
- Emphasise the importance of setting clear objectives and performance indicators as well as developing a robust data collection and monitoring framework.

[1] SADC Renewable Energy and Energy Efficiency Status Report, 2018. https://www.ren21.net/wp-content/uploads/2019/05/SADC_2018_EN_web.pdf

2 Establishing EE Credit Facilities

2.1 The Regional Need

As stated, despite the increased availability of funding from international sources for energy efficiency projects in the past several years, the lack of adequate financing for EE investments remains a major barrier for most EA-SA-IO countries, preventing them from investing in EE projects and fulfilling existing potential. Increasing the volume of capital through dedicated EE financing facilities will have a significant impact on the adoption of energy efficiency technologies throughout the region, which in turn will further develop the regional market, increasing the demand for such technologies and enhancing existing technical capacity.

2.2 Key Stakeholders

Developing economies sometimes lack robust and established financial markets to facilitate funding for energy efficiency improvements. However, instead of creating or reforming a country's entire financial sector, governments can focus on a facility that can provide new credit lines, share investment risk, and support performance contracting to promote financing for energy efficiency.

Generally, there are five types of stakeholders who can play a pivotal role in the establishment and implementation of an EE credit facility:

- *Credit facility Funders (Debt capital providers):* Typically, International development financial institutions (IDFIs) looking to unlock the market potential for energy efficiency in developing countries by leveraging private capital.
- *Credit facility donors (Grant providers):* Usually International or Bilateral Development agencies. In some instances, may overlap with Credit Facility Funders.
- *Financial agents (intermediaries)*: Local financial institutions or specialised agencies, who channel the funds to the end-beneficiaries in search to expand their market share or penetrate new market niches by lending to EE projects
- *End-beneficiaries (borrowers)*: Local companies (industrial, commercial, agricultural, etc.) or private individuals/households looking for increased access to credit to implement EE projects
- *TA service providers*: Professional consultancy firms acting as a catalyst for robust level of EE credit uptake and overall popularisation of the Credit Facility. They usually support the financial intermediaries in identification and communication to potentially eligible borrowers, develop and implement the EE Facility`s communication and marketing strategy, deliver capacity building to the financial intermediaries and other local market stakeholders, evaluate the technical eligibility of projects applying for Facility funding, etc.

2.3 The Importance of EE Credit Facility Design

As developing EE finance markets are typically dynamic and imperfect, they tend to share a number of similar inefficiencies which can challenge the establishment and implementation of EE credit facilities, such as:

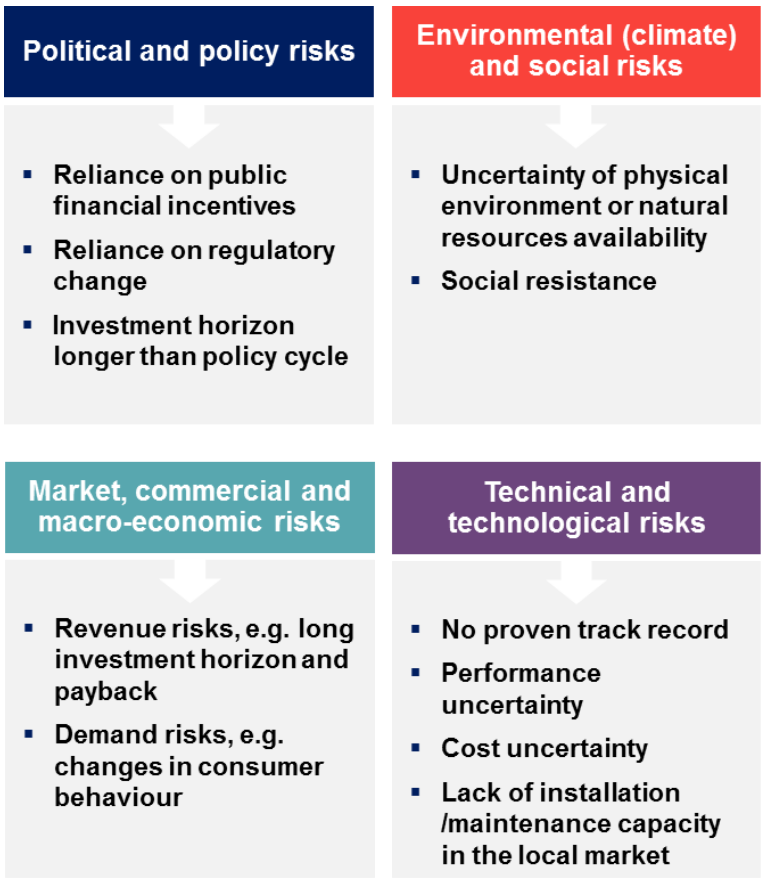
- A general lack of reliable information.
- Occasional misalignment of government, private sector, and financial institutions' interests.
- Focus on investment drivers other than profitability or energy efficiency.

Thus, it is important for the design of an EE Credit facility to target and try to overcome all of the above and more, by adequately structuring the financing mechanism and its activities from the outset. The below sections address the management of implementation risks and addressing barriers to the roll out of EE credit facilities.

2.4 Managing Implementation Risks

In the design process for an EE Credit Facility, it is important that governments should consider the optimal organisational structure for achieving the desired goals, the motivations and operational specifics of the implementing partner organisations, and the available capacities and bottlenecks within those organisations. It is often the case that risks in implementing EE Credit Facilities stem from poor design and the ensuing issues at an operational level. These risks will need to be accounted for during the design phase in order to minimise their implementation impacts. Such risks may include the following:

Figure 2-1: Types of risks



2.5 Addressing Implementation Barriers

In addition to managing the different risks facing an EE Credit Facility that need to be taken into account during its conceptualisation, there are also a number of potential barriers that can be

encountered during the roll-out/implementation of an EE Credit facility. It is recommended that these be identified in and taken into consideration prior to implementation.

These barriers include, but are not limited to:

- **Institutional, Legal and Regulatory barriers**: These barriers are related to the lack of enabling legislation or regulatory framework (such as PPP or EPC-enabling legislation); lack of willingness within the public authorities to support the local EE market, lack of EE prioritisation by the governments, and/or lack of clearly set EE and environmental goals at the national or regional level, etc.
- **Market barriers**: These barriers are related to the lack of capacity among local project developers to transform EE project ideas into bankable projects; absence of qualified EE technology and service providers in the local market (for example, no or nascent ESCO industry presence); perceived high initial investment costs (such as LED lighting or advanced cooling) and/or level of technical risk threatens market-driven energy saving measures, etc.
- **Financial sector barriers**: These barriers are related to the usually smaller scale of EE projects requiring financing compared to other investment projects (for example energy efficiency upgrading of a commercial or public building vs. infrastructure projects such as bridges or highways); lack of “hard” collateral associated with EE projects; high perceived end-user credit risks (no established borrowing capacities); longer term payback periods and longer loan durations of EE loans, etc.
- **Awareness and capacity barriers**: related to the lack of awareness among end users about efficient technologies and benefits they bring (for example, building energy management systems - BEMS, or streetlights with controllable light levels); lack of visibility about the impacts of the EE projects and uncertainty about future savings; lack of expertise to evaluate benefits and risks of EE projects among the financial institutions, etc.

Once these potential barriers are identified, governments or designated agencies responsible for the establishment and implementation of the EE Credit Facility will need to determine those barriers that can be pro-actively addressed by the Credit Facility and its TA components through specific measures.

Where feasible, it is recommended that a dedicated support program be created to work concurrently with, and draw upon the services of the EE Credit Facility. The features of the EE Credit Facility and its supporting modalities can be tailored in a way to tackle these barriers while fostering EE investments in the targeted market sectors. It is also recommended that an assessment of the local market be conducted in order to establish the order and priority for supporting modalities.

While many International Finance Institutions have focused on capacity building and awareness raising for EE financing, many countries still lack enabling legislation for both EE promotion and financing modalities for EE projects. Thus, it is imperative that EPC enabling legislation be prioritised for those countries that lack such modalities. In any case, it is recommended that any Technical Assistance initiatives be designed so that all the key institutional and market barriers can be addressed, paving the way to the establishment of EE projects and more concrete examples with which other barriers can be addressed. The table below outlines possible alleviation means and measures that can be employed by governments and responsible agencies to address a number of existing or identified barriers to implementation:

Figure 2-2 Measures to Address Implementation Barriers

Barrier type	Measures to address the barriers
Institutional, legal, regulatory	• Assistance to develop enabling bi-laws and regulations • Capacity building for Government officials
Market barriers	• Technical training of local equipment installers and energy service providers • Develop a catalogue of efficient technologies available in the local market and their investment costs • Awareness raising to demonstrate the financial benefits of EE projects through life-cycle cost analysis • Promote innovative business models requiring no upfront payment from end-beneficiaries (Energy-as-a-servce, ESCO)
Financial barriers	• Introduce risk sharing instruments (guarantees, insurances, etc.) • Offer concessional loan terms and conditions (longer loan period, subsidised interest rates, etc.) • Provide professional TA to local financial institutions to support them in assessing technical risks and lower the overall risk perception towards EE investments
Lack of general EE awareness	• Awareness raising campaigns to popularise EE among the local stakeholders and general population • Develop marketing and visibility materials (brochures, leaflets, social media posts and videos) to demonstrate successful projects and raise overall awareness of the benefits from EE investments

2.6 Setting Objectives and Minimum Performance Indicators

Once the market barriers and risks are identified, as well as the necessary measures to address them, governments and designated agencies will need to formulate implementation objectives aimed at overcoming these barriers and enhancing the uptake of EE technologies in the respective market.

International best practices have shown that clear, well-defined, and measurable objectives are the bedrock of successful EE Credit Facility structuring. The following are examples of EE Credit Facility objectives:

- Decreasing the energy intensity of a national/regional economy and increasing its competitiveness by optimising operational costs
- Reducing the dependence on imported fuels and improving national trade balance with respect to fossil fuels importation
- Lowering the demand pressure on national and local electricity grids
- Increasing grid reliability and limiting the technical failures and shut-down occurrences such as brown-outs, black-outs or service cuts.
- Demonstrating the feasibility of one or more specific EE technologies in the market.

- Improving the quality of the local environment by reducing greenhouse gas emissions.

Depending on the ultimate results pursued by the government or designated implementation agency, the key objectives of an EE Facility should be interrelated. It is also good practice to limit to the objectives to three or fewer in order to maximise available resources. A very broad list of Facility objectives (even if well defined and easily measurable) may be too ambitious and can lead to constraints in Facility effectiveness and hinder the implementation or roll out processes.

To track the progress of the EE Facility towards achieving the set objectives, it is recommended that governments or designated implementation agencies develop a logframe (logical framework) of minimum performance indicators (MPI). Generally, key MPIs can be grouped in three types:

- Performance indicators with reference to the energy system of the country: these are the indicators that are used to track the contribution of the EE facility to the overall status of the national/regional energy sector. For example:
  - primary energy savings generated by the facility;
  - reduction in volumes of imported oil (in tonnes oil equivalent), etc.

  It should be noted that these indicators, while useful for governments, may be unclear / confusing to the implementing financial institutions as they are frequently comprised of macro parameters (energy system losses, import fuel mix, etc.).

- Performance indicators with reference to single project: These are associated with project energy savings or other related measures. For example:
  - each financed project to achieve a minimum threshold of energy savings (usually 20%+) or GHG emissions reduction (for fuel switch projects),
  - At least 50% of project`s benefits to derived from energy savings,
  - Maximum payback on investment period from energy saving to be within a set range (e.g. up to 7-10 years), etc.

- Performance indicators with reference to the cumulative EE Facility portfolio: These are the indicators that can later be used for designing national EE policies and market development instruments. They would usually measure the overall financial and energy performance of the financing instrument. Such indicators can be:
  - energy saved/GHG reductions per dollar disbursed;
  - energy and maintenance costs avoided annually;
  - amount of additional private capital mobilised per dollar lent (leverage ratio), etc.

Governments or responsible implementing agencies should ensure that the set target values for each indicator are achievable in the respective market and that financed EE projects will still be commercially viable. Should some EE project types prove to be financially unviable under the defined minimum performance indicators, an investment grant component can be added to Facility`s debt financing – this is in order to incentivise the project owners to go the extra step and adopt higher efficiency solutions with higher energy and environmental impact.

To achieve the desired performance indicator rates, governments should consider setting up a framework of criteria every project should meet to obtain financing under the Credit facility (screening criteria). The eligibility criteria that each funded investment must meet need to be well defined and aligned with the overall Facility performance indicators.

3 Facility Structure and Operations

3.1 Determining Eligibility of Projects

Overall, government will want to maintain the viability and sustainability of EE Credit Facilities for the long term in order to achieve its objectives in energy savings and bring about change in the national market. One of the ways that governments can maintain Facility viability and sustainability is to support to those projects that lead to measurable reductions in the average energy consumption and/or reduction of GHG emissions in buildings, industries, SMEs, agribusiness, commercial services and/or households.

In order to ensure that the financed projects are in line with and are materially contributing to achieving the key objectives of the EE credit facility, these projects should be assessed against a set of eligibility criteria which may be the primary factor determining whether the loans turn out to be additional or not – (i.e, whether the project would be implemented without the EE support provided).[2] Thus the Credit Facility should aim to support project that are "additional" - meaning those EE projects that would not happen without additional support, for example, the use of solar hot water heater over conventional water heater, or the use of highly efficient air conditioning units (albeit at higher costs), over those with average performance but lower costs.

There are several categories of eligibility criteria that may be employed to ensure that the credit facility resources are allocated to the most efficient projects, they are discussed in detail below:

3.1.1 Technical Eligibility

In general, the EE Credit Facility will be providing support to investment projects that allow energy consumers to use less energy for achieving same level of energy service (output). However, in order to meet the overarching objectives such as energy savings and emissions reduction targets (such as the NDC), or limiting/reducing fossil fuel use and importation, it may be necessary to prioritise access to the Credit Facility for specific types of projects that can significantly contribute to these objectives where appropriate. These can be (among others):

- Projects related to improvement of the energy performance in the buildings sector (building retrofit). These are usually investments related to: building envelope insulation, heating, ventilation, and air conditioning (HVAC) improvement, lighting system efficiency, etc.
- Projects related to improvement of energy performance in the industrial or agricultural sector. These are investment projects directly related to replacement of existing inefficient equipment with more efficient machinery or retrofit of the existing equipment in line with improving its energy efficiency features of a business enterprise.
- Projects related to use of best performing new equipment types of construction technologies ("Greenfield" projects for which no pre-implementation energy consumption data is available) but which can be considered eligible in case the owner intends to use the best available EE technologies.
- Projects related to optimisation of energy consumption in public lighting networks
- Projects related to introduction of efficient cooking technologies and methods.

[2] Programs subsidising energy efficiency investments are measured on whether or not the project would happen without the additional support.

Depending on the established Facility objectives additional criteria may need to be put in place to ensure that specific objectives are met as facilitated by the Credit Facility modalities. For example, to ensure that national or NDC commitments for energy/environmental impacts objectives are met, the investment projects will be required to meet minimum technical criteria, such as:

- For building or industrial process retrofitting projects (incl. equipment replacement or improvement), a reduction of at least 20% of the energy consumption or 20% decrease of the GHG emissions (in tCO2 / p.a. equivalent) can be required. Project eligibility can be assessed by comparing the annual energy consumption before and the expected consumption level after the implementation of the project.
- For projects that involve introduction of new machinery/equipment related to expansion of the production capacity of the borrower, an overall decrease of 20% or more in the total energy consumption or the GHG emissions may not be possible. In such cases the project may be required to achieve 20% or more energy/GHG reduction per unit of output before and after project implementation.
- "Greenfield" projects (ones for which no pre-implementation energy consumption data is available) can also be considered eligible in case these target implementation of best available EE technologies – such as those that are considered top performing according the international or regional standards.

Other criteria covering other categories such as gender or under-served communities may also be warranted. These will need to be set up with assistance from appropriate sectors of the population from the outset.

3.1.2 Borrowers/End-Beneficiaries

As discussed, another challenge for Credit Facilities is the additionality of the projects supported. In cases from other facilities such as China's, it was found that support went to projects undertaken by larger, more financially sufficient enterprises who would have implemented the projects regardless, which may have resulted in less resources available for enterprises that actually needed such support.[3] Therefore, a set of criteria may be applied with reference to the end-user of the EE credit mechanism in order to reduce the possibility of these situation, as appropriate.

Such criteria may relate to:

- Type of borrower: access to the credit facility may be restricted to a certain group of market participants (e.g. SMEs only, large corporates, private individuals and households, etc.)
- Type of industry: the EE facility may target only a number of preferred economy sectors (e.g. agriculture and forestry, mining, food processing, etc.)
- Geography: the EE credit facility may target projects in specific regions/countries. Or to finance projects of borrowers domiciled in specific countries/regions.
- List of banned borrowers: the EE credit facility may be closed for borrowers that perform activities in breach of ecological, health or labour safety standards in the respective country.

[3] *Assessing the Impact of IFC's China Utility-Based Energy Efficiency Finance Program Energy Efficiency Finance*. The World Bank, 2010.

3.2 Technical Assistance

Generally, conventional financial institutions are usually focused on their core business and are unable to adequately identify and assess technically complicated EE projects or are unwilling to develop their own technical capabilities as it is regarded as too remote from the core business domain. Thus, dedicated EE Credit facilities may fail to achieve their targets due to a of lack of internal technical capacity within the financial institutions which are deploying these facilities.

In order to increase Credit Facilities' chances of success, additional Technical Assistance (TA) may be required, as appropriate. Depending on how the Credit Facility is set up to address lack of market capacity and other provisions, a facility can either provide direct grants to support TA activities. Grants can also be directed by IFIs or set aside by the governments for this purpose.

Professional organisations dedicated to TA support and experience in TA activities can play a key role and act as a catalyst for a robust level of EE Credit Facility market uptake. These TA providers may have the following responsibilities and perform activities such as:

- Support the implementing financial institution in identification of and communication with potentially eligible borrowers and projects
- Support the FIs in the development of EE specific lending products
- Development and implementation of an EE specific communication and marketing strategy and its integration into FIs general marketing strategies.
- Conduct technical evaluation of EE finance projects and confirm their eligibility for EE credit facility allocation
- Deliver EE finance training workshops to the FIs to build sector-specific financial expertise among their credit officers, financial analysts, and risk managers.
- Support potentially eligible borrowers to identify viable EE measures and design technically and financially viable project proposals.
- Support the FIs in designing and developing sustainable environmental and social policies
- Develop a standardised List of Eligible Measures and Equipment (LEME) which are available in the respective national/regional market.
- Perform verification of the proper implementation of financed projects and collect post-implementation energy consumption data for reporting needs
- Prepare EE credit facility energy and environmental impact reports for Authorities and Funders

3.3 Financial Features and Conditions

The final financial structure of the EE facility need to take into consideration a focus on the preferred project types and sectors. There are, however, some universal rules and principles that should be followed. One such principle is related to the need for a relatively long payback period of most EE project types, which creates the need for longer duration of the EE financing. EE financing is also usually associated with weak collateral, which must also be taken into consideration when structuring the financial offerings of the EE facility.

The EE credit facility financing features should cover all types and sizes of potentially eligible projects, and, if needed, may be adapted depending on the changing government objectives or Funders' goals. Key financing features that need to be defined are:

- **Investment and loan size thresholds**. Depending on the targeted market segments and borrower types the minimum and maximum loan size of an EE facility may widely vary. An EE facility that targets large-scale projects will potentially be associated with

lower management and administrative costs but will only be able to support small number of projects and not achieve the desired market transformation effect.

- **Loan ratio (intensity).** A credit facility financing up to 100% of the project costs will be appealing for borrowers but will fail to mobilise private sector investments into the EE market. It is therefore advisable for the project owners to be required to co-finance the project costs.
- **Loan currency.** Typically, the EE Credit facility Funders extend financing to Financial Intermediaries in international currency (USD, EUR), while the FIs are required to offer loans to end-borrowers both in international and local currency. All else being equal, project owners would almost always prefer to borrow in local currency since most of them would be generating revenues in the same currency. The FIs, however, have to bear the significant currency risk over a very long term, which can be very costly and financially unviable. Some international financial institutions offer currency risk mitigation instruments so that the local FIs can offer EE loans both in USD/EUR and in local currencies. On average, borrowing in local currency will come at a higher cost for the project owners.
- **Loan duration**. EE investments are associated with longer payback periods and require long term debt financing (i.e. over 5 years). The EE credit facility should match the market needs for longer term financing, but on the other end should be structured in a way to avoid supporting only the low hanging fruit (projects with excessively short pay-back periods). To do so, the facility should also set minimum loan tenor values (e.g. at least 3 years)
- **Loan grace period**. Typically, EE projects require some implementation time, during which the project is generating no revenue. The loan grace period should depend on each eligible project's specific implementation schedule and the FIs will have to decide whether to extend a grace period on loan principal.
- **Loan pricing.** Generally, EE finance facilities offer concessional loans (with subsidised interest rates and fees below the prevailing market conditions). The FIs should be flexible to apply various pricing strategies (e.g. fixed or floating interest rates, differentiated pricing in local and foreign currency, etc.) depending on a multitude of factors: loan duration, borrower credit, loan currency, etc.
- **Loan collateral.** Ideally, the EE finance facility should only take the project equipment and future cash-flows as loan collateral. Unfortunately, it is often the case that FIs do require more "tangible" security in form of mortgage on land or real estate, which is a major impediment for EE financing uptake. Specialised credit risk sharing instruments, such as guarantees, and insurances can be used to complement the loan collateral. Such instruments are available in the SACREEE and EACREEE regions (e.g. ARIZ and EURIZ guarantee facilities offered by AFD/Proparco, etc.)
- **Investment premia (grants).** To render EE investments more affordable and financially attractive to project owners, the EE credit facility may be blended with an investment premium component. Grant funds may be provided by international donors or through national budgets. Investment premium may be used in multiple ways – to subsidise the loan interest, to repay part of the loan principal, as a cash handout, etc. It is important that the grant funds are disbursed only upon successful project implementation (verified by an independent party). The investment grant may be used to stimulate the uptake of certain technologies or to induce EE investments in target regions. The grant amount under the EE facility may be calibrated to reflect its key priorities and offer various grant rates depending on the project type and technology used, project location, type and financial profile of the borrower, etc.

3.4 Project Identification, Evaluation, and Origination Process

When an EE Credit facility is being rolled out through partner financial intermediaries, it is of utmost importance to ensure that this dedicated EE Facility is integrated into the FIs lending procedures as seamlessly as possible to avoid delaying the usual project processing times. The role of a professional TA service provider would be to structure and implement the EE facility in a way which is least disruptive for the day-to-day operations of the hosting FIs as well as to carry out all technical data collection and project evaluation and monitoring activities, thus allowing the FI staff to focus on their core business – performing the financial assessment. Significant changes in usual FI lending procedures and documentation or processing times (due to additional technical evaluation requirements) can adversely impact the successful implementation of a new EE financing product. International experience indicates that the lack of TA support to FIs or the inability of technical consultants to provide timely services that are properly integrated into partner FIs' processes negatively impacts EE financing facilities.

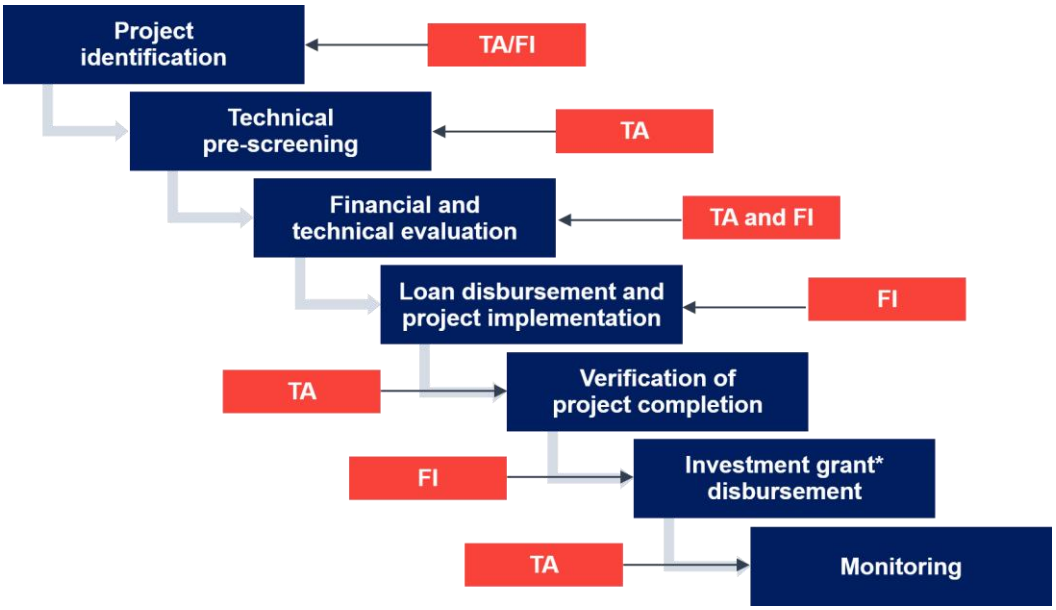
The successful EE facility would typically have a rather simple implementation scheme with well-defined roles and responsibilities and streamlined project identification and evaluation processes, whereby:

- The technical eligibility assessment of projects is performed by a professional TA consultant and is well integrated into FI`s loan approval processes and is carried out concurrently with the financial risk assessment.
- Communication between the TA provider and the FI team is efficient and fluent;
- The monitoring and evaluation of projects are timely and synchronised with the FI`s internal project review processes.
- Reporting is streamlined.

The diagram below outlines a possible EE Credit facility operational process flow (sequence of processes and responsible parties), assuming availability of professional TA service provider and an investment grant premium for the successful borrowers. Some activities (e.g. identification of potentially eligible projects) can be performed by either the partner FI or the TA service provider.

The implementation process can be further streamlined by introducing a list of pre-approved EE measures and equipment (LEME), which would shorten the timelines for technical project evaluation and approval. The LEME sets out the key specific technical and energy minimum performance characteristics of the covered equipment types, which allows for easy estimation of the projected energy and environmental impacts and quick eligibility check and loan approval. Each project that involves purchase and installation of equipment that is included in the LEME will automatically be deemed eligible for financing under the EE Credit facility. The evaluation using LEME approach can be further standardised by developing an electronic tool (online or MS Excel based), where by typing basic product information (e.g. equipment brand and model) the user can obtain confirmation of project eligibility. The credit officers at the partner FIs can be trained to use the LEME and quickly process loan applications by printing out simplified eligibility certificates, which contain information as to: equipment type, brand, model, investment cost, expected energy performance, environmental impact, etc.

Figure 3-1: EE Credit facility operational process flow



3.5 Data Collection and Project Monitoring

Collecting additional information to assess the actual performance of the financed projects upon their completion is a key prerequisite for effective management of the EE facility so as to enable its periodical update and adjustment to match the ever-changing market conditions. The implementing FIs, supported by professional TA provider can collect and analyse performance data both at the portfolio and separate project level. Information about the financial, energy, social or environmental performance of the financed projects will be subject to monitoring and data collection activities.

The performance of the EE facility portfolio (or separate projects) can be measured using the following metrics:

- annual rate of fuel/energy savings (e.g. GWh/p.a., tons of diesel p.a.)
- annual greenhouse gas (GHG in tCO2 equivalent) emissions reductions
- annual energy costs avoided at end beneficiary level (e.g. in USD p.a.)
- amount of energy saved or GHG emissions reduced per dollar of EE facility investment
- number of jobs created in the local communities, etc.

To enhance the monitoring and data collection activities of the EE facility, all end-beneficiaries should be obliged (by a clause in their financing agreements) to submit the following information on annual basis:

- fuel/energy consumed by the new equipment/machines under real operating conditions for EE projects;
- fuel/energy consumed by their building after the implementation of the EE measures funded by the Facility
- annual fuel/energy bills prior to and after the implementation of the EE measures funded by the Facility

The energy/environmental performance results achieved by the EE Facility will then not only be useful for updating the structure and conditions of the Facility itself but, if shared with National authorities or Local and International Funders, may be used for national / regional policy development, reporting on national sustainable commitments progress and design of new financial mechanisms.

4 Recommendations

4.1 Recommendations for Best Practices

As discussed in these Guidelines and elsewhere, many countries in the EA-SA-IO Regions are working to introduce and implement energy efficient projects. Some countries are further along this process, while others have just begun. Regardless of a country's development state, the existence of an EE Credit Facility can help to accelerate the adoption of EE projects at the national and local levels by increasing access to project financing.

It is important to note that implementation of EE Credit Facilities share a number of key success factors, which include their identification of objectives, management of risks, and resources and efforts to address barriers to implementation. Other considerations include the additionality of projects, and the need for local knowledge, capacity building support, and financial leverage. Finally, the need to set indicators, and the data collection and monitoring process are also contributors of success.

It is also important to note that while working with a limited number of larger, higher energy users may provide a positive demonstration effect with respect to cost-effective energy savings and emissions reduction for both end users and participating financial institutions, an EE Credit Facility may be the most direct means of addressing the energy efficiency of small and medium-sized enterprises (SMEs) and the public sector in the EA-SA-IO Regions.

CONTACT INFORMATION

Suite 201

First Floor Warrens Court

48 Warrens Industrial Park

Warrens

St. Michael, Barbados

T - +1-246-622-1783

hello@cpcs.ca

www.cpcs.ca