Operating Manual for the SEF Program

Sustainable Energy Facility (SEF) for the Eastern Caribbean

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Sustainable Energy Facility (SEF) for the Eastern Caribbean Expanded (SEF-Expanded)

Caribbean Development Bank

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Abbreviations

ANT	Antigua and Barbuda
AFS	Audited Financial Statements
BMC	Borrowing Member Country
CDB	Caribbean Development Bank
CORE	Co-financing Mechanism for Renewable Energy and Energy Efficiency
CTF	Clean Technology Fund
DMI	Dominica
DPSP	Dedicated Private Sector Program
EA	Executing Agency
ECC	Eastern Caribbean Countries
ECERA	Eastern Caribbean Energy Regulatory Authority
EE	Energy Efficiency
EIA	U.S. Energy Information Administration
EIRR	Economic Internal Rate of Return
ENPV	Economic Net Present Value
ESA	Electricity Supply Acts
E&S	Environmental and Social
ESIA	Environmental and Social Impact Assessment
ESMR	Environmental and Social Management Report
FI	Financial Intermediary
GCF	Green Climate Fund
GCI-9	Ninth General Increase in the Resources of the Inter-American Development Bank
GCL	Global Credit Loan
GDP	Gross Domestic Product
GE	Geothermal Energy
GEF	Global Environment Facility
GrCL	Grant Convertible to Loan
GRN	Grenada
IDB	Inter-American Development Bank
IFC	International Finance Corporation
IPP	Independent Power Producers
IRENA	International Renewable Energy Agency
LCOE	Levelized Cost of Energy
LED	Light Emitting Diode
OECS	Organization of Eastern Caribbean States
OC	Ordinary Capital of IDB
OCR	Ordinary Capital Resources of CDB
OM	Operating Manual
OSF	Other Special Funds
PBL	Policy Based Loan
PCR	Project Completion Report
PPA	Power Purchase Agreement
PPP	Public Private Partnerships
PV	Photovoltaics

RE	Renewable Energy
REEEU	Renewable Energy and Energy Efficiency Unit
SEF	Sustainable Energy Facility
SE	Sustainable Energy
SFR	Special Funds Resources of CDB
SPV	Special Purpose Vehicle
STK	Saint Kitts and Nevis
STL	Saint Lucia
SSF	Safeguard and Screening Form for Screening and Classification of Projects
STV	Saint Vincent and the Grenadines
SWH	Solar Water Heaters
UNFCCC	United Nations Framework Convention on Climate Change
US	United States
WB	World Bank

Definitions

CTF Agreement: the non-reimbursable investment financing agreement No. GRT/TC-15205-RG, entered into between IDB and CDB on October 20, 2015.

CTF Eligible CDB Member Country/ies: Dominica, Grenada, St. Kitts & Nevis, St. Lucia, and St. Vincent & the Grenadines.

CTF Final Beneficiary/ies: (i) The governments of the CTF Eligible CDB Member Countries, (ii) a public utility of a CTF Eligible CDB Member Country or (iii) a SPV legally established in a CTF Eligible CDB Member Country under a PPP, which meets the eligibility criteria for the Program, as established in this OM, and receives a Sub-grant from CDB to finance certain activities contemplated by the Program, in accordance with the terms and conditions set forth in the CTF Agreement and this OM.

Eligible CDB Member Countries: collectively the CTF Eligible CDB Member Countries, GCF Eligible CDB Member Countries the, GEF Eligible CDB Member Countries and the IDB OC Eligible CDB Member Countries

Final Beneficiaries: collectively the CTF Final Beneficiaries, the GCF Final Beneficiaries and the GEF Beneficiaries.

GCF Agreement:

GCF Eligible CDB Member Country/ies: Dominica, Grenada, St. Kitts & Nevis, St. Lucia, and St. Vincent & the Grenadines.

GCF Final Beneficiary/ies: (i) The governments of the GCF Eligible CDB Member Countries, (ii) a public utility of a GCF Eligible CDB Member Country or (iii) a SPV legally established in a GCF Eligible CDB Member Country under a PPP, which meets the eligibility criteria for the Program, as established in this OM, and receives a Sub-grant from CDB to finance certain activities contemplated by the Program, in accordance with the terms and conditions set forth in the GCF Agreement and this OM.

GEF Agreement: the non-reimbursable investment financing agreement No. GRT/FM-15208-RG, entered into between IDB and CDB on October 20, 2015.

GEF Eligible CDB Member Country/ies: Antigua & Barbuda, Grenada, and St. Vincent & the Grenadines.

GEF Final Beneficiary/ies: The governments of the GEF Eligible CDB Member Countries.

Grant convertible to loan (GrCL): a grant that be converted into a loan if the exploration phase of geothermal development is successful as defined in Section 4.5.4.

IDB Loan Agreement: the Loan Contract No. 3561/OC-RG entered into between IDB and CDB on October 20, 2015.

IDB OC Eligible CDB Member Country/ies: Antigua & Barbuda, Dominica, Grenada, St. Kitts & Nevis, St. Lucia, and St. Vincent & the Grenadines.

Loan Convertible to Grant (LoCG): a loan that can be converted into a grant if the exploration phase of geothermal development is not successful as defined in Section 4.7.4.

OM or Operating Manual: this operating manual of the Program, as amended from time to time.

Program: the program entitled “Sustainable Energy Facility for the Eastern Caribbean” described in the Annexes to the IDB Loan Agreement, CTF Agreement and GEF Agreement.

Sub-borrowers: (i) The governments of the IDB OC Eligible CDB Member Countries, (ii) a public utility of an IDB OC Eligible CDB Member Country or (iii) a SPV legally established in an IDB OC Eligible CDB Member Country under a PPP, which meets the eligibility criteria for the Program, as established in this OM, and receives a Sub-loan from CDB to finance certain activities contemplated by the Program, in accordance with the terms and conditions set forth in the IDB Loan Agreement and this OM.

Sub-grants: The sub-grants granted by CDB to the Final Beneficiaries to finance certain activities contemplated by the Program, in accordance with the terms and conditions set forth in the CTF Agreement or the GEF Agreement (as the case may be) and this OM.

Sub-loans: The sub-loans made by CDB to Sub-borrowers to finance certain activities contemplated by the Program, in accordance with the terms set forth in the IDB Loan Agreement and this OM.

Sub-projects: The activities contemplated and considered eligible by the Program, financed by the resources of the Program and executed by the Sub-borrowers or Final Beneficiaries (as the case may be), in accordance with the terms and conditions set forth in the IDB Loan Agreement, the CTF Agreement and the GEF Agreement (as the case may be) and this OM.

1 Introduction to the Operating Manual

This is the Operating Manual (OM) for the Sustainable Energy Facility (SEF) for the Eastern Caribbean. It establishes the rules and procedures for implementing the SEF, to ensure that the individual Sub-projects financed with SEF resources are completed successfully. The OM guides the Caribbean Development Bank (CDB), the Inter-American Development Bank (IDB) and other contributors, in executing the SEF and Sub-borrowers and Final Beneficiaries in accessing and utilizing the resources of the SEF.

The objective of the SEF is to contribute to diversifying the energy matrix in the independent Eastern Caribbean countries (ECC), namely Antigua and Barbuda, Dominica, Grenada, Saint Kitts and Nevis, Saint Lucia, and Saint Vincent and the Grenadines, in an effort to reduce the cost of power generation and electricity prices. The SEF will support the implementation of Energy Efficiency (EE) and Renewable Energy (RE) technologies, with particular emphasis on geothermal energy (GE), to reduce the region's dependency on liquid fossil fuels for power generation. The SEF will help overcome barriers to the development of RE and EE projects by providing concessional funding and technical assistance.

The SEF will be implemented by CDB and funded by multiple donors including the IDB, Clean Technology Fund (CTF), the Green Climate Fund (GCF), the Global Environment Facility (GEF), and CDB. Additionally, other donors have expressed interest in providing parallel financing.

1.1 Objective of the OM

The objective of the OM is to ensure the successful implementation of the SEF and the Sub-projects financed by the Program. To achieve this, the OM establishes the rules and procedures that govern the implementation of the SEF. This OM guides CDB as it works with governments and utilities to achieve the objectives of the SEF and implement their RE energy and EE projects. More specifically, the OM ensures the successful completion of the SEF by:

- **Establishing operating, institutional, and financial arrangements**. This ensures that all actors clearly understand how the SEF works. It provides all actors with the information required to successfully implement the Program
- **Defining roles and responsibilities**. This ensures that the roles and responsibilities of each actor are fully defined, which helps improve accountability
- **Establishing key milestones**. This allows the donors, and especially CDB, to know when activities should be carried out and to monitor the progress of activities. Thus, it allows all actors to determine if the SEF is delayed because of challenges, and then to determine the best way to address these challenges.

1.2 Structure of the OM

The OM has six sections, which describe the processes, procedures, and institutional and operating arrangements for the SEF. Each section describes a different aspect of the SEF. The sections are organized as follows:

- Section 1 introduces this OM.
- Section 2 presents an overview of the SEF. Specifically, it describes its objectives and components, and explains how the SEF is funded.
- Section 3 describes the institutional arrangements for the SEF. This means that it describes the roles and responsibilities of each of the actors involved in management, implementation, and oversight of the SEF. It also describes the relationship between these actors.
- Section 4 describes the operating arrangements for the SEF. For each of the SEF's components, this section describes its objective, the entities eligible to receive funding from the component, and the process for providing funding.
- Section 5 presents the financial arrangements for the SEF. Specifically, it describes the conditions under which funding is provided to the SEF and procurement rules that must be followed.
- Section 6 describes the arrangements for the reporting and oversight of the SEF.

2 Overview of the Sustainable Energy Facility (SEF) for the Eastern Caribbean

This section provides an overview of the SEF. Specifically, it describes its objective (Section 2.1), the structure of the SEF (Section 2.2), the sources of funding (Section 2.3), and the beneficiaries (Section 2.4**Error! Reference source not found.**).

2.1 Objective of the SEF

The SEF's objective is to contribute to diversifying the energy matrix in the ECC by supporting the development of RE projects, with an emphasis on GE projects, and EE projects. More specifically, the SEF will contribute to the reduction in the cost of power generation and electricity tariffs. The SEF will support the implementation of EE and RE technologies to reduce the region's dependency on liquid fossil fuels.

The SEF is expected to facilitate or lead on the substitution of up to 60MW[1] of liquid fossil fuel based generation with geothermal power, representing about 70 percent of current aggregated baseload demand for the ECC. The SEF is also expected to fund EE projects, with emphasis on retrofitting street lights and public buildings. This is expected to result in:

- A reduction from an estimated average cost of service of US$0.32/kWh in 2016 to US$0.27/kWh—a 15 percent reduction
- A reduction in fossil fuel imports of 802,000 barrels per year (a 44 percent annual reduction, when the ECC imports ~1.8 million barrels/year). This would reduce the average fuel imports by US$56 million at an oil price of US$70 per barrel (or US$40 million at an oil price of US$ 50 per barrel)
- Reductions in CO_2 emissions of 375,930 metric tons per year.

2.2 Structure of the SEF

The SEF supports the implementation of RE and EE projects through its three components. Component 1 provides funding for EE projects. Component 2 provides funding for regulatory framework, institutional strengthening, and capacity building. Component 3 focuses on RE projects, including geothermal energy and other RE.

Table 2.1 below illustrates the components of the SEF, the type of activities funded, the source and type of funding and the eligible sub-borrowers/final beneficiaries.

[1] Correspond to geothermal projects in DOM 10MW, GRE 10MW, Nevis 10MW, SL 20MW, and SVG 10MW. The first geothermal project that is included in the SEF pipeline will most likely receive funding is the project in SVG.

Table 2.1: The Components of the SEF

Component	Component 1 Energy Efficiency	Component 2 Regulatory Framework, Institutional Strengthening, and Capacity Building	Component 3 Renewable Energy
Type of Activities Funded	Retrofitting government buildings and installing or replacing streetlights with energy efficient ones	▪ Institutional strengthening and capacity building for CDB ▪ Technical assistance for reforming regulatory, legal, and policy framework, and institutional strengthening and capacity building for local authorities in the ECC ▪ PBL for reforming the regulatory, legal, and policy framework of the energy sector	▪ Geothermal projects ▪ Other RE projects for public sector (such as wind power, solar V, hydro, and waste to energy
Source and Type of Funding	CDB OCR/SFR (Loan and Grant) IDB OC (Loan) GEF (Grant)	CDB OCR/SFR (Loan and Grant) IDB OC (Loan) GCF (Grant) GEF (Grant)	CDB OCR/SFR (Loan and Grant) IDB OC (Loan) GCF (Loan or Grant) GEF (Grant) CTF (Contingent Grant)
Eligible Sub-borrowers/ Final Beneficiaries	Governments of Eligible CDB Member Countries Public Utilities Eligible CDB Member Countries	Governments of Eligible CDB Member Countries	Governments of Eligible CDB Member Countries Public Utilities Eligible[2] CDB Member Countries SPV legally established in Eligible CDB Member Countries under a PPP

Each of the components is described in more detail below, and the operating arrangements are presented in Section 0:

- **Component 1—Energy Efficiency (EE)**. This component provides loans and grants to Sub-borrowers and Final Beneficiaries focused on promoting

[2] CDB can provide OC resources to privately-owned utility companies

the implementation of EE measures such as: (i) retrofitting government buildings; (ii) installing new or replacing existing streetlights with more efficient ones; and (iii) increasing power generation efficiency, including transmission and distribution loss reduction programs.

- **Component 2—Regulatory Framework, Institutional Strengthening, and Capacity Building**. This component provides non-reimbursable technical assistance to CDB, and to the ECC governments, including their ministries responsible for energy and electric utilities.
  - **Non-reimbursable technical assistance to CDB** will focus on strengthening its capacity as required to implement the Program including: (i) consulting services to provide specific skills and advisory services when required for sub-project preparation; (ii) drafting of legal documents (i.e. loan contracts for Sub-loans and Sub-grants); and (iii) further developing staff capacity to evaluate and execute Sub-loans and Sub-grants.
  - **Non-reimbursable technical assistance Grants and Loans (including PBLs) to the ECC governments** for the purpose of: (i) supporting an effective legal, policy and regulatory framework for the implementation of RE and EE projects and PPPs; (ii) strengthening their technical, institutional, environmental and regulatory capacity; (iii) transaction advisory support to structure projects and negotiate with private partners; and (iv) providing opportunities for training to acquire the necessary skills to enable RE and EE development and execute RE and EE projects.
- **Component 3—Renewable Energy (RE)**. Component 3 will fund two types of RE:
  - **Variable RE** such as wind power and solar Photovoltaic (PV)
  - **Baseload RE** such as geothermal energy (GE), hydro, and waste-to-energy projects.
    - SEF resources for geothermal projects coordinated through the REEEU of CDB. CDB will track financing for GE development. SEF will provide contingent recovery grants and/or loans to governments of Eligible CDB Member Countries, to public utilities[3] in Eligible CDB Member Countries and/or SPVs established in Eligible CDB Member Countries under PPPs for the stages of geothermal development including pre-investment activities (surface studies, drilling of exploration/slim hole wells), exploration activities (exploratory drilling of full size wells and feasibility studies), and field and power plant development (production drilling, construction of power plants, and substations and transmission lines).

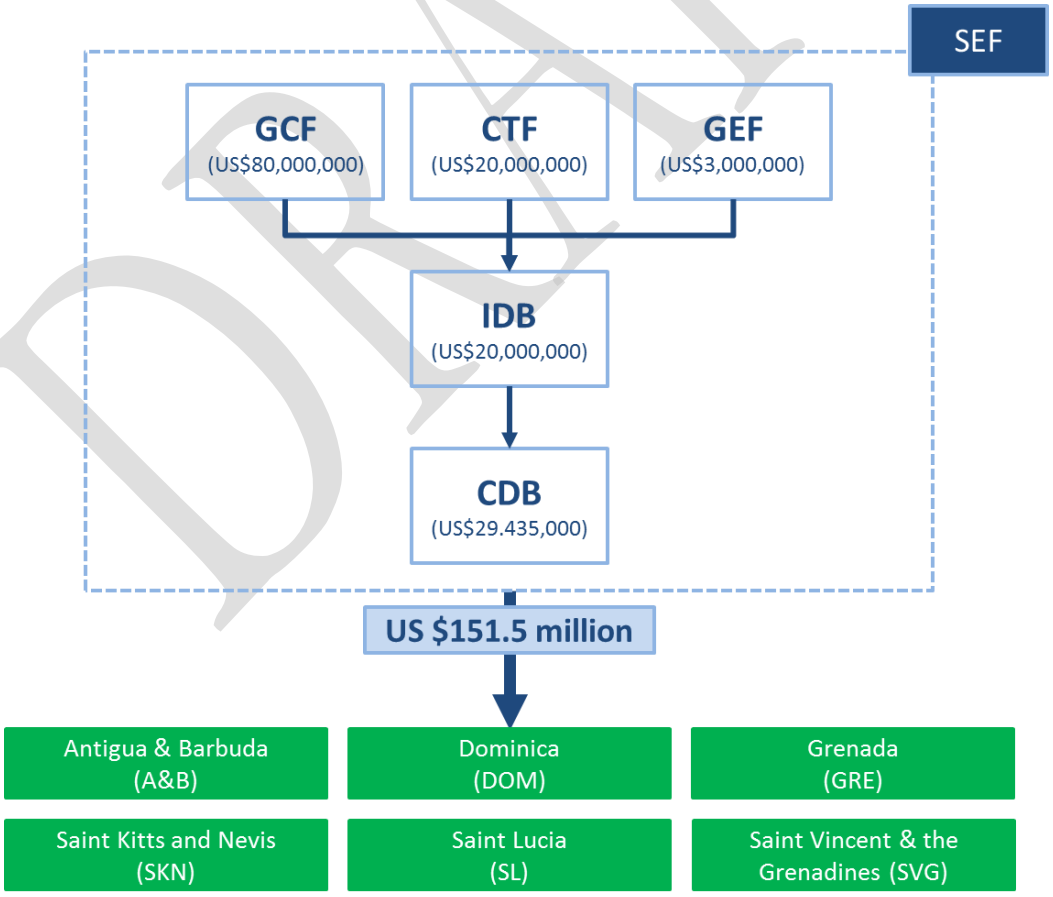
[3] Privately-owned utility companies may receive loans funded by CDB counterpart resources

2.3 Funding for the SEF

The SEF will be financed through a Global Credit Loan (GCL) to CDB, chargeable to the IDB´s ordinary capital (OC) resources. In addition, resources from the Clean Technology Fund (CTF), the Green Climate Fund (GCF), and the Global Environment Facility (GEF) will available for the financing of non-reimbursable investment and technical assistance. IDB resources, together with CTF, GCF, and GEF resources channeled through IDB, will be provided to CDB and complemented with local counterpart resources provided by CDB. CDB will make use of different financial instruments as appropriate for meeting each BMC's (Borrowing Member Country's) needs to develop their SE potential. To that end, CDB will on-lend resources to the Eligible CDB Member Countries to finance commercially and economically viable EE and RE projects and to support the strengthening of legal and regulatory frameworks and capacity required for developing EE and RE potential.

The cost of the program is estimated at US$151,498,698 of which US$20,000,000 will be financed by the IDB´s ordinary capital (OC) resources, US$19,050,000 by the CTF, US$80,000,000 by the GCF, US$3,013,698 by the GEF, and US$29,435,000 by CDB as local counterpart resources. Figure 2.1 shows the donors to the SEF, the amount of money committed, and the ECC that can receive SEF funding.

Figure 2.1: SEF Funding by Donor



The SEF provides three different types of funding—grants, contingent grants (including grants convertible to loans (GrCL) or loans convertible to grants (LoCG)), and loans.

Table 2.2 shows the different types of funding broken down by donor and the financial instruments that will be available for passing SEF resources from each contributor to Sub-borrowers or Final Beneficiaries (as the case may be) in the Eligible CDB Member Countries.

Table 2.2: Sources, Amounts, and Types of SEF Funding to CDB

Donor	Amount (US$)	Type of funding	To be provided by CDB as
Financing by or administered by IDB			
IDB	20,000,000	Loan - IDB's OC resources	Loans
CTF	19,050,000	Contingent Grant resources	Grants convertible to loans (GrCL), or LoCGs (for geothermal exploration)
GCF	80,000,000	Loans, Contingent Grant, and Grant Resources	Grants for regulatory framework and capacity building, or Contingent Grants (GrCL) for exploratory drilling, or Loans
GEF	3,013,698	Grant resources	Grants
Financing by CDB (counterpart resources)			
CDB	29,435,000	CDB's OCR/SFR	Loans or Grants

2.4 Eligible CDB Member Countries

The SEF supports the implementation of RE and EE projects in the ECC. Specifically, the SEF will focus on supporting projects in the six independent ECC that are BMCs of CDB. The Eligible CDB Member Countries for each of the SEF sources of funding are presented in Table 2.3.

Table 2.3: Eligible CDB Member Countries by Source of Funding

Donor	Type of funding	Eligible countries definition	Eligible Countries
Financing by or administered by IDB			
IDB	Loan - IDB OC resources	IDB OC Eligible CDB Member Countries	Antigua & Barbuda, Dominica, Grenada, St. Kitts & Nevis, St. Lucia, and St. Vincent & the Grenadines
CTF	Contingent Grant resources	CTF Eligible CDB Member Countries	Dominica, Grenada, St Kitts & Nevis, St. Lucia, and St. Vincent & the Grenadines
GCF	Loan, Contingent Grant, and Grant resources	GCF Eligible CDB Member Countries with geothermal energy potential	Dominica, Grenada, St. Kitts & Nevis, St. Lucia, and St. Vincent & the Grenadines
GEF	Grants	GEF Eligible CDB Member Countries	Antigua & Barbuda, Grenada, and St. Vincent & the Grenadines
Financing by CDB (counterpart resources)			
CDB	CDB OCR/SFR	Eligible CDB Member Countries	Antigua & Barbuda, Dominica, Grenada, St Kitts & Nevis, St. Lucia, and St. Vincent & the Grenadines

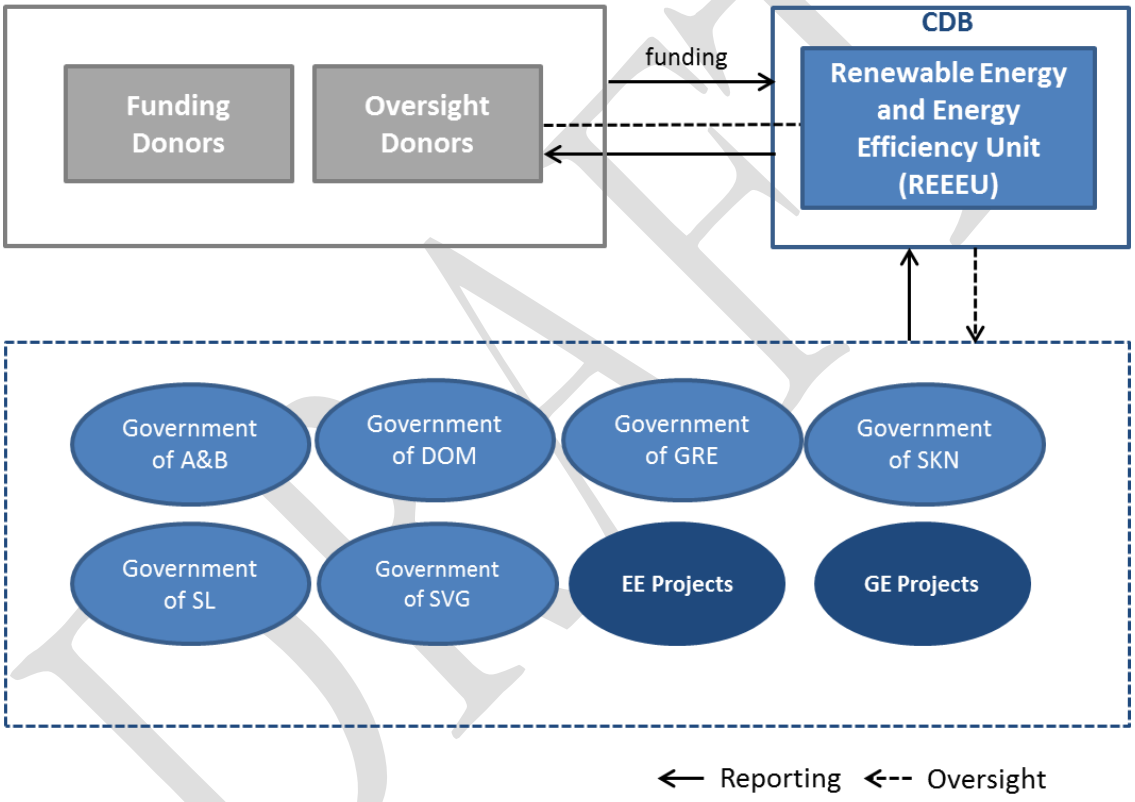
The SEF is structured to provide funding to governments, utilities or SPVs established under PPPs. The specific eligibility criteria for each component of the SEF are described in detail in Section 4; Section 4.1.2 (for EE sub-projects); Section 4.2.2 (for technical assistance to support regulatory framework, institutional strengthening and capacity building); Section 4.6.2 for grant support for GE sub-projects; Section 4.7.2 (for contingent grants or loan convertible to grant to GE sub-projects); and Section 4.8.2 (for Other Base-load RE sub-projects).

3 Institutional Arrangements

The institutional arrangements for the SEF describe the roles and responsibilities of each actor involved in the Program. It also describes the relationship between those actors.

There are distinct actors involved in the implementation of SEF that can be separated by function: lenders, donors, borrowers, beneficiaries, executing agency, and entities with responsibility for oversight. Some of these actors have multiple functions in the execution of the SEF. Figure 3.1 provides an overview of the institutional arrangements for the SEF.

Figure 3.1: Institutional Arrangements of the Sustainable Energy Facility



The actors in the SEF include:

- Oversight donors - donors providing funding and in charge of overseeing SEF implementation by CDB
- Funding donors - donors providing funding and without any ility of overseeing SEF implementation by CDB
- One executing agency of the Program CDB
    - CDB focal point - the Renewable Energy and Energy Efficiency Unit (REEEU); the Program Manager (PM) reports to the Head of the REEEU

- The six governments of the Eligible CDB Member Countries, public utilities and SPVs established under PPP in Eligible CDB Member Countries.

The appointment of a Program Manager (PM) within the REEEU and the assignment of a technical specialist, with the technical, financial, environmental, social and legal support of CDB personnel, will ensure that the resources of the Program are being utilized in accordance with the Program's objectives.

The PM, who will report to the Head of the REEEU, will liaise with the Sub-borrowers and Final Beneficiaries and will oversee funding and Program implementation, detailed in 3.4.

Table 3.1 below illustrates the responsibilities of each of the actors in the SEF.

Table 3.1: Roles of each actor involved in the SEF

Actor	Financing SEF	Implementing the Program	Oversight	Implementing Projects
Oversight Donors	✓		✓	
Funding Donors	✓			
CDB	✓	✓	✓	
REEEU		✓	✓	
Governments, Public Utilities, SPVs	✓			✓

The SEF's most relevant actors are presented in more detail below, along with their respective responsibilities and interactions with other actors.

3.1 The Donors

The donors that finance the SEF include the IDB, CTF, GCF, GEF and CDB.

The CTF, GCF, and GEF will direct their funds through the IDB as shown in Figure 2.1. These donors, together with CDB and the IDB, are providing to the SEF, grants and loan funding to finance RE, EE projects, and regulatory and institutional strengthening. The donors provide funding via mechanisms that fund different components of the SEF. CTF, GCF, and GEF are funding donors which will not participate directly in oversight of the Program but will receive periodic reporting and feedback from the IDB (the oversight donor) according to the agreements established between the IDB and each of these donors.

- **The Inter-American Development Bank (IDB)**—The IDB is the main source of multilateral financing and expertise for sustainable economic, social, and institutional development in Latin America and the Caribbean. The IDB will provide US$20 million in loans to the SEF.
- **The Clean Technology Fund (CTF)**—The CTF is a multi-donor trust fund within the Caribbean Investment Fund (CIF). It provides scaled-up financing

to develop low carbon technologies. The CTF will provide US$19.05 million in contingent grants to the SEF through its Dedicated Private Sector Programs (DPSP) to finance and mitigate exploratory risk for GE projects.

- **Caribbean Development Bank (CDB)**—CDB is the leading multilateral development financial institution solelyfocused on the Caribbean region's economic and social development. CDB will provide US$29,435,000 in loans and grants to the SEF.
- **The Green Climate Fund (GCF)**—GCF is a fund within the framework of the UNFCCC, founded as a mechanism to assist developing countries in adaptation and mitigation practices to counter climate change. The GCF will provide to the SEF, through the IDB, US$80,000,000 for use in loans, contingent grants, and grants.
- **The Global Environment Facility (GEF)**—The GEF is a trust fund that assists developing countries in promoting environmental sustainable development. The GEF will provide US$3,013,698 in grants to the SEF for use in GEF Eligible CDB Member Countries.

3.2 Donor Coordination

Coordination of donors among SEF will be done principally by two main focal donors; CDB and IDB. IDB will coordinate with CTF, GCF, and GEF based on the procedures established in existing frameworks between IDB and such donors.

Coordination with other potential donors which are not part of SEF will be done by CDB, taking advantage of existing relationships with stakeholders in the Caribbean.

3.3 The Executing Agency

In addition to providing funds to the SEF and mobilizing resources from other donors, CDB is the Executing Agency (EA) for the SEF, with Focal Point being the REEEU, and as such CDB will finance eligible Sub-projects under the SEF components. This execution includes:

- Providing strategic direction, coordination and support for the SEF
- Approving this OM (with prior no-objection of the IDB), as a condition prior to the first disbursement by the donors
- Setting up the SEF
- Facilitating receipt of funds disbursed by the IDB and, in turn, disbursing SEF funds to Sub-borrowers and Final Beneficiaries in accordance with outlined financial arrangements (see Section 5)
- Monitoring the SEF and following up on execution and results of Sub-project implementation
- Updating this OM as necessary to facilitate a smooth execution of the SEF; and
- Directing and overseeing all activities required to execute the Program.

Primary responsibility over SEF implementation rests with CDB's REEEU and more specifically with the Program Manager (PM) SEF. As conditions prior to the first disbursement for activities under Component 3, CDB will assign to the REEEU, PM and a technical specialist for the SEF whose functions and responsibilities are defined in the following section.

3.4 The REEEU, the Program Manager and Other Staff

The PM, with the support of the REEEU and other CDB staff providing technical, financial, environmental, social and legal assistance, is responsible for implementing and administering the SEF. Among other responsibilities, the PM, with the support of the REEEU, is responsible for actively engaging eligible Sub-borrowers and Final Beneficiaries to generate demand for the SEF, evaluating the eligibility of applications for SEF funds, monitoring the disbursement of funds, and the implementation of Sub-projects.

Figure 3.2 presents the organizational chart of the REEEU within CDB.

Figure 3.2: Organizational Chart of the REEEU

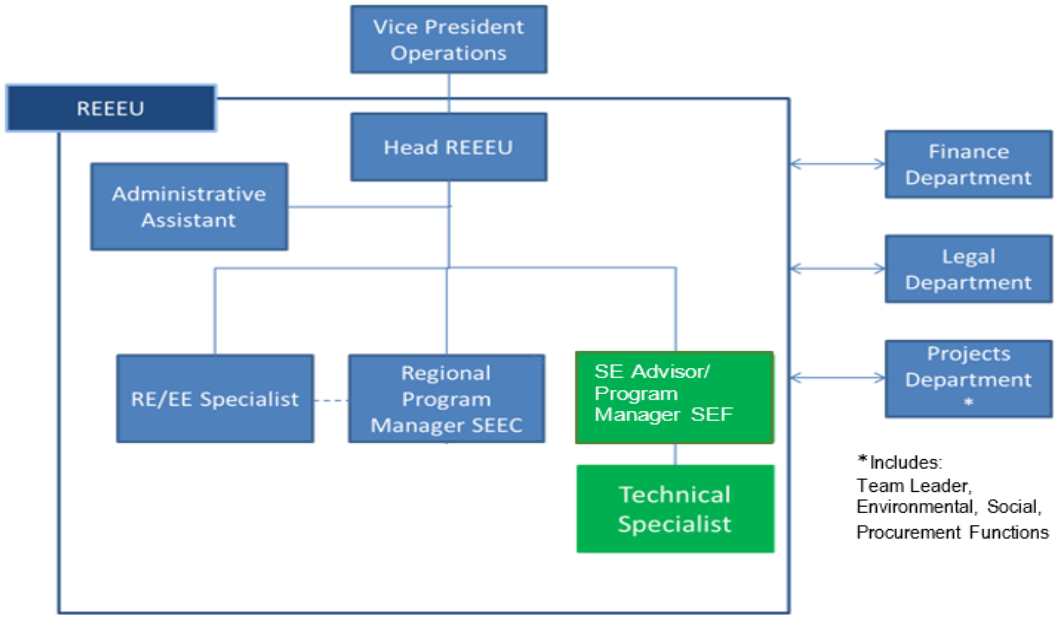


Figure 3.2 shows the organizational chart or the REEEU, which has oversight of managerial, technical, economic, and administrative activities of the SEF.

The PM has overall responsibility for the effective management and administration of the SEF/CDB GeoSmart Initiative[4] (CDB-GSI), including:

[4] CDB-GSI is the Bank's response to the need for risk mitigation to facilitate GE development in the EC. It seeks to mobilize and provide suitable resources to address the various types of risk at each stage of a GE project cycle. These include technical assistant grants, investment grants (straight grants or contingently recoverable grants), concessional loans, and loans at market terms.

- **Liaising with Finance** on (i) account balances, (ii) requests for advance of funds, and (iii) requests for disbursements in accordance with financial arrangements in Section 5
- **Approving or rejecting applications for SEF** support, based on a technical, economic, and financial review of project applications by CDB staff.
- Lead responsibility for the identification and preparation of sub-projects, and supporting the appraisal process as necessary
- **Lead responsibility for the various TA support** contemplated in the framework of SEF/GSI (in areas of capacity strengthening, regulatory reforms, and pre-feasibility assessments and other knowledge management initiatives) for the beneficiary countries.
- **Monitoring and evaluating progress and results** obtained by the SEF and individual projects, gathering information from project developers and ECC governments. This responsibility includes, developing a system for gathering and maintaining data needed to track the Program's individual projects. It also includes identifying and proposing, with other CDB personnel, mitigation measures for risks that may affect individual projects and the Program
- **Reporting on SEF** as required by funding partners. This includes preparing periodic progress reports, supervision reports, and final reports. .
- **Suggesting reallocation of funding** among SEF Components based on project demand and requesting approval from the oversight donor (the IDB).
- **Facilitating external evaluations** and ensuring that agreed recommendations are implemented.
- **Preparing Terms of Reference for consulting services** for CDB, to be approved by the IDB, that are to be funded with SEF resources.
- **Leading efforts for timely updating of the SEF and GSI OMs;**
-

The **Technical Specialist** is responsible for all technical aspects related to the execution of the SEF including:

- **Evaluating the technical and economic viability of GE projects** that is seeking funding from the Program to determine whether the GE projects are technically and economically viable.
- **For geothermal development,** the technical specialist will require the experience and thorough understanding of the different phases in geothermal development. This specialist will have a proven command in geological, geochemical and geophysical aspects of geothermal development as well as knowledge in environmental impacts, financial and legal aspects of

geothermal development. This specialist will support the PM and REEEU in all phases of geothermal transactions performed by CDB.

- Providing knowledge on the local conditions of the ECC that may affect the technical and economic viability of projects.
- Monitoring the technical aspects of the project's progress after it has been approved to receive SEF funding.

CDB will assign **Financial, Procurement, Environment, Social and Legal Specialists** to support preparation, implementation, monitoring, execution and evaluation of the EE and RE Sub-projects funded with the SEF resources. These specialists will support the REEEU and the PM by reviewing the creditworthiness and eligibility of project applications based on CDB's credit regulations and parameters. Once a project is approved, the PM, with support of the above specialists, will be responsible for monitoring project progress, including monitoring that the project's disbursements are progressing according to the financial disbursement schedule included in the loan and/or grant agreement.

Procurement will be responsibility of the Sub-borrowers or Final Beneficiaries (as the case may be), with oversight from the PM and with support from the procurement specialist, as detailed in Section 5.3.

CDB will have a consulting firm on retainer, for 18 months, funded by IDB, which can be extended as needed, to support the REEEU with implementing the SEF, particularly for geothermal projects by appraising project applications, and evaluating and monitoring project execution.

3.5 The Governments of the ECC

The individual governments of the ECC may request financing from CDB to carry out projects, as SEF funding is provided to governments, public utilities (except to privately-owned utility companies which may receive loans funded by CDB counterpart resources), and SPVs established under PPPs in Eligible CDB Member Countries to develop RE projects. Through this mechanism beneficiary country governments may provide equity contributions to EE or RE sub-projects. The ECC governments included in the Program are:

- Government of Antigua and Barbuda
- Government of Dominica
- Government of Grenada
- Government of Saint Kitts and Nevis
- Government of Saint Lucia
- Government of Saint Vincent and the Grenadines.

The ECC governments, individually, have several responsibilities, including:

- Acting as guarantor of the public sector loans (optional)
- Evaluating proposals, developing, and implementing RE and EE projects

- Coordinating with REEEU for receiving disbursements, monitoring and reporting project progress
- Finding private sector partners and implementing PPP projects according to the terms of the loan
- Ensuring that audits and/or feasibility studies for projects are satisfactorily undertaken
- Carrying out procurement processes. This includes preparing and updating procurements plans, preparing TOR and bidding documents, and carrying out the tendering processes for the goods and services needed for the Sub-projects
- Providing equity to projects (optional).

3.6 The Public Private Partnerships for Developing GE Projects

Project developers under PPPs may form SPVs specifically for developing geothermal projects that will receive SEF funding under Component 3 and according to Section 4.7.2. These entities would borrow directly from CDB to carry out GE projects. The responsibilities of each SPV under a PPP that is a recipient of SEF funding will be established in the Sub-loan agreement between CDB and the respective SPV. Notwithstanding the latter, the responsibilities of the PPP entities during Sub-loan preparation and execution include, but are not limited to the following:

- Ensuring surface studies, feasibility studies, and ESIAs, for GE projects are satisfactorily undertaken
- Preparing project proposals, applying for and obtaining funding from the SEF, through CDB
- Coordinating with REEEU for receiving disbursements and reporting project progress
- Carrying out procurement processes. This includes preparing and updating procurement plans, preparing TOR and bidding documents, and carrying out the tendering processes for the goods and services needed for the GE projects
- Developing and implementing GE projects
- Providing equity to projects and/or raising additional funding
- Meeting international good practice environmental and social requirements for the energy industry
- Compliance with applicable national environmental and social legislative requirements

4 Operating Arrangements

This section describes the operating arrangements by components and by available financial instruments (loans, grants, GrCL, LoCG).

Table 4.1: Available Financial Instruments

Activities		Grant	GEF Grant	GrCL/ LoCG	Loan
Available Funding		**IDB, CDB, GEF, GCF**	**GEF**	**CTF, GCF**	**IDB, CDB, GCF**
Component 1: Energy Efficiency		✓ Reference??	✓		✓ (4.1)
Component 2: Regulatory Framework, Institutional Strengthening and Capacity Building		✓ (4.2)	✓		
Component 3: Renewable Energy					
Component 3: Sub-component 1: Variable RE			✓		✓ (4.6)
Component 3: Sub-component 2A: Geothermal Energy		✓ (4.3)		✓ (4.4)	✓ (4.4)
• ***2A-1*** •	• ***Surface study (3G, ESIA, etc.)***	✓	✓		
	• ***Slimhole drilling/First exploratory drillings & resource evaluation study***	✓		✓	✓
• ***2A-2*** •	• ***Test drillings & feasibility study***			✓	✓
	• ***Investment (additional drillings, plant, T&D, other relevant infrastructures)***				✓
Component 3: Sub-component 2B: Other Base-load RE			✓		✓ Reference?

4.1 Component 1: Energy Efficiency (Loans and Grants)

Component 1 funds the implementation of EE projects through loans and grants.

4.1.1 Overview

Product

Component 1 provides loans and grants to finance the implementation of EE projects.

Purpose

The purpose of this component is to increase the uptake of economically and commercially viable EE projects by governments and utilities in the ECC. The way this purpose is achieved is by providing funding at concessional terms for implementing EE projects. These favorable terms increase the attractiveness and feasibility of these projects from the perspective of governments in the ECC.

4.1.2 Eligibility criteria

Eligible Sub-borrowers and Final Beneficiaries

The eligible Sub-borrowers and Final Beneficiaries for the support under Component 1 are governments and public utilities in Eligible CDB Member Countries.

Eligible projects

The projects eligible for support under Component 1 include:

- **Retrofitting street lights.** Replacement of streetlights with energy efficient ones to reduce electricity consumption and expenditure.
- **Implementation of energy efficiency and energy conservation measures in public buildings** to reduce the energy intensity.

Eligible technologies

Eligible technologies are those that are technically viable (that is EE technologies that are proven) and economically viable (that is, EE technologies that produce electricity savings large enough to cover their all-in costs). Experimental or non-proven technologies and technologies that do not cover their all-in cost are not eligible for support. The technical and economic viability of each technology will need to be evaluated for each project seeking funding from the SEF.

Determining eligibility for SEF support

The REEEU is responsible for conducting the technical and economic review of technologies to determine their eligibility for support. Some of the technologies and criteria used for reviewing their eligibility are presented below.

Energy efficient technologies for retrofitting street lights

Examples of technologies to be considered for funding include light-emitting diode technology, magnetic induction street lights, and other efficient lighting for replacing standard technologies. Some countries issue certifications for energy efficient technologies. The REEEU would need to research for each Eligible CDB Member Country whether there are similar certifications covering EE street lighting technologies. The entities to research include: Antigua and Barbuda Bureau of

Standards, Dominica Bureau of Standards, Grenada Bureau of Standards, St. Kitts and Nevis Bureau of Standards, St. Lucia Bureau of Standards, St. Vincent and the Grenadines. If some of the countries in the Program do not have a system to certify EE street lighting technologies, the REEEU may base its assessment on:

- The Energy Star certification scheme,[5] or in the absence of that,
- EE Light approved for sale in the European Union based on the CE certification system[6].

Energy efficient and energy conservation technologies in public buildings

Examples of technologies to be considered for funding and the criteria to determine their technical viability are as follows:

- **Efficient lighting technologies—**include T8 fluorescent lamps, occupancy sensors, T5 high output lamps, and other efficient lights such as Light Emitting Diode (LED) lights. These technologies should comply with locally issued certifications if available. In the absence of locally issued certifications, the REEEU may base its assessment on any of the following:
  - The Energy Star certification scheme, or in the absence of that,
  - EE Lighting approved for sale in the European Union based on the CE certification system
- **Efficient air-conditioners ventilation systems, and high efficiency air-conditioning (AC) Systems** – in various configurations: e.g. unitary, mini/multi-splits, central AC systems including chillers, ventilation/air distribution components
- **Energy efficient appliances—**such as refrigerators, coolers, fans, etc. assumed to be technically and economically viable provided they comply with ECC certifications. In the absence of locally issued certifications, the following certification would be used:
  - The Energy Star certification scheme
  - The European Union Energy Star certification scheme for office appliances[7]
  - European Energy Label system[8]
- **Power monitors for energy conservation—**always viable and eligible for funding

[5] See Energy Star Program, www.energystar.gov

[6] The CE mark is a self-certification system through which manufacturers certify that their equipment meets all standards prescribed by EU laws and regulations.

[7] EU Energy Star, www.eu-energystar.org/en/database

[8] EU Energy Labeling, http://ec.europa.eu/energy/efficiency/labelling/energy_labelling_en.htm

- **Energy management systems –** computerized control system for managing power consumption in buildings (i.e. optimizing temperature, light, air flow, etc.).
- **Other energy saving measures—**such as replacing leaky windows and doors, painting walls and roofs with heat reflecting color, installing heat-reducing window glaze, installing window awnings, and/or installing weather insulating material and coatings reduce heat infiltration and air conditioning (AC) use. Other energy saving measures will be based on a case-by-case assessment.
- **Solar water heaters—**would replace electric water heaters. Solar water heaters use the heat of the sun to warm water in a roof-mounted system. Solar water heaters are subject to a case-by-case assessment.

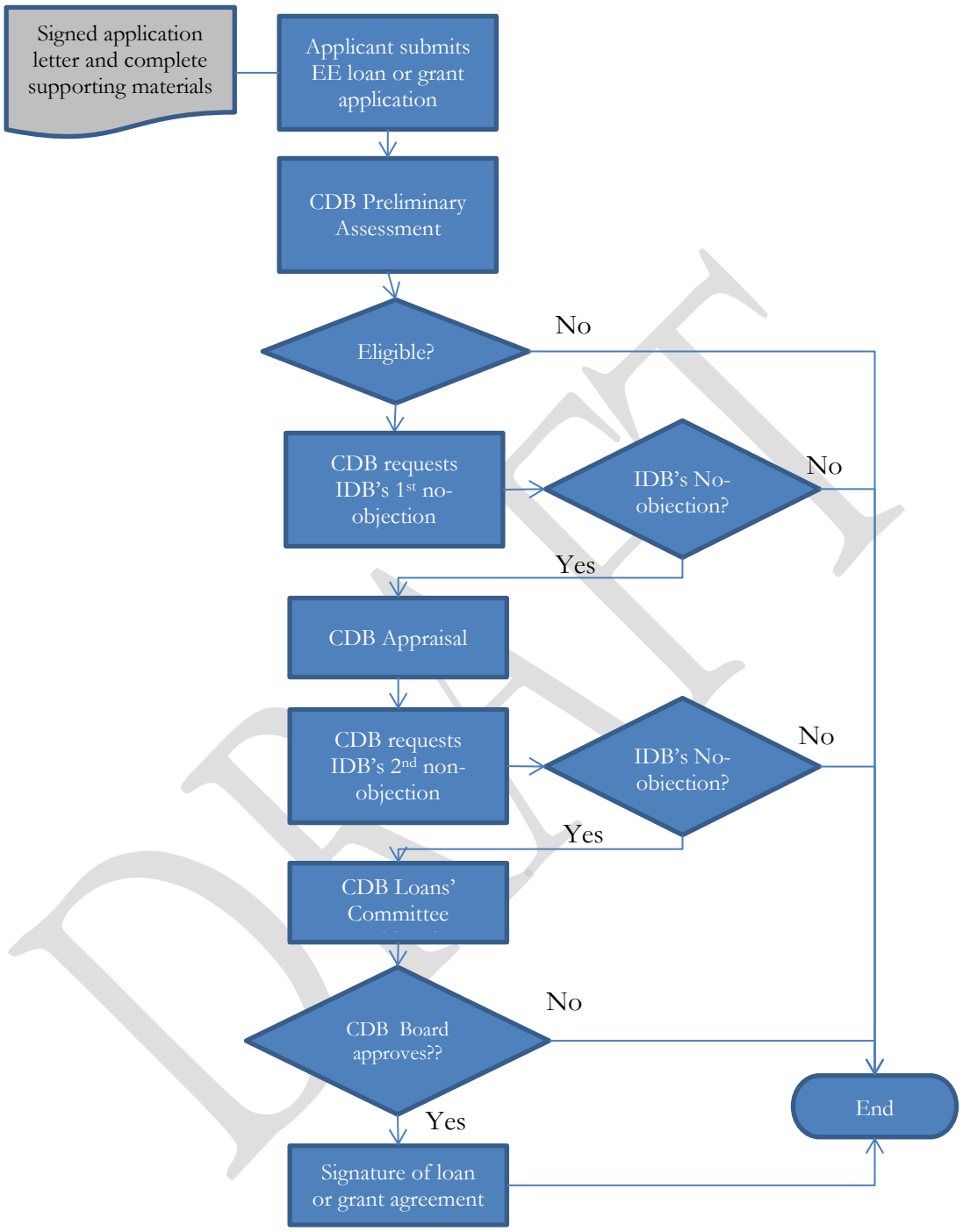
4.1.3 Terms and conditions

Indicative terms and conditions for Sub-loans awarded under Component 1 are shown in 1.1.1Appendix E.

4.1.4 Processing of loan or grant support under Component 1

Figure 4.1 shows the steps for Eligible Sub-borrowers and Final Beneficiaries to apply for and obtain funding under Component 1 of the Program.

Figure 4.1: Loan and Grant Approval Cycle for Energy Efficiency Projects



The process for obtaining funding under Component 1 of the Program as shown above is further described as follows:

- **Step 1—Signed Application Letter and supporting materials:** The applicant submits a signed application letter which presents the application,

and states the applicant's interest in obtaining a loan or grant for implementing an EE project. The application must include the following supporting materials:

- **Project Document** presents the EE project for which the applicant intends to obtain funding, describing expected costs, expected performance, and benefits of the project. It should be sufficiently detailed to allow for a full technical, economic, and financial assessment.
- **EE Audit or Study** assesses where and how much energy is lost by public buildings. EE Audits are only necessary for EE projects to retrofit public buildings.
- **Copies of electricity and gas bills** for the last 12 months. For projects that retrofit streetlights, the applicant would submit utility sales reports that present electricity consumption for the public lighting sector.
- **Results Matrix** that presents the project's impact, outcome, and output indicators with baseline data and targets.

- **Step 2—CDB carries out Preliminary Assessment and Due Diligence:** CDB will conduct a brief preliminary assessment. The purpose of the preliminary assessment is to eliminate ineligible applications and identify eligible applications that are missing supporting material or have areas that need further development before going to the technical, financial, and economic appraisal. The preliminary assessment may have one of three outcomes:
  - CDB may deem an application ineligible if the project does not meet the eligibility criteria included in Section 4.1.2
  - CDB may deem an application eligible subject to the provision of additional supporting material or areas in the application that need to be developed further. For example, the EE audit may not comply with CDB requirements. If this is the case, the applicant is responsible for funding a new EE Audit. If the project is approved, the cost of the EE audit is considered part of the applicant's counterpart contribution to the project costs. CDB will also advise the applicant on what information is required to complete the application
  - CDB may deem an application eligible and ready for technical and economic appraisal.
- **Step 3—1st IDB No-objection (except when soley using CDB counterpart administered):** The IDB reviews the Concept Note when deemed ready for review to issue its no-objection on the eligibility of the project so it can move forward to being fully appraised by CDB. This step may have one of two outcomes:
  - IDB issues its no-objection to CDB's decision to continue with the appraisal of the project

- IDB does not issue a no-objection on the project's eligibility for SEF funding, and the project is rejected, IDB justifying the decision in writing.

- CDB informs the applicant of the decision to approve or reject a project, justifying the decision in writing. An applicant may not appeal against this decision, which ends the process.
- **Step 4—Technical, Economic, and Financial Appraisal:** CDB reviews applications to assess their technical, economic, and financial viability, based on criteria for eligible projects and eligible technologies described in Section 4.1.2 and CDB's credit review practices and parameters. CDB's technical, economic, and financial appraisal may have one of two outcomes:
  - CDB approves a project because it is deemed technically and economically viable
  - CDB rejects the project because it is deemed technically and/or economically not viable.
- **Step 5—2nd IDB No-objection (except when soley using CDB counterpart resources) :** The IDB reviews the project appraisal by CDB to issue its no-objection on the approval of the project. This step may have one of two outcomes:
  - IDB issues its no-objection to the decision to bring the project to CDB's Board of Directors for consideration and possible approval.
  - IDB does not issue a no-objection for the project's consideration and approval, and the project is rejected, justifying the decision in writing.

  CDB informs the applicant of the decision to approve or reject a project, justifying the decision in writing. An applicant may not appeal against this decision, which ends the process
- **Step 6—Approval of CDB Board of Directors (BOD)**
- **Step 7—Signature of Loan/Grant Agreement:** CDB and the government of, or public utility in the Eligible CDB Member Country, sign the loan/grant agreement
- **Step 8—Disbursement of loan/grant:** CDB disburses the loan/grant to the applicant in the manner negotiated with the applicant.
- **Step 9—Implementation:** The EE project is implemented, and the successful applicant repays the loan based on the agreed terms and conditions. Implementation is subject to monitoring and evaluation as described in Section 6.

4.2 Component 2: Regulatory Framework, Institutional Strengthening, and Capacity Building

Component 2 of the Program provides two types of support for institutional strengthening and reforming the legal and regulatory framework: loans and grants. This section focuses on the grant portion of Component 2 which may be used to provide

support to CDB and the Eligible CDB Member Countries to fund technical assistance for institutional strengthening, and legal, regulatory, and policy reforms.

4.2.1 Overview

Product

Resources from Component 2 will be used for the financing of non-reimbursable technical assistance to CDB and to Eligible CDB Member Countries.

Purpose

The purpose of Component 2 is to provide technical assistance to the eligible BMCs and to CDB in developing and strengthening skills, knowledge, and capacities necessary to successfully implement the projects that may be funded by the SEF. Component 2 will also provide support to eligible BMCs in making reforms to legal, policy, and regulatory frameworks that are necessary to implement the projects that may be funded by the SEF.

4.2.2 Eligibility criteria

Eligible beneficiaries

There are two types of beneficiaries of Component 2: CDB and the governments of Eligible CDB Member Countries. Component 2 does not provide grants directly to the private sector or to PPPs.

Eligible activities

Component 2 may fund the following activities:

- For the beneficiary BMCs, technical assistance for:
  - Remuneration for short-term consultants that will support the implementation of RE and EE projects
  - Studies to establish strategies and plans for the energy sector
  - Training and study tours to build skills among local authorities on RE and EE technologies and projects and designing and implementing PPPs
  - Training and study tours to build skills among local independent regulators on legal, policy and regulatory framework design for RE and EE deployment
  - Transaction advisory services for structuring and negotiating EE and RE projects with private sponsors
  - Legal, regulatory, and policy reform of the energy sector
- For CDB, technical assistance for:
  - Consulting services to provide specific skills and advisory services when required for sub-project preparation
  - Drafting of legal documents (i.e. loan contracts for Sub-loans and Sub-grants)

- Training to further develop staff capacity to evaluate and execute Sub-loans and Sub-grants
- Remuneration for consulting firms and individual consultants that will support the execution of the SEF

Processing of grant support under Component 2

IDB will approve the grants provided to CDB and beneficiary BMCs under Component 2.

Funding to CDB

The REEEU at CDB prepares a Grant Application that details the scope, specific activities, budget, implementation plan and timeline, and Terms of Reference for consultants. The REEEU submits the Grant Application to IDB for no-objection. The IDB reviews the request and provides no-objection, or objection.

IDB in consultation with CDB will define any specific operating arrangements for the grant funding for CDB based on the needs, institutional arrangements, and implementation plan.

Funding to the governments of Eligible CDB Member Countries

Grants are provided to beneficiary BMCs on a first-come, first-serve basis. The steps for applying for and obtaining funding under Component 2 of the Program are:

- The BMC prepares a Grant Application that includes the specific activities, budget, implementation plan and timeline, and Terms of Reference for consultants (if applicable)
- The REEEU at CDB reviews the Grant Application. The CDB review may have one of three outcomes:
  - The Grant Application is approved and it is sent to the IDB for no-objection
  - CDB determines that the Grant Application needs further work and/or information and sends it back to the applicant BMC. The applicant BMC revises it and resubmits it to CDB for another review
  - The Grant Application is rejected and the process ends there
- (except when soley using CDB counterpart resources The IDB reviews the approved application and issues its decision on no-objection
- Approval of CDB BOD
- The Grant Agreement is signed between CDB and the BMC. CDB determines the specific operating arrangements based on the needs, institutional arrangements, and implementation plan
- The grant funds are disbursed and the beneficiary makes use of them.

4.3 Component 3: Renewable Energy (RE)

Component 3 provides support for renewable energy in two subcomponents: variable and base load RE.

- **Subcomponent 1: Variable RE**
- **Subcomponent 2: Base-load RE:**
  - **Subcomponent 2A:** GE projects
    - **Subcomponent 2A-I**: provides Grant (non-reimbursable) support for studies and slim-hole drilling.
    - **Subcomponent 2A-II**: provides funding support using special instruments of grant convertible to loans, loan convertible to grants, and loans, for exploratory drilling and other stages of development.
  - **Subcomponent 2B:** Other Base-load RE.

The following sections present subcomponents 1 and 2 pertaining to Component 3 of SEF.

4.4 Component 3: Subcomponent 1 - Variable RE (grants and/or loans)

Component 3: Subcomponent 1 funds the preparation and implementation of variable RE projects.

4.4.1 Overview

Product

Sub-Component 1 provides a grant and/or loans to fund the implementation of Variable RE projects. Projects eligible for a loan under this sub-component may or may not have received a grant for carrying out pre-investment activities. Projects that have already completed the pre-investment stage may apply directly for loans to plant installation activities.

Purpose

The purpose of Sub-component 1 is to increase the uptake of viable Variable RE projects. This purpose is achieved by providing funding at concessional terms for implementing RE projects. This funding reduces the risk and cost, and increases the attractiveness and feasibility of these projects from the perspective of project developers and BMCs. This in turn enables the deployment of private and public sector funds for RE projects.

4.4.2 Eligibility criteria

Eligible Sub-borrowers and Final Beneficiaries

Loans and grants may be made to finance RE projects in the Eligible CDB Member Countries, which are done by:

- Governments of Eligible CDB Member Countries; and
- Public utilities in Eligible CDB Member Countries.

Eligible activities

The loans and grants of Sub-Component 1 will fund the preparation and specific stages of RE projects, as follows:

- Carrying out feasibility studies
- Preparing Environmental and Social Impact Assessments
- Constructing power plants, substations, transmission lines and/or access roads.

4.4.3 Terms and conditions

Indicative terms and conditions for Sub-loans awarded under Sub-Component 1 are shown in 1.1.1Appendix E.

4.4.4 Processing of loan and grant support under subcomponent 1

The relevant elements (steps) of procedure shown in 4.7.4 will be applied.

4.5 Component 3: Subcomponent 2A: GE Projects

4.5.1 Overview

All funding under this Subcomponent (i.e. 2A-1, and 2A-2) falls under CDB GeoSmart Initiative (CDB-GSI). These may be provided by CDB directly, or administered by CDB on behalf of Partners providing parallel financing, for any stage of the GE project cycle.

CDB-GSI is the Bank's response to the need for risk mitigation to facilitate GE development in the EC. It seeks to mobilize and provide suitable resources to address the various types of risk at each stage of a GE project cycle. These include technical assistant grants, investment grants (straight grants or contingently recoverable grants), concessional loans, and loans at market terms. All CDB's administered resources/interventions to support GE development are therefore deemed to fall under the CDB-GSI. These may be provided directly from CDB's own resources, through lines of credit from other institutions, or as parallel financing (which are administered by CDB) from other development partners

4.6 Component 3: Subcomponent 2A-1: GE Projects Grants (non-convertible)

4.6.1 Overview

Product

Subcomponent 2A-1 will provide non-reimbursable funds to pay for pre-investment activities for GE projects, including pre-feasibility and feasibility studies, environmental and social impact studies, and early exploration activities (e.g. drilling slim holes).

Purpose

The purpose of Sub-component 2A-1 is to mitigate the exploratory risk during earlier stages of GE development, when high investments are needed to prove the geothermal resource, mobilizing private sector capital and expertise required for developing these projects. This purpose is achieved by providing grants for preparing and implementing GE projects. This funding reduces the risk and cost, and increases the attractiveness

and feasibility of these projects from the perspective of project developers and BMCs. This in turn enables the deployment of private and public sector funds for GE projects.

4.6.2 Eligibility criteria

Eligible Beneficiaries

Grants may be made to governments that have a participation in a GE project in the Eligible CDB Member Countries with GE potential.

Eligible Activities

The grant resources provided for Sub-component 2A-1 will fund the preparation and specific stages of GE projects, as follows:

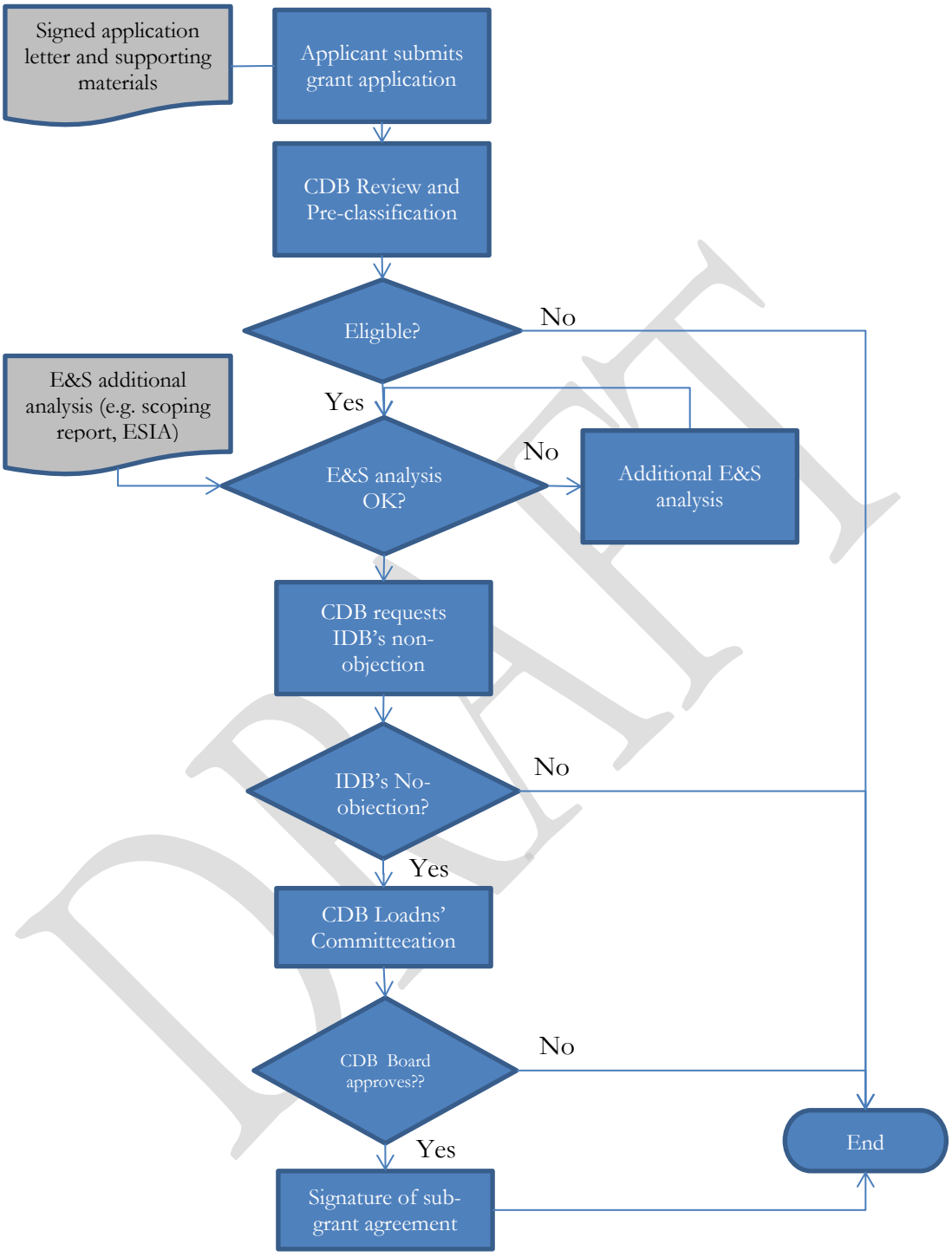
- Literature and on-field analyses and surface studies (3Gs)
- ESIAs for exploration
- First exploratory drillings (usually slim hole)
- Financial, technical, and legal pre-feasibility studies

Appendix C shows the standard stages of a geothermal project.

4.6.3 Processing of grant support under Subcomponent 2A-1

shows the steps for applying for and obtaining grant funding, specifically for early exploration activities (drilling slim holes). For other activities, such as studies (3Gs, ESIAs, etc.), the same processing for Component 2 (grant) shall be applied.

Figure 4.2:Grant Approval Cycle for Early Exploration Activities of GE Projects



Grants for early exploration activities (drilling slim holes) are provided to eligible projects on a first-come, first served basis. An important part of the approval process for funding under Sub-component 2A-1 is classifying the projects based on their inherent environmental and social risks. This classification is used to make decisions

regarding the due diligence process to follow and risk mitigation plans that should be undertaken and clauses that should be included in the terms and conditions of the grant agreements.

The IDB and CDB have agreed that for Category A sub-projects and all geothermal high risk sub-projects (Category A and B+), IDB will undertake due diligence alongside CDB's team throughout the project preparation, appraisal, and monitoring phases. See Appendix B for a description of the categories and parameters used for classifying projects. Among other aspects, these categories and parameters are established based on the risks inherent in each stage of geothermal development. Appendix C presents the risk profile for geothermal projects at various stages of development.

The objective of this hand-in-hand due diligence is to help build CDB's capacity in assessing the environmental and social impact of high risk GE projects, and ensure that project impacts are adequately mitigated according to the "IFC Environmental and Social Performance Standards and World Bank's Environmental, Health, and Safety Guidelines."

As shown in the figure above, the process for completing a grant approval cycle for exploratory drillings involves the following steps:

- **Step 1—Submit the Grant Application**.
  - The applicant submits the **signed Application letter** which presents the application, and states the applicant's interest in obtaining a grant for implementing an exploratory drilling project. The Application must include the following supporting document.
  - **Project document** which presents the GE early exploratory activities (pre-investment activities) for which the applicant intends to obtain funding, as well as overall description of the project. The project document should describe the expected costs and benefits of the project, the expected timelines for executing the project, other sources of funding that will be used, and E&S analysis to the satisfaction of CDB and IDB.
- **Step 2—Review Grant Application and Propose Pre-classification**. CDB reviews the grant application with emphasis on the E&S analysis and determines the pre-classification based on the parameters presented in Appendix B. This review may have one of three outcomes:
  - CDB may deem an application ineligible if the project does not meet the eligibility criteria included in Section 4.6.2. If this is the case the approval process ends here.
  - CDB may deem an application eligible but identify areas in the project document that need to be developed further including E&S analysis. If this is the case, CDB and IDB will provide comments and support for improving the project document including additional E&S analysis. Where the Grant Application did not include an E&S analysis or the one presented did not comply with CDB requirements, the applicant, with support from CDB, will prepare TOR for the E&S analysis for review by IDB. Depending on the particular risks identified at this stage in the

investment activity, the level of E&S analysis may vary, ranging from a more limited Scoping Analysis to a more complete Environmental Impact Assessment.

  - CDB may deem an application eligible for Grant Approval.

- **Step 3—IDB No-objection**. CDB submits the draft project document, including E&S analysis and its changes, to the IDB for no-objection and the pre-classification of E&S category. The IDB should review the grant application and respond to CDB within a mutually agreed time receiving the request for no–objection.[9] This step has one of two possible outcomes.
  - The IDB declares the project ineligible and the grant approval process ends.
  - The IDB issues its no-objection for the grant application to be approved.
- **Step 4 – CDB Board approval.**
- **Step 5—Signature of Grant Agreement**. CDB and the applicant sign a grant agreement that specifies the terms and conditions of the grant.
- **Step 6—Disburse Funds**. CDB disburses funds to the beneficiary according to the terms and conditions in the grant agreement.
- **Step 7—Carry out Pre-investment Activities**. As the pre-investment activities are carried out, CDB must oversee the execution of the work and identify foreseeable risks. Throughout execution, CDB must also keep the IDB informed of the progress, informing IDB of the selected consultant and of any foreseeable risk in completing the work. CDB must also review and approve the products as they are completed. If necessary, CDB (and if necessary, the IDB) will participate in a due diligence mission to assess environmental and social issues where risks are considered significant.

Applicants are free to withdraw their application at any step of the process.

4.7 Component 3: Subcomponent 2A-2 - Convertible Grants (GrCL/LoCGs) and Loans

4.7.1 Overview

Product

In addition to grant support provided in Sub-Component 2A-1, for pre-investment activities as described in section 4.3.2, Sub-Component 2A-2 will provide other financial instruments to mitigate exploratory risk and fund GE development activities. These financial instruments include grants convertible to loans (GrCL), loans convertible to grants (LoCG), and loans. These financial instruments may be developed considering the necessity and nature of the GE projects and funding availability in each case.

- **Loan** is a loan at CDB's OCR terms rate.

[9] Should the operation, even at an early stage, be complex, additional time may be required for IDB's review of documents provided.

- **Grant Convertible to Loan (GrCL)** is provided as a grant to the beneficiary and will be converted to a concessional loan in case of the drilling subproject having a successful result after the evaluation process described in Section 4.7.4.
- **Loan Convertible to Grant (LoCG)** is provided as a loan to the beneficiary and will be converted to a grant in case of having unsuccessful result in the drilling sub-project after the evaluation process described in Section 4.7.4.

Purpose

The purpose of this product is to mitigate the exploratory risk during earlier stages of GE development, when high investments are needed to prove the geothermal resource, and unlock investments in GE mobilizing private sector capital and expertise required for developing these projects. The purpose is achieved by providing risk mitigation instruments and funding at concessional terms for implementing GE projects. This funding reduces the risk and cost, and increases the attractiveness and feasibility of these projects from the perspective of project developers and BMCs. This in turn enables the deployment of private and public sector funds for GE projects.

4.7.2 Eligibility criteria

Eligible Beneficiaries

Loans, GrCL and LoCG may be used to finance GE projects in the beneficiary BMCs[10], which are implemented either by the public sector alone or through special purpose vehicles (SPV) under PPP arrangements, with both public and private participation. Component 3 does not provide support directly to the private sector, except to privately-owned utility companies which may receive loans funded by CDB counterpart resources (see indicative terms and conditions in Appendix E).

- For the purpose of defining eligibility under the SEF, SPVs should have the following attributes: The SPV has to be legally established in any of the Eligible CDB member countries with equity participation from the private sector and the government. Total private sector participation in the SPV by one or more entities whose nationality is not from an IDB or CDB member country should not exceed 50 percent.
- The PPP has to be structured through an agreement with the government, or local regulatory authorities to which the private developer is a party (e.g. a concession agreement).
- The SPV needs to have obtained or obtain, when applicable, all material governmental permits, approvals, licenses, consents or authorizations, required to develop the activities for each project they are requesting funding, to explore, and exploit geothermal resources as well as to develop a geothermal production plant and sell power to a local utility.

For a project to be awarded GrCL, LoCG or loans under Component 3, the beneficiary should demonstrate that they have access to the technical expertise, financial backing,

[10] Antigua and Barbuda, has no evidence of having GE potential, however .

and the ability to acquire materials required for the project and that the project can be executed in a cost-effective manner.

1.1.1Appendix F presents guiding principles for establishing PPPs and designing the PPA by which the GE SPV will sell power to the local utility(ies).

Competitive process of procurement

The competitive nature of the procurement process will be in accordance with CDB's procurement rules as detailed in Section 5.3.

Project Information

Proposals of the project must have sufficient technical, financial, legal and environmental information. The various information sets required by each project stage is described in 1.1.1Appendix A.

Pass-through of concessionality

The concessionality of loans to SPVs established under a PPP, must be fully passed through to the end consumer by being reflected in the PPA price between the beneficiary/GE SPV and the off-taker/ utility company. This must be done in a transparent manner, by ensuring that pass-through of concessionality is reflected in the project financing model developed by the SPV, and verified by CDB.

Eligible activities

The GrCL/LoCG, guarantees and loans of Component 3 will fund the preparation and specific stages of GE projects, as follows:

- First exploratory drillings (slim hole or commercial size) and/or pre-feasibility study
- Test drillings (commercial size) and/or feasibility studies including Environmental Impact Assessments
- Drilling production wells and reinjection wells
- Constructing power plants, substations, transmission lines and/or access roads.

Appendix C shows the standard stages and activities of a geothermal project.

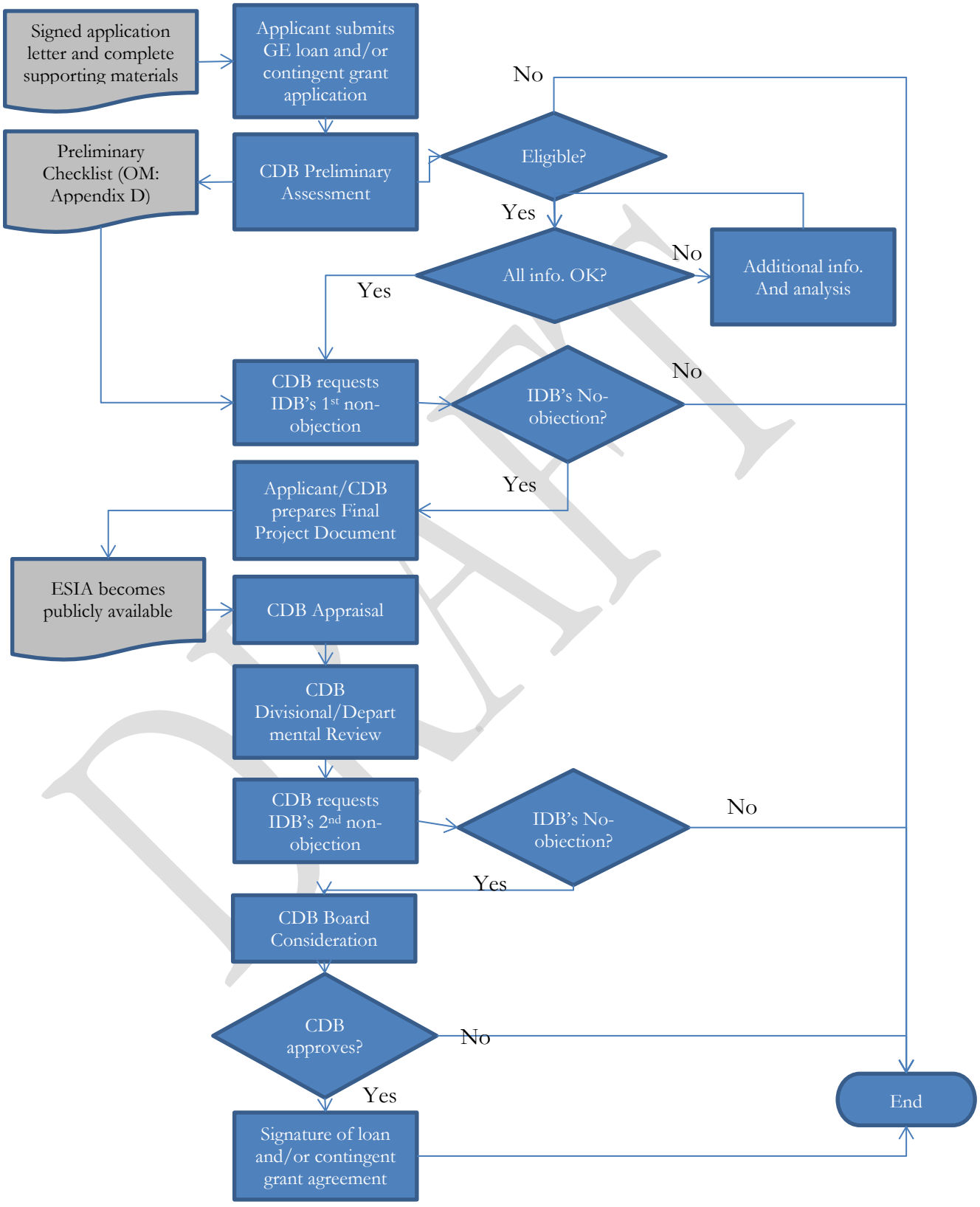
4.7.3 Terms and conditions

Indicative terms and conditions for GrCL/LoCG and Sub-loans awarded under Component 3 are shown in 1.1.1Appendix E.

4.7.4 Processing of GrCL/LoCG/loan support under subcomponent 2A-2

Error! Reference source not found. shows the various steps for applying for and o btaining a GrCL/LoCG or concessional loan under Component 3. The IDB will coordinate closely with personnel from the IDB Group's private sector lending arm during the due-diligence process especially in reviewing of the financial viability of the projects.

Figure 4.3: Loan, GrCL, and LoCG Approval Cycle for Component 3



Loans and contingent grants are provided to eligible projects on a first-come, first served basis.

An important part of the approval process for funding from Component 3 is classifying the projects based on their inherent environmental and social risks. This classification is used to make decisions regarding the due diligence process to follow and risk mitigation plans that should be undertaken and clauses that should be included in the terms and conditions of the loan agreements.

The IDB and CDB have agreed that for Category A sub-projects and all geothermal high risk sub-projects (Category A and B+), IDB will undertake due diligence alongside CDB's team throughout the project preparation, appraisal, and monitoring phases. See Appendix B for a description of the categories and parameters used in classifying projects. Among other aspects, these categories and parameters are established based on the risks inherent in each stage of geothermal development. Appendix C presents the risk profile for geothermal projects at various stages of development.

The objective of this hand-in-hand due diligence is to help build CDB's capacity in assessing the environmental and social impact of high risk projects, and ensure that project impacts are adequately mitigated according to the "IFC Environmental and Social Performance Standards" and World Bank's Environmental, Health, and Safety Guidelines.

Each step in the process for approving funding is described below:

- **Step 1 —Submit Signed Application Letter with supporting materials**. An applicant submits a signed application letter to CDB presenting the loan or contingent grant application, stating the applicant's interest in obtaining financing for the implementation of a GE project. The application must include the following supporting materials:
  - **Draft Project Document** which presents the GE project that the applicant intends to obtain funding for, describing expected costs and benefits of the project. The project document should be sufficiently detailed to allow for a full technical, economic, and financial assessment with no need of further studies, including financial statements, ownership structure, and technical information. Appendix A presents the supporting materials which the project developer must include in its application for GE projects.
  - **Environmental and Social Impact Assessment ('ESIA')**, if available.
  - **Results Matrix** that presents the project's impact, outcome, and output indicators with baseline data and targets.
- **Step 2— Carry Out Preliminary Assessment and Due Diligence**. CDB carries out a preliminary assessment based on the information presented in the Application Letter and supporting materials.
  - **Fill in Preliminary Checklist**. CDB completes the Preliminary Checklist for GE Projects (see Appendix D) based on the information presented in the Draft Project Document. The purpose of completing the checklist is to carry out a preliminary review of project applications and filter out those

projects that are not eligible for funding. During this step, CDB carries out an E&S pre-classification of the project by assessing its potential environmental and social impact. The pre-classification presented in Appendix B is based on the environmental and social scoping parameters established in the ESMR shown at Appendix H. A preliminary strategy for verifying this pre-classification during the project due diligence is also presented in Appendix B. CDB will provide an indicative term sheet to the applicant.

- **Review ESIA**. Where the ESIA is available, it will be submitted to CDB. CDB will undertake the first review, identification of any gaps, and propose a plan for additional analysis to address these gaps. The review will identify gaps with regard to the IFC Environmental and Social Performance Standards and World Bank's Environmental, Health, and Safety Guidelines. In projects considered high risk, this will be done with the support of an external consultant. CDB will submit to IDB for review and comment, the ESIA, the gap analysis and the proposed cost of action. CDB must ensure that the ESIA is publicly disclosed and available 30 days prior to CDB's Board of Directors' Meeting.

CDB's assessment may have one of three outcomes:

- CDB may deem a project ineligible and reject the project application,
- CDB may deem a project application incomplete, subject to further review and information to be provided.
- CDB may deem a project eligible.

- **Step 3—IDB to Issue Preliminary No-Objection**. CDB submits Draft Project Document and Preliminary Checklist to the IDB. The IDB may decide on one of three outcomes:
  - Deem a project ineligible and reject the project application,
  - CDB may deem an application eligible subject to the provision of additional supporting material or areas in the application that need to be developed further.
  - Deem a project eligible and issue No-objection.
- **Step 4 - Prepare Final Project Document.** If the project is eligible, the applicant, with support from CDB, will prepare the Final Project Document. In cases where relevant technical/financial/legal/environmental studies (including the ESIA) have not been carried out, the applicant may request support from CDB and grant funding by submitting TORs to define the scope of such additional studies. If the ESIA is to be financed through funds from the SEF, the TOR for the ESIA will be reviewed by CDB and IDB for no-objection. The IDB shall return the TORs within a mutually agreed time.
- **Step 5—Carry out Appraisal Mission, Final Due Diligence and Final Environmental Classification**. Once the ESIA is publicly available, CDB and IDB carry out the Appraisal Mission supported by external experts to

undertake due diligence to confirm the technical, financial, economic, environmental, and social information provided by the applicant and finalize the appraisal of the project.

During the Appraisal Mission, CDB and IDB will receive and review the requested information for the due diligence. The ESIA consultants shall revise the ESIA and E&S Management Plans having regard to the issues identified by CDB/IDB during the Appraisal Mission. CDB will confirm the environmental classification of the project.

One of two outcomes may occur from this step:

- The project is not found technically, financially, and/or economically viable and so the project is not eligible for funding. If this occurs the application is rejected and the process ends.
- The project is found technically, financially, and economically viable and so the project is eligible for funding and the application progresses to the next step.

- **Step 6 - Divisional/Departmental Review.** Following the Appraisal Mission, CDB prepares a Draft Appraisal Report, including proposed loan or contingent grant terms and conditions (as discussed with the applicant) and E&S requirements, for internal Divisional/Departmental Review. The Draft Appraisal Report is revised as recommended by the review meetings (the Final Draft Appraisal Report).
- **Step 7—IDB issues Final No-objection to Final Draft Appraisal Report.** CDB submits the Final Draft Appraisal Report to the IDB for review and non-objection. IDB shall reply to CDB within a mutually agreed time after reviewing the Final Draft Appraisal Report, ensuring it includes the environmental, social, financial and engineering requirements and loan or grant terms and conditions.

  One of two outcomes may occur here:

  - The Final Draft Appraisal Report is rejected and the approval process ends.
  - IDB issues a no-objection to proceed to the next step.

- **Step 8 - CDB Loans Committee Review and Approval.** CDB's Loans Committee reviews the Final Draft Appraisal Report, inclusive of IDB's comments. One of two outcomes may occur here:

  - The Final Draft Appraisal Report is rejected and the approval process ends.
  - The Final Draft Appraisal Report is approved.

- **Step 9— Negotiation of Terms and Conditions of Loan/Grant.** CDB negotiates with the Sub-borrower/Final Beneficiary the terms and conditions of the Loan or Contingent Grant Agreement. CDB must include all

Environmental and Social Requirements identified in Step 5, in the Terms and Conditions. One of two outcomes may occur in this step:

- CDB and Sub-borrower/Final Beneficiary do not reach an agreement and the approval process for the project ends.
- CDB and Sub-borrower/Final Beneficiary reach an agreement and the project proceeds to the next step.

- **Step 10 — CDB Board Approval.** CDB will disclose a summary of the E&S Appraisal at a minimum of 10 days prior to Board Approval. The Final Appraisal Report is submitted to CDB's Board of Directors for approval.

  One of two outcomes may occur here:

  - CDB's Board rejects the Final Appraisal Report and the approval process ends.
  - CDB's Board approves the Final Appraisal Report.

- **Step 11—Sign Loan or Grant Agreement**. CDB prepares the Draft Loan Agreement or Draft Contingent Grant Agreement, based on the agreed Terms and Conditions. CDB and the Sub-borrower/Final Beneficiary sign the Loan or Contingent Grant Agreement.
- **Step 12—Funds Disbursed**. CDB disburses funds to the Sub-borrower/Final Beneficiary in accordance with the signed Loan/Grant Agreement, and CDB's Disbursement Policy.
- **Step 13—Evaluation of Success/Failure (in case of GrCL/LoCG).** This step only applies for contingent grant agreements that may fund exploratory & test drillings.

  - CDB may decide on a case by case basis if GrCL or LoCG will be more applicable for the use of CTF resources.
    - In the case of a GrCL funding, the SPV will receive a grant and in case the exploration is unsuccessful the GrCL remains as a grant. In case the exploration is successful the grant will turn into a loan and the loan conditions for CTF for GrCL will apply (see table 4.6). This case is recommended when the uncertainty of the geothermal source is very high.
    - In case of LoCG, a loan is provided from CDB to the SPV using IDB OC resources to fund the production drilling phase. If the well(s) drilled is/are unsuccessful, a grant will be made to the SPV from the CTF resources for the purpose of repaying the loan. Where the well(s) drilled is/are successful, the CTF (grant) resources are untouched and can be used for other drilling projects. This mechanism is recommended when the availability and adequacy of the geothermal resource is proven.
  - During due diligence by CDB/IDB (Step 5), the consulting firm hired by CDB/IDB or the Sub-borrower/Final Beneficiary will analyze technical

documentation on the project to pre-establish criteria of success/failure. All parties (IDB, CDB, the Sub-borrower/Final Beneficiary and other potential donors) will have independent access to the analysis/study. The key criterion is an estimated output in MWe “under the well-head” to be achieved by well(s), depending on nature of each specific project.

- During testing phase of wells (production and/or reinjection test) after the completion of drilling of wells, the hired consulting firm will conduct analysis of results to certify final electrical output in MWe “under the well-head’ actually achieved by the well(s).
- In case the well productivity in MWe is below the minimum expected output, GrCL remains as a grant or LoCG converts to a grant.

4.8 Component 3: Subcomponent 2B: Other Base-load RE

Component 3: Sub-component 2B funds the preparation and implementation of Other Base-load RE projects (non-GE projects).

4.8.1 Overview

Product

Subcomponent 2B provides a grant and/or loans to fund the implementation of Other Base-load RE projects (i.e. not GE projects). Projects eligible for a loan under this sub-component may or may not have received a grant for carrying out pre-investment activities. Projects that have already completed the pre-investment stage may apply directly for loans to plant installation activities.

Purpose

The purpose of Subcomponent 2B is to increase the uptake of viable base-load RE projects. This purpose is achieved by providing funding at concessional terms for implementing RE projects. This funding reduces the risk and cost, and increases the attractiveness and feasibility of these projects from the perspective of project developers and BMCs. This in turn enables the deployment of private and public sector funds for RE projects.

4.8.2 Eligibility criteria

Eligible Sub-borrowers and Final Beneficiaries

Loans and grants may be made to finance RE projects in the Eligible CDB Member Countries, which are done by:

- Governments of Eligible CDB Member Countries; and
- Public utilities in Eligible CDB Member Countries.

Eligible activities

The loans and grants of Sub-Component 2B will fund the preparation and specific stages of RE projects, as follows:

- Carrying out feasibility studies
- Preparing Environmental and Social Impact Assessments

4.8.3 Constructing power plants, substations, transmission lines and/or access roads.

4.8.4 Terms and conditions

Indicative terms and conditions for Sub-loans awarded under Sub-Component 2B are shown in Appendix E.

4.8.5 Processing of loan and grant support under subcomponent 2B

4.8.5.1 The relevant elements (steps) of procedure shown in Section 4.7.4 will be applied.

4.9 General Conditions

- **Restrictions:**
  - The resources of the Program are not to be used to refinance existing third-party debt, purchase securities, or pay for taxes/duties, or to buy military equipment or goods and services from countries that are not members of either the IDB or CDB, or to purchase goods and services included in the IDB List of Excluded Activities, or to fund capital and other operating expenses that would be incurred in the normal course of business.
  - The resources of the Program may not be used to finance sub-projects/programs or entities[11] involved in the production, trade or use of the products, substances or activities such as: products, substances and activities that are illegal under host country laws, regulations or ratified international conventions and agreements; Weapons and ammunitions; Tobacco[12]; Gambling, casinos and equivalent enterprises[13]; Wildlife or wildlife products regulated under Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)[14]; Radioactive materials[15]; Unbonded asbestos fibers[16]; Forestry projects or operations that are not consistent with the IDB's Environmental and Safeguards Compliance Policy (GN-2208-20); Polychlorinated biphenyl compounds (PCBs); Pharmaceuticals subject to international phase outs or bans[17];

11 "entities" means the Borrower's clients (Sub-borrowers) that benefit from a Sub-loan.

12 This does not apply to "entities" who are not substantially involved in these activities. "Not substantially involved" means that the activity concerned is ancillary to a company's primary operations.

13 This does not apply to "entities" who are not substantially involved in these activities. "Not substantially involved" means that the activity concerned is ancillary to a company's primary operations.

14 http://www.cites.org

15 This does not apply to the purchase of medical equipment, quality control (measurement) equipment and any equipment where it can be demonstrated that the radioactive source is to be trivial and/or adequately shielded.

16 This does not apply to the purchase and use of bonded asbestos cement sheeting where the asbestos content is <20%.

17 Pharmaceutical products subject to phase outs or bans in United Nations, *Banned Products: Consolidated List of Products Whose Consumption and/or Sale Have Been Banned, Withdrawn, Severely Restricted or not*

Pesticides/herbicides subject to international phase outs or bans[18]; Ozone depleting substances subject to international phase out[19]; Drift net fishing in the marine environment using nets in excess of 2.5 km. in length; Transboundary trade in waste or waste products,[20] except for non-hazardous waste destined for recycling; Persistent Organic Pollutants (POPs);[21] and Non-compliance with the Fundamental Principles and Rights at Work[22];

- **Cost Overruns:** budget overruns or changes in project scope are the responsibility of the Sub-borrower.
- **Inspection.** Governments that receive funding commit to using the funding only for purposes agreed with CDB, and agree to at least one inspection by independent auditors hired by CDB and/or IDB (in coordination with CDB) in accordance with CDB's procurement rules and IDB's, or dedicated CDB staff, to verify that use of funding is appropriate and terms and conditions are respected. CDB staff are also entitled to carry out inspections or contract consultants to do so.
- **Disbursements**. A condition prior to disbursement of any loan/grant is the signature of a Loan Agreement/Grant Agreement by CDB and the Sub-borrower/Final Beneficiary. CDB is responsible for drafting a standard Agreement that specifies the size and purpose of the loan; terms and conditions of the loan; and rights and duties of parties regarding inspections.
- **Other conditions:**
  - For procurement of those goods and services not financed out of the proceeds of the Program, the Sub-borrower may adopt other procedures. In such cases, CDB must be satisfied that the procedures to be used

Approved by Governments. (Last version 2008, http://www.who.int/medicines/areas/quality_safety/safety_efficacy/pharm_restrictions/en/index.html)

[18] Pesticides and herbicides subject to phase outs or bans included in both the Rotterdam Convention (http://www.pic.int) and the Stockholm Convention (http://www.pops.int).

[19] Ozone Depleting Substances (ODSs) are chemical compounds which react with and deplete stratospheric ozone, resulting in the widely publicized 'ozone holes'. The Montreal Protocol lists ODSs and their target reduction and phase out dates. The chemical compounds regulated by the Montreal Protocol include aerosols, refrigerants, foam blowing agents, solvents, and fire protection agents. (http://ozone.unep.org/Publications/6ii_publications%20handbooks.shtml).

[20] Define by the Basel Convention (http://www.basel.int).

[21] Defined by the Stockholm Convention on the reduction and elimination of persistent organic pollutants (POPs) (2001) and presently include the pesticides aldrin, chlordane, dieldrin, endrin, heptachlor, mirex, and toxaphene, as well as the industrial chemical chlorobenzene (http://chm.pops.int/).

[22] Fundamental Principles and Rights at Work means (i) freedom of association and the effective recognition of the right to collective bargaining; (ii) prohibition of all forms of forced or compulsory labor; (iii) prohibition of child labor, including without limitation the prohibition of persons under 18 from working in hazardous conditions (which includes construction activities), persons under 18 from working at night, and that persons under 18 be found fit to work via medical examination; and (iv) elimination of discrimination in respect of employment and occupation, where discrimination is defined as any distinction, exclusion or preference based on race, color, sex, religion, political opinion, national extraction, or social origin. (International Labor Organization: http://www.ilo.org).

ensure that the total project can be carried out diligently and efficiently. CDB must also be satisfied that the goods and services to be procured: (i) are of satisfactory quality, and compatible with the balance of the project; (ii) are delivered or completed in a timely fashion; and (iii) are priced so as not to adversely affect the financial viability of the project

- Any major change considered in the execution of the contract must be approved by CDB. A major change is one that results in a 10 percent increase in overall project cost, or more.

  For Disbursements to pay for equipment, material, and services are made the Sub-borrower may use any of the following methods of withdrawal from a grant or loan account:

  - reimbursement for expenditure incurred by the Sub-borrower;
  - direct payment to supplier, contractor or consultant; and
  - commitment in which a commercial letter of credit to pay a supplier is established with a commercial bank. CDB assures payment from the related grant or loan proceeds to the paying bank.

- All of these disbursement methods require supporting documentation.
- All sub-loans made by CDB with the resources of the SEF shall include among the conditions required from each Sub-borrower, at least the following:

  a) the commitment of the Sub-borrower to use the proceeds of the sub-loans that are investment loans exclusively to acquire goods and services required for the execution of the respective Sub-projects;

  b) the right of CDB and of IDB to inspect the goods, sites, works and structures of the respective Sub-project;

  c) the obligation of the Sub-borrower to furnish all information that CDB may reasonably request of the Sub-borrower with respect to the Sub-project and the financial situation of the Sub-borrower;

  d) the right of CDB to suspend disbursements of the Sub-loan if the Sub-borrower does not fulfill its obligations;

  e) the commitment of the Sub-borrower to ensure that procurement of goods and services with Sub-loan resources are carried out according to principles of efficiency and economy, at a reasonable cost, considering market price, quality, and any other pertinent factors;

  f) the commitment of the Sub-borrower to comply with the environmental, social, health, safety and labor requirements set forth in IFC and World Bank Safeguard Policy;

  g) an undertaking by the Sub-borrower to insure the goods purchased with the Sub-loan, and to keep them insured, against the risks and for

amounts consistent with normal commercial practices within the possibilities existing in the country;

h) the commitment of the Sub-borrower to ensure appropriate maintenance of equipment or works financed with SEF resources, as well as requiring periodic reports regarding the Sub-borrower's maintenance programs; and

i) the creation by the SPV established under a PPP of appropriate specific security in favor of CDB.

5 Financing and Procurement Arrangements

This section presents the financial and procurement arrangements for the SEF. These arrangements establish the rules governing the terms, conditions, and procedures that CDB must comply with to obtain, administer, and use the funds. This section also establishes the rules that govern how CDB and the projects that receive funding from the SEF purchase goods, works, and services. This section is organized as follows:

- Funding arrangement (Section 5.1)
- Disbursement to CDB (Section 5.2)
- Rules for procurement of goods and services (Section 5.3).

5.1 Funding Arrangement

5.1.1 Funding sources

The project includes OC financing by the IDB in the form of a GCL to CDB, which will be complemented with resources from other sources, and provided to finance eligible sub-loans and sub-grants in beneficiary countries in the independent ECC. Other funding sources that will contribute towards the project include the CTF, GCF, and the GEF, which are all administered by the IDB, as well as resources to be provided by CDB as local counterpart.

5.1.2 Fund allocation by project

Loans are on a first-come, first-served basis, provided that:

- The funding amount to any Eligible CDB Member Country does not exceed 50% of total Loan resources, unless, on the basis of special circumstances, it obtains the prior written agreement funding available under the Program.
- A minimum of 3 Eligible CDB Member Countries benefits from the Program.

5.2 Disbursement for CDB

5.2.1 Disbursement period and procedures

The disbursement period for the IDB OC loan is eight (8) years with a 7-year commitment period. The latter is the period for the sub-loan agreements to be signed. The CTF grant will have a disbursement and execution period of 8 years, the GCF grant will have a disbursement and execution period of 8 years, and the GEF grant will have a disbursement and execution period of 5 years.

CDB will be responsible for the submission of all disbursement requests to IDB. Disbursement methodologies available are as follows:

i) Advance of Funds

ii) Reimbursement of Payments Made

iii) Direct Payment to Supplier.

It is anticipated that the Reimbursement of payments made and advance of funds methodologies will be mainly used for the project. Justification of advance of funds and

reimbursement of payments made will be processed based on disbursements of sub-loans or grants by CDB.

Each Advance of Funds shall be subject to: (i) The request for advance of funds being presented in a manner acceptable to the IDB; and (ii) with the exception of the first advance of funds, CDB should have presented a justification for the use of at least 70% of the total cumulative balances pending justification for this purpose, and the IDB having accepted such justification.

Reimbursement of expenditures and justification of advance of funds will be made based on disbursements of loans or grants by CDB. For purposes of determining the equivalency of expenditures incurred in local currency of the reimbursement of expenditures chargeable to the loan, the agreed exchange rate shall be the exchange rate on the effective date on which the Sub-borrower, the EA, or any other person or legal entity in whom the power to incur expenditures has been vested makes the related payments to the contractor, supplier or beneficiary.

Disbursements may vary from year to year depending on demand—if funds disbursed to the SEF for any Component are, in turn, disbursed to eligible customers ahead of time, subsequent disbursements may be frontloaded.

The process for disbursements using the advance of funds methodology is as follows:

- CDB submits a request for an advance of funds to the IDB, supported by i) a financial plan covering a period of 6 months, which includes the requested amount of the advance broken down according to component and sub-loans/grants or activities, and ii) a list of commitments (e.g. sub-loans/grants) under the project.
- The IDB, and donors if necessary, assess the amount and timing of the advance of funds requested.

Reimbursement of payments made will be processed based on actual amounts disbursed by CDB against sub-loans/grants and activities.

It should be noted that CDB and the IDB will hold one or more meetings, as needed, to agree on the timing and amounts to be disbursed, and on the update of the disbursement schedule.

Disbursements will also be guided by the IDB's norms and procedures as outlined in the IDB Disbursement Handbook and Financial Management Guidelines (OP-273-6).

5.2.2 Conditions for disbursements by the Donors to CDB

The arrangements for executing disbursements by the donors to CDB are the following:

- IDB
  a) The OM, including the Sub-loan/Sub-grant model agreements (Appendix G), has been approved, in accordance with the terms and conditions previously agreed upon between CDB and the IDB.
  b) The non-reimbursable investment agreement No. ___ (insert number of CTF agreement), mentioned in Section 4.01 of these Special Conditions

has been duly signed between CDB and the IDB, and has entered into effect.

c) The non-reimbursable investment agreement No. ___ (insert number of GCF agreement), mentioned in Section 4.01 of these Special Conditions has been duly signed between CDB and the IDB, and has entered into effect.

d) The non-reimbursable investment agreement No.___ (insert number of the GEF agreement), mentioned in Section 4.01 of these Special Conditions has been duly signed between CDB and the IDB, and has entered into effect.

e) (Special condition) CDB shall submit evidence that, before the initiation of the activities of Component 3: (i) the Program Manager and the Technical Specialist, whose functions and responsibilities are defined in this document, have been assigned to the Program; and (ii) an expert consulting firm has been contracted to support the Borrower to assess, appraise, design and develop at least the first of the GE PPP Sub-projects, in accordance with the terms of reference agreed with the IDB.

5.3 Rules for Procurement of Goods, Works, and Consulting Services

This section applies to the procurement processes carried out directly by CDB as well as those undertaken by the Sub-borrowers that receive SEF funding. This section is organized as follows:

5.3.1 Applicable Procurement Policies

The documents that establish the procedures for purchasing goods, works, and consulting services with funding from the loan and non-reimbursable financing agreement between the IDB and CDB, and the loan and grant agreements between CDB and Sub-borrowers or Eligible Beneficiaries are:

- CDB's "Guidelines for Procurement", dated January 2006, govern the procurement of goods, works, and services (other than consultant services), as amended from time to time;
- CDB's "Guidelines for the Selection and Engagement of Consultants by Recipients of CDB Financing", dated October 2011, govern the selection and engagement of consultants, as amended from time to time.

The eligibility requirements in the aforementioned Guidelines shall be extended to permit the unrestricted participation of firms and individuals from IDB member countries and therefore procurement eligibility is open to CDB and IDB member countries.

The IDB reserves the right to carry out an *ex post* review of the procurement procedures being followed, on a yearly basis, or as it deems necessary. The *ex post* review may be carried out by the IDB, expert consultants engaged by the IDB, or during the audit of the Borrower, in accordance with the Loan Contract.

6 Reporting and Oversight Arrangements

Reporting and oversight arrangements for the SEF are designed so that the Program fully meets monitoring and evaluation requirements, complies with all fiduciary arrangements mandated by the IDB[23] and other donors, and ensures that funds are appropriately and efficiently used. The reporting and oversight arrangements are based on the following documents pertaining to the SEF:

- The Loan Proposal[24];
- The Results Matrix[25];
- The Monitoring and Evaluation Plan[26];
- The ESMR;
- Semi-annual financial statements, which include financial status reports on Sub-loans, within sixty (60) days of the end of each calendar semester during Program execution;
- Annual Audited Financial Statements of CDB, within one hundred and eighty (180) days of the closing of each fiscal year;
- Annual assurance reports on the process of preparation and submission of disbursement requests under the Program, within one hundred and eighty (180) days of the closing of each fiscal year. The assurance review shall be performed by independent auditors who have been previously accepted by the IDB;
- A final assurance report on the process of preparation and submission of disbursement requests under the Program, within one hundred and eighty (180) days of the closing (i.e. last disbursement date) of the Program.

The section is structured as follows:

- Presents an overview of the Monitoring and Evaluation Plan for the Program (Section 6.1)
- Describes the oversight arrangements for the SEF and OM (Section 6.2)
- Details the plan for revising the OM (Section 6.3).

[23] IDB Financial Management Guidelines OP-273-6 and Financial Reports and External Audit Handbook for IDB Financed Projects

[24] Sustainable Energy Facility (SEF) for the Eastern Caribbean (RG-L1071). Loan Proposal. Inter-American Development Bank. 2015.

[25] Sustainable Energy Facility (SEF) for the Eastern Caribbean (RG-L1071). Results Matrix. Inter-American Development Bank. 2015.

[26] Sustainability Energy Facility for the Eastern Caribbean (RG-1071). Monitoring and Evaluation Plan. June 2015.

6.1 Monitoring and Evaluation Plan

CDB will monitor and supervise operations based on their policies and procedures and provide IDB with the necessary information for IDB to monitor and evaluate the program as well as to comply with its reporting obligations to the CTF, GCF, and GEF.

The monitoring and evaluation (M&E) plan describes the actions and reporting requirements that will be used to track the progress of the SEF and the individual sub-projects it funds. The Program is monitored and evaluated by tracking and measuring compliance with targets for a set of indicators. The M&E explains the performance indicators used to track and measure the progress and results related to individual projects and the SEF's operations and finances.

The M&E plan is organized in two main sections:

- The **Monitoring Plan**—presents the impact, results, and output indicators used to monitor the Program's progress. It also assigns the responsibility for collecting data and calculating the indicators, defines the instruments used to monitor the Program, and establishes the work plan and budget for monitoring the SEF.
- The **Evaluation Plan**—presents the main questions the Evaluation Plan addresses, explains the studies that the Evaluation Plan builds upon, identifies the indicators used to evaluate the Program, and describes the methodology and instruments used to evaluate the results of the Program. The evaluation plan also describes the institutional arrangements, work plan, and budget to carry out the Evaluation Plan.

The results of CDB's monitoring and supervision of the SEF will be reported to the IDB through:

Semi-annual Progress Reports submitted no later than 60 days after the end of each calendar semester during Program execution. These reports will indicate the degree of fulfillment of the output indicators and progress toward the outcomes of the Results Matrix. They will also include for each individual operation: (i) a report on its consistency with the Sub-loans eligibility criteria, environmental and social safeguards criteria as detailed in the OM, and the IDB´s GCI-9 priority lending targets; (ii) CDB financial statements of the individual operation and summary updates on its situation, the problems encountered and measures taken to address them; and (iii) data on the outcome and outputs of the results matrix of the individual operation. The latter will be based on information in CDB's Project Supervision Reports, copies of which will be annexed to the Semi-annual Progress Reports.

Program evaluation will require the completion of the following:

Midterm review. After 4 years from the date of the first disbursement, a midterm review will be conducted by CDB, as detailed in the M&E plan.

Project Completion Report (PCR). A PCR will be prepared evaluating the impact and results obtained by the SEF and each sub-project completed. As part of the PCR an ex post cost benefit analysis of the SEF will be developed. It is recommended that the PCR be conducted within six (6) months after disbursement of 100 percent of the SEF

resources. The PCR will include the progress in meeting the project results as defined in the results matrix, information on the execution of the program and lessons learned.

GCF Midterm Project Review, Project Completion Report (PCR), and Final Evaluation. An independent evaluator jointly with CDB and IDB will conduct a midterm review once 50 percent of loan resources are disbursed, or after four years of the initiation of program execution, whichever is earlier.

A Project Completion Report will be turned in to the GCF once 100 percent of the program is completed. The PCR will include an ex-post cost benefit analysis of the program, an evaluation of the results against the results matrix, information on the execution of the program, and lessons learned. A final evaluation will take place six months after the closing date of the Program. Both evaluations will be conducted by independent consultants hired by the IDB with resources from the agency fee provided by the GCF.

GEF Midterm Review and Terminal Evaluation. A mid-term evaluation will take place four (4) years from the first disbursement of the GEF resources. A final evaluation will be carried out six months after the disbursement of 100 percent of the Program resources. Both evaluations will be conducted by independent consultants hired by IDB with resources from the agency fee provided by the GEF.

Additionally, and specific to environmental and social issues, CDB will prepare TOR for supervision and E&S audit of the Sub-borrower/Final Beneficiary's management of E&S issues. CDB will conduct supervision of E&S management on an annual or bi-annual basis depending on severity of risk and impacts. Supervision costs for consultant are paid for by CDB's project budget. When necessary, and on the recommendation of external consultant, CDB may require the Sub-borrower/Final Beneficiary to adopt a Corrective Action Plan (CAP), where particular risks become present. IDB will review the TOR for supervision, and E&S audit, and provide comments if required. IDB will participate as necessary in subsequent supervision missions. Copies of supervision reports will be provided to IDB as a component of annual reporting. In case of a CAP, IDB will review and approve the defined CAP.

Please see the separate M&E plan for more details regarding impact, results, and output indicators and their frequency of measurement.

6.2 Oversight of the SEF

The IDB is responsible for overseeing the execution of the SEF. However, the funding donors may hire independent consultants to carry out objective and independent assessments of the projects implemented with SEF funding. The purpose of the oversight role is to avoid any fraud or irregularity in using the funding from the SEF.

Inspections are a necessary tool, and independent evaluators are needed to oversee implementation of the SEF—to verify that funds are being used for their intended purpose. The sub-borrowers and/or beneficiaries of the SEF must agree to inspections at least once per year, by an independent auditor hired by CDB and by CDB staff members, in accordance with CDB guidelines, as detailed in Section 5.3.

6.3 Revision of the OM

This OM may be revised on a semi-annual basis, based on a semi-annual review by CDB and the IDB. The PM of the SEF is responsible for drafting revisions to the OM. The REEEU is responsible for sending any revisions to the OM to the IDB for no-objection. After receiving a written notice of no-objection from the IDB, the REEEU issues a revised version of the OM and distributes it to the IDB, other donors, and SEF beneficiaries and sub-borrowers.

7 Financial Management

This section presents the financial management arrangements fror SEF.

7.1 Introduction

The SEF Program will involve CDB's management of funds from four sources:

- IDB Ordinary Capital (OC) for the Sustainable Energy Facility (SEF) for the Eastern Caribbean Development Bank; Loan Contract No. 3561/OC-RG dated October 20, 2015, between Caribbean Development Bank (CDB) and Inter-American Development Bank (IDB)
- Clean Technology Fund (CTF) Non-reimbursable Investment Financing Agreement No. GRT/TC-15205-RG dated October 20, 2015 between CDB and IDB (the CTF Grant Agreement)
- Green Climate Fund (GCF)
- Global Environment Facility (GEF) Non-reimbursable Investment Financing Agreement No. GRT/FM-15208-RG dated October 20, 2015 (the GEF Grant Agreement).

7.2 Accounting and Information Systems

CDB's financial system includes a Bank Enterprise System (Infor's SmartStream), an Investment application (PORTIA) and a Loan, Borrowing and Grant Management System (Flexcube).

Customized reports from Flexcube are undertaken through the Cognos Version 10 reporting tool which extracts data from CDB's Data Warehouse to which uploads FlexCube data is uploaded daily. These reports are provided on a tailored and menu based system that can provide summary or detailed information across funds, countries and sectors.

The FlexCube system also uploads data daily into SmartStream Enterprise System which comprises the General Ledger, Accounts Payable, Accounts Receivable, Travel Management and Fixed Assets, among other applications. This Flexcube application will be used in the management of the Project.

On a monthly basis, reconciliations are performed between the subsystems and SmartStream to ensure that financial records are in agreement. Other monthly reports are prepared for management and quarterly reports for the Board of Directors.

Financial reports are prepared in accordance with International Reporting Standards under the historical cost basis except as modified by the revaluation of debt securities at fair value through profit and loss and derivative financial instruments which are reflected at fair value.

7.3 Disbursements and Funds Flows

Separate unique general ledger funding sources are created for each set of contracted amounts between CDB and any other partner. This separation allows for ease of

financial and management reporting. Table 7.1 below: shows the list funding sources under the SEF Program.

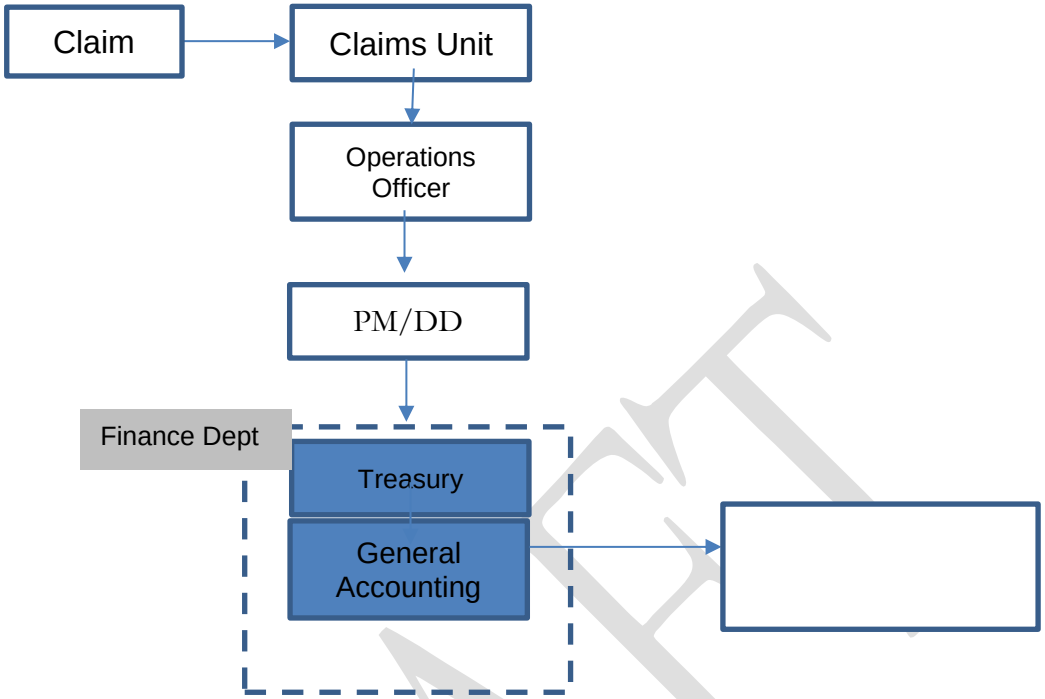
Table 7.1: Funding Sources Under the SEF Program

Funding Source Code	Description
19705	IDB Ordinary Capital (OC) for the Sustainable Energy Facility (SEF) for the Eastern Caribbean Development Bank; Loan Contract No. 3561/OC-RG dated October 20, 2015, between Caribbean Development Bank (CDB) and Inter-American Development Bank (IDB)
39728	Clean Technology Fund (CTF) Non-reimbursable Investment Financing Agreement No. GRT/TC-15205-RG dated October 20, 2015 between CDB and IDB (the CTF Grant Agreement)
	Green Climate Fund (GCF)
39727	Global Environment Facility (GEF) Non-reimbursable Investment Financing Agreement No. GRT/FM-15208-RG dated October 20, 2015 (the GEF Grant Agreement).

All funds received under a specific agreement (in this case the SEF Program) are put into a designated bank account through which all transactions, receipts and payments, are recorded and identified by the unique funding source. This unique funding source enables report generation for each individual Project.

Disbursements are made through an electronic workflow which contains its own internal controls. Each claim is first checked for compliance with the agreement before entry into the system. The claim is then sent to the relevant Operations Officer responsible for the management of the Project for approval. A second approval is then required from a level above, either the Portfolio Manager or the Deputy Director before the claim is electronically sent to the Finance Division for payment. Within the Finance Division there are two additional approvals (with the Treasury Unit, and the General Accounting Unit) which are required before the payments are actually transferred to the sub-borrower/beneficiary. See the figure below.

Figure 7.1: Disbursement of Funds under the SEF



7.4 Internal Audit and Controls

CDB's internal control procedures are utilized for each project. These procedures have provided reasonable levels of assurance, as indicated through the annual unqualified external audit opinions, that project funds are used for the purposes for which they were intended; transactions, decisions and activities are properly authorized and documented and are executed in accordance with the relevant legal agreements.

CDB's Operational Policies and Procedures Manual, Volume 4-1 "Withdrawal of Proceeds of Loans", contains the procedures and controls for the financial and operational aspects for projects under CDB's management and details of the controls and separation of duties within the Finance Division are specified in the Accounting Policies and Procedures Manual.

7.5 External Control and Reporting

CDB will submit its Annual Audited Financial Statements within 180 days of the financial year end of December 31st. This period is required to facilitate the approval of the audited financial statements by CDB's Board of Governors in May of each year.

Other financial reports will be submitted in accordance with the conditions contained in the agreement.

Appendix A: Documentation Required for Loan/Grant Applications of Geothermal Projects

This Appendix presents the supporting material that the project developer must include in its application for resources to support GE development

A.1 Developer information

- Project owner
- Holder geothermal license
- Project Manager (CV)
- Project team (including CVs)
- Engineering Office (including CVs)
- Geology Office (including CVs)
- Drilling Company (including CVs)
- Drilling supervisor (incl. CV)
- Financial statements and other financial information
- Previous geothermal projects developed by the developer (year, MW installed)

A.2 Technical Information

- Status of the project (mandatory)
- Geological setting (mandatory)
- Geochemical analysis and interpretation (mandatory)
- Geophysical analysis and interpretation. Among them the developer will be invited to submit:
  - report/interpretation of remote sensing (e.g. acquisition of new data, processing, reprocessing and reinterpretation of old data)
  - report/interpretation of gravity measurements (e.g. acquisition of new data, processing, reprocessing and reinterpretation of old data) (mandatory)
  - report/interpretation of magnetotelluric (MT) analysis (e.g. aquisition of new data, processing, reprocessing and reinterpretation of old data) (mandatory)
  - report/interpretation of resistivity measurements (e.g. acquisition of new data, processing, reprocessing and reinterpretation of old data) (if available)

  - report/interpretation of seismic analysis (e.g. acquisition of new seismic lines - 2D/3D, processing, reprocessing and reinterpretation of old seismic data) (if available)
  - report/interpretation of vertical electrical sounding (VES) measurements (e.g. acquisition of new data, processing, reprocessing and reinterpretation of old data) (if available)
- Geological/Geothermal model as result of the exploration work done, including geological layers, fault model and near-by well data (mandatory)
- Dynamic, hydrogeological model including fault systems (mandatory)
- Simulation of the thermal short term and long term response of the well, including thermal in fluency of producer and injector well: thermal break through; influence on neighboring wells (is available)
- Additional information that the PMU could require.

A.3 Drilling and Well Development Information

- Well name(s)
- Coordinates of the well(s)
- Detailed drilling program (well design incl. bit size, casing/liner size, setting depth, well completion, DLS, max. deviation, MD and TVD depth, etc.)
- Planned stimulation methods and measures
- Loss mitigation: possible scenarios (e.g. sidetrack, fracturing, acidizing, etc.)
- Reservoir system
  - Target formation (lithology, depth - top reservoir, thickness, porosity, permeability expected)
  - Expected results (temperature, flow rate, draw down, thermal output MWe)
- Reference data of neighboring wells if they exist (measured depth, true vertical depth, temperature, flow rate, draw down, inclination, reservoir formation)
- Production test data of neighboring wells (if available)
- Additional information that the PMU could require.

A.4 Geothermal Project Information

- Location of the geothermal project: description of the planned drilling location(s) (federal state, city, coordinates) and map of planned drilling location(s) and neighboring wells (if they exist).
- Map of the geothermal concession area

- Overview map including mining license area, near-by licenses, planned wellsite, near-by wells, etc.
- Environmental and Social Impact Assessment
- Description of the time schedule of the project and it's developing status
- Energy utilization concept heat/electricity, flash/binary/steam
- Description of the estimated/known costs of the project
- Detailed project budget (also contingencies)
- Feasibility study (due diligence report, study on possibility of success)
- Additional information that the PMU could require.

Appendix B: Parameters for Environmental and Social Classification of Projects

The table below provides general and indicative parameters for classifying projects in terms of their environmental and social impact. The final categorization will depend on each project's specific impacts. For non-geothermal Category A projects, the IDB and CDB will agree on a case by case basis a due diligence process. That process will include at a minimum two stages of no-objections from the IDB at the concept and appraisal stages.

Table B.1: Parameters for Classifying the Environmental and Social Impact of Projects

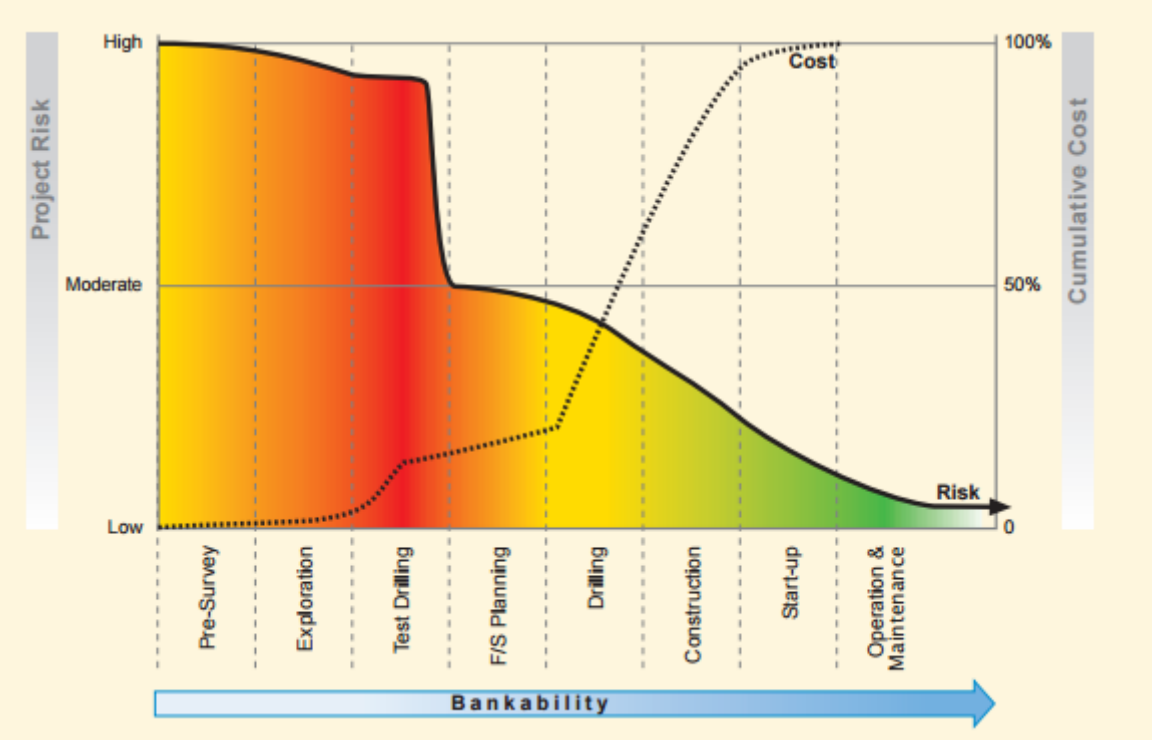
Category	Project examples and general parameters
Category A	Geothermal exploratory drilling, production and reinjection drilling, power plant construction, and construction of pipelines New transmission lines in excess of 30 km in areas of high conservation value linked to geothermal projects Wind farms greater than 50 MW in capacity Projects with high social impacts, in indigenous communities, involving significant resettlement, or in areas of conservation value linked to geothermal projects
Category B+	Small-scale geothermal (less than 7MW) on existing degraded sites with no social/natural habitat impacts Early stage geothermal slim hole drilling New transmission lines in excess of 15 km Wind farms between 20-50MW in capacity, or with natural habitat impacts Solar projects greater than 50 MW, or with natural habitat impacts
Category B	Solar projects below 50 MW with no natural habitat impacts Energy efficiency projects with management of hazardous wastes
Category C	Energy efficiency projects with no management of hazardous wastes

Source: RG-L1071- Environmental and Social Management Report 2015

Appendix C: Geothermal Project Cost and Risk Profile at Various Stages of Development

Figure C.1 shows the cost and risk profile for geothermal projects at various stages of development.

Figure C.1: Project Cost and Risk Profile at Various Stages of Development



Source: Gehringer, Magnus; Loksha, Victor; "Geothermal Handbook: Planning and Financing Power Generation" Energy Sector Management Assistance Program. The World Bank. June 2012. https://www.esmap.org/sites/esmap.org/files/DocumentLibrary/FINAL_Geothermal%20Handbook_TR002-12_Reduced.pdf. Pg. 4. Accessed on 30 July 2015.

Appendix D: Preliminary Checklist for Funding of RE Projects from Component 3

Information to be supplied as part of the initial due diligence for a Renewable Energy Project being developed in the context of SPV and PPP

1. **Government Agreements & Concessions**
   - 1.1. Any agreements with the government, or local regulatory authorities to which the Proposer is a party (including, inter alia, the Concession Agreement signed by the Proposer and government)
   - 1.2. All material governmental permits, approvals, licenses, consents or authorizations, and related correspondence of the Proposer
   - 1.3. Copy of Tender Documents used as part of the competitive procurement of the concession
   - 1.4. Leases for access to resources

2. Exploration and Development Plan

- 2.1 RE Resource assessment, including Peer Review where indicated;
- 2.2 Development plan
- 2.3 Infrastructure assessment – access roads (including for landing and moving equipment to site), Transmission & Distribution, etc.

3. Ownership and Financing

- 3.1 Evidence of Equity commitments thus far obtained by the Proposer
- 3.2 Evidence of other Financing commitments or letters of interest from reputable financial institutions
- 3.3 Agreements among shareholders relating to the ownership and management of the project company (including shareholders' agreements, share purchase agreements, share retention agreement, investment agreements, options, warrants, voting rights agreements, etc.)

4. Environmental Reports and Permits:

- 4.1. Environmental/planning/building permits obtained, or required to be obtained, by the Proposer to build, operate and/or carry out the Project
- 4.2. Environmental and Social Impact Assessment Reports

5. Demand, and Power Off-take

- 5.1. Draft Power Purchase Agreements
- 5.2. Evidence of demand to be supplied

6. Business Plan: Including:

- 6.1. Estimated Project Cost
- 6.2. Project schedule, milestones and decision points
- 6.3. Financial Projections, assumptions around tariffs

Appendix E: Indicative Terms and Conditions of Loans

E.1 Terms and Conditions of Loans

Funding	CDB to Sub-borrowers (IDB OC resources)	CDB to Final Beneficiaries Convertible Grant resources (CTF)	CDB to Final Beneficiaries Convertible Grant/Loan resources (GCF)
Currency	USD	USD	USD
Amount (US$ million)	Up to 10,000,000	Up to 9,525,000	Convertible Grant up to 16,000,000 Loans up to 60,000,000
Annual interest rate (%)	Variable (3.3% as at January 2017)	1.75%	Fixed 0.75% + [ ]
Amortization Period (includes grace period) (Years)	Up to 14 years (inclusive of grace period)	Minimum of 10 years – maximum of 25 years	Up to 20 years (inclusive of grace period)
Grace period (Years)	Up to 5 years	Up to 5 years	Up to 5 years
Commitment Fee (%)	1% p.a.	N/A	0.75% p.a.
Disbursement period	Maximum 8 years (difference between 8 and the year the contract with the Sub-borrower is signed)	Maximum 8 years (difference between 8 and the year the contract with the Sub-borrower is signed)	8 years
Maximum coverage (%)	Up to 80%	Up to 80%	

E.2 Formula to Calculate Blended Terms

$$R^* = \sum n_i \times r_i / n_t$$

Where:

$n_t = \sum n_i$

R^* is the blended interest rate

n_i is the funding provided by donor i

r_i is the interest rate of donor j (see annex E)

and n_t is sum of all contributions (loans).

Appendix F: Guiding Principal of PPPs and PPAs

A Public Private Partnership is an arrangement that, if done correctly, can improve the provision of public services by mobilizing private sector resources, attracting expertise, and encouraging the efficient use of public funds. They are also complicated arrangements that carry fiscal and operational risks. A PPP should not be used to hide risks and transfer them to the public sector balance sheet. The risks involved must be fairly assessed and allocated in the most efficient manner. The use of a PPP should maximize the value for money for the public benefit. Below are some guidelines that will increase the probability that a PPP will achieve its intended results.

- Sound Legal Framework—A country should possess a regulatory framework that clarifies the roles and responsibilities of the relevant counterparties, public and private. The regulatory framework should include a dispute resolution mechanism. If does not already exist, it is highly recommended the private sector, potential operators and investors, provide inputs and feedback when the framework is being crafted.
- Activities undertaken during Component 2 of the project that strengthen the regulatory framework and building institutional capacity should consult closely private sector stakeholders, including potential donors such as CDB and IDB (IDB including the private sector lending arm), during this process. This will increase the likelihood that projects will be able to attract sufficient levels of private capital.
- Public Sector Capacity—The public sector should possess the expertise and ability to evaluate, select, and monitor projects. Ideally, there would be a PPP unit that participates at all stages of the project lifecycle from project planning and structuring to contract management. These units would play a coordinating role and can financially assess the projects impact. The impact of the PPP should be reflected on future government spending and be incorporated in the debt sustainability analysis.
- Risk Allocation—Risks should be identified and allocated in the most efficient manner. A clear and detailed risk matrix should identify risks transferred to the private partners and risks retained by the public sector, providing mitigation strategies for the latter. It should identify the nature of the risk, it probability of occurring, and its expected impact on the project.
- Proper Incentives—The arrangement should provide a structure that properly aligns the incentives of the different stakeholders of the project. Private entities should bear a portion of the risk and be properly incentivized to produce the desired results over the long term. Contracts should specify the desired products and services, but they should include a degree of flexibility that will allow private entities to innovate and improve efficiencies.
- As many of the loans in this facility will focus on power generation, it is important that the PPAs reflect the particular characteristics of the generation type. Geothermal, wind, and solar projects often require different PPA structures than traditional thermal generation plants.
- Concessionality—If the PPP requires concessional terms to attract private sector investment, the rationale and the pass-through of concessionality to PPA should be articulated and calculated using a transparent process. The objective is to attract private sector participation and achieve the objectives of the project by benefitting the country by reduction of the electricity tariff.

Guiding Principles of Geothermal Power Purchasing Agreement (PPA)

A PPA is a contract between two parties, one who generates electricity for the purpose (the seller) and one who is looking to purchasing electricity (the buyer). A PPA for a geothermal will in many ways resemble a PPA for a traditional generating facility. Many provisions such as metering, invoicing, contract price, and the delivery point where the energy will be sold can be easily adapted from a conventional PPA. Geothermal PPAs are distinct in certain aspects however, and these issues must be considered when they are prepared.

- Termination Rights—PPAs often include off-ramp provisions that enable one or both parties to terminate the agreement without penalty (e.g. a party's inability to obtain a key agreement). These termination rights should be carefully considered and negotiated as both parties will want to limit the other party's right to terminate.
- Tax Credits and Other Fiscal Incentives—In many country's geothermal is considered to be renewable and often comes with renewable energy credits (RECs). A power purchase agreement should clearly state whether RECs are bundled with the sale of electricity (i.e. whether the buyer or the seller owns the RECs). A PPA should also clearly define the other financial incentives granted for the investment and to whom they belong.
- Resources Degradation—A PPA may require a seller to guarantee that a project will meet certain performance standards. For example, an output guarantee requires a seller to pay a buyer if the output during a specified period fails to meet a minimum level. A seller's data regarding the project's geothermal resource will be crucial in determining the right level for an output guarantee. If the resource is expected to degrade, the PPA may adjust performance standards downward during the term.
- Operational Force Majeure Events—A PPAs force majeure clause is very important and should carefully distinguish between events that are excuses (which relieve the affected party from the duty to perform), and those that are risks (which are allocated to one party or the other. For geothermal projects, sellers may want a force majeure clause to address unexpected depletion of the geothermal resource and other potential risks.
- Station Service—Geothermal plants differ from other resources in that they have signification station service requirements for extracting, re-injecting, processing, and otherwise using the geothermal resources. These issues should be incorporated into the PPA
- Non Payment—A PPA may require measures to mitigate non-payment risk by a buyer, for example by penalties for non-payment by the utility or by developing an escrow account to be used in the case of non-payment of the utility.

Appendix G: Grant Model for CDB and PPP for EE, RE and GE projects

Appendix H: Contingent Grant and Loan Convertible to Grant Model for CDB and PPP for EE, RE and GE projects

Appendix I: Loan Model for CDB and PPP for EE, RE and GE projects

Appendix J: Environmental and Social Management Report (ESMR)