

GEF-8 REQUEST FOR MSP (1-STEP) APPROVAL

TABLE OF CONTENTS

GENERAL PROJECT INFORMATION	3
Project Information	3
Project Summary	4
Project Description Overview	5
PROJECT COMPONENTS	5
PROJECT OUTLINE	7
A. PROJECT RATIONALE	7
B. PROJECT DESCRIPTION	10
Project description	10
Institutional Arrangement and Coordination with Ongoing Initiatives and Project.	14
Core Indicators	16
Key Risks	18
C. ALIGNMENT WITH GEF-8 PROGRAMMING STRATEGIES AND COUNTRY/REGIONAL PRIORITIES	22
D. POLICY REQUIREMENTS	22
Gender Equality and Women's Empowerment:	22
Stakeholder Engagement	23
Private Sector	23
Environmental and Social Safeguard (ESS) Risks	23
E. OTHER REQUIREMENTS	24
Knowledge management	24
Benefits	24
ANNEX A: FINANCING TABLES	25
GEF Financing Table	25
Project Preparation Grant (PPG)	25
Sources of Funds for Country Star Allocation	25
Focal Area Elements	26
Confirmed Co-financing for the project, by name and type	26
ANNEX B: ENDORSEMENTS	26
GEF Agency(ies) Certification	26
Record of Endorsement of GEF Operational Focal Point (s) on Behalf of the Government(s):	27
ANNEX C: PROJECT RESULTS FRAMEWORK	27
ANNEX D: STATUS OF UTILIZATION OF PROJECT PREPARATION GRANT (PPG)	31
ANNEX E: PROJECT MAP AND COORDINATES	31
ANNEX F: ENVIRONMENTAL AND SOCIAL SAFEGUARDS SCREEN AND RATING	35
ANNEX G: BUDGET TABLE	35

General Project Information

Project Information

Project Title:

Caribbean Efficient and Green-Energy Buildings (CEGEB) Project

Region:

St. Lucia

GEF Project ID:

11655

Country(ies):

St. Lucia

Type of Project:

MSP

GEF Agency(ies):

World Bank

GEF Agency Project ID:

P179519

Project Executing Entity(s):

Department of Infrastructure, Ports and Transport

Project Executing Type:

Government

GEF Focal Area (s):

Climate Change

Submission Date:

5/9/2024

Type of Trust Fund:

GET

Project Duration (Months):

78

GEF Project Grant: (a)

1,791,900.00

GEF Project Non-Grant: (b)

0.00

Agency Fee(s) Grant: (c)

170,230.00

Agency Fee(s) Non-Grant (d)

0.00

Total GEF Financing: (a+b+c+d)

1,962,130.00

Total Co-financing

30,000,000.00

PPG Amount: (e)

0.00

PPG Agency Fee(s): (f)

0.00

PPG total amount: (e+f)

0.00

Total GEF Resources: (a+b+c+d+e+f)

1,962,130.00

Project Tags

CBIT: No NGI: No SGP: No Innovation: Yes

Project Sector (CCM Only):

Energy Efficiency

Taxonomy:

Chemicals and Waste, Focal Areas, Climate Change Mitigation, Climate Change, Energy Efficiency, Renewable Energy, Climate Change Adaptation, Climate resilience, Small Island Developing States, Waste Management, Influencing models, Strengthen institutional capacity and decision-making, Transform policy and regulatory environments, Demonstrate innovative approaches, Stakeholders, Local Communities, Beneficiaries, Private Sector, Individuals/Entrepreneurs, SMEs, Large corporations, Communications, Awareness Raising, Education, Public Campaigns, Civil Society, Type of Engagement, Information Dissemination, Consultation, Gender Equality, Gender results areas, Capacity Development, Participation and leadership, Access to benefits and services, Gender Mainstreaming, Sex-disaggregated indicators, Capacity, Knowledge and Research, Enabling Activities

Rio Markers

Climate Change Mitigation	Climate Change Adaptation	Biodiversity	Land Degradation
Principal Objective 2	Significant Objective 1	No Contribution 0	No Contribution 0

Project Summary

Provide a brief summary description of the project, including: (i) what is the problem and issues to be addressed? (ii) what are the project objectives, and if the project is intended to be transformative, how will this be achieved? (iii), how will this be achieved (approach to deliver on objectives), and (iv) what are the GEBs and/or adaptation benefits, and other key expected results. The purpose of the summary is to provide a short, coherent summary for readers. The explanation and justification of the project should be in section B “project description”. (max. 250 words, approximately 1/2 page)

Saint Lucia, like most Caribbean Island states, is highly dependent on imported fossil fuels for power generation, despite the availability of indigenous renewable energy (RE) resources, which leads to energy insecurity, high energy costs as well as high GHG emissions. Improvements in energy efficiency (EE) and an increased use of renewable energy are key elements in the planned least-cost expansion plan for power systems and GHG emission reductions, being a regional and national priority as stated in its NDC and the National Energy Policy. However, constraints for their development exist due to limited land availability for the implementation of large-scale photovoltaic (PV) systems, a lack of capacity from national utilities for sufficient renewable energy integration along with financial incentives to support solar generation systems, basic legal frameworks in place for investments in EE and RE, or a limited and fragmented regional market for EE and distributed RE equipment and related services.

This proposed project will co-finance activities in St. Lucia under a larger regional project (CEGEB project, P179519, US\$131.876M), which includes St. Lucia, Grenada, Guyana, the Organisation of Eastern Caribbean States (OECS) Commission, and the Caribbean Center for Renewable Energy and Energy Efficiency (CCREEE). This will be the first operation of a Series of Projects (SOPs) aiming to save energy and increase renewable energy supply for public buildings and facilities in Caribbean countries. CEGEB Project will support EE and Distributed PV (DPV) investments across these three countries, while addressing regulatory gaps in the national and regional regulations and building local capacity for planning and implementation of EE and RE investments. Furthermore, it will facilitate regional integration to help overcome some of the challenges faced by small economies, allowing countries to benefit from economies of scale and pooled resources and capacity.

This GEF grant would focus specifically in high-energy consuming and GHG emitting public facilities such as the water supply and treatment services in Saint Lucia. The water utility WASCO in St. Lucia accounts for about 3% of the country's total electricity consumption and 75% of the energy is used for water pumping. Improving water pumping systems and their efficiency will allow significant energy savings combined with

an increased on-site generation of renewable PV energy that will displace the use of diesel generated power from the grid. Overall, CEGEB will contribute to GHG emissions reduction, enhanced energy security, and increased resilience of energy supply against extreme climate conditions. As such, the CEGEB project will yield global environmental benefits (GEBs) through avoided GHG emission reductions resulting from EE and RE investments and provide both climate mitigation and adaptation (resilience) solutions to St. Lucia and the Caribbean region.

Project Description Overview

Project Objective

To save energy, increase the use of renewable energy in public buildings and facilities and enhance regulatory framework for investments in EE and RE in participating Caribbean countries

Project Components

1.a. Investments in EE measures and distributed renewable energy systems in the public water service

Component Type	Trust Fund
Investment	GET
GEF Project Financing (\$)	Co-financing (\$)
1,500,000.00	23,600,000.00

Outcome:

Reduced energy consumption and direct GHG emission reductions in water facilities

Output:

Equipment commissioned at selected sites

1.b. Assessment and design of EE measures and distributed renewable energy systems

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
150,000.00	1,700,000.00

Outcome:

Identification of potential for cost-effective EE and RE measures to be implemented in the water facilities

Output:

Investment grade audit reports and design specifications

2. Regulatory Framework Development

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
	1,000,000.00

Outcome:

Output:

3. Implementation support and capacity building

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
50,000.00	700,000.00

Outcome:

Staff and officials trained on EE and RE

Output:

Training material and workshop

M&E

Component Type	Trust Fund
	GET
GEF Project Financing (\$)	Co-financing (\$)
91,900.00	300,000.00

Outcome:

Output:

Component Balances

Project Components	GEF Project Financing (\$)	Co-financing (\$)
1.a. Investments in EE measures and distributed renewable energy systems in the public water service	1,500,000.00	23,600,000.00
1.b. Assessment and design of EE measures and distributed renewable energy systems	150,000.00	1,700,000.00
2. Regulatory Framework Development		1,000,000.00
3. Implementation support and capacity building	50,000.00	700,000.00
M&E	91,900.00	300,000.00
Subtotal	1,791,900.00	27,300,000.00
Project Management Cost		2,700,000.00
Total Project Cost (\$)	1,791,900.00	30,000,000.00

Please provide justification

The project is not seeking PCM from GEF.

PROJECT OUTLINE

A. PROJECT RATIONALE

Briefly describe the current situation: the global environmental problems and/or climate vulnerabilities that the project will address, the key elements of the system, and underlying drivers of environmental change in the project context, such as population growth, economic development, climate change, sociocultural and political factors, including conflicts, or technological changes. Describe the objective of the project, and the justification for it. (Approximately 3-5 pages) see guidance here

St. Lucia and other island countries in the Eastern Caribbean Region have economies that are highly vulnerable to changes in global commodities markets and their geographical location makes them prone to natural disasters. The small size of the countries in this region limits access to economies of scale, diversification, and the scope of international trade. Economic activities are concentrated in a few sectors, most notably tourism, which contributes over 40%, on average, to the gross domestic product (GDP) of the region and represents approximately 45% of total employment. Caribbean countries are highly exposed to recurrent extreme weather events such as hurricanes, floods, and rising sea levels, all of which

are exacerbated by climate change. Disasters from extreme weather are estimated to have cost the Eastern Caribbean countries an average of 3.6 percent of GDP between 1997 and 2016.

Saint Lucia's GDP growth is forecast to have been 3.6 percent in 2023, well above its pre-pandemic trend rate of 1.4 percent. The country's economy is gradually recovering, with tourist arrivals increasing by 79 percent between 2021 and 2022. They rose a further 11.5 percent in the first quarter of 2023 but were still 16 percent below the 2019 level. The economy is expected to recover to pre-pandemic growth levels in 2024. Debt fell from its pandemic peak of 95 percent of GDP to 74 percent in 2022 but is forecast to rise slightly by 2025, to 76.5 percent. Fostering a sustainable and inclusive economic recovery presents a significant challenge in the face of multiple risks, notably higher global food and energy prices and the need to maintain tight fiscal discipline if public debt is to be reduced.

Heavy dependence on imported fossil fuels despite the availability of indigenous renewable energy resources has threatened energy security and led to high electricity prices. About 96% of the power generation capacity in St. Lucia consists of diesel-fired power plants with only 4.5% coming from renewable energy. Due to heavy dependence on fossil fuels for power generation and the inability to take advantage of economies of scale because of the small market size of individual island states, electricity tariffs in Eastern Caribbean countries are among the highest in the world, fluctuating between US\$ 0.28-0.38 per kWh, corresponding to crude oil prices at around US\$66 to US\$100 per barrel.

St. Lucia, along with other countries in the region have committed to meeting substantial Nationally Determined Contributions (NDC) for transition toward a low-carbon economy but implementation progress has been slow. In 2021, St. Lucia published its updated NDC, targeting a seven percent reduction of GHG emissions relative to 2010 in the energy sector by 2030, above the two percent targeted in its first NDC submission. In 2023, the Government of St. Lucia approved the updated National Energy Policy and announced refined energy targets, setting targets for renewable energy and energy efficiency, including improving energy efficiency in the public sector. However, despite these promising commitments, results so far have been insignificant. Implementation by the government agencies has not been consistent or effective, and existing regulatory frameworks need strengthening to support the planned energy transition.

The country has basic legal frameworks in place for energy transition and continues to address regulatory gaps for investment in EE and RE. In St. Lucia, the electricity sector is regulated by the Electricity Act amended in 2016 and the National Utilities Regulatory Commission Act (NURC Act). The Electricity Supply (Amendment) Act of 2016 imposed a limit to the established monopoly of Saint Lucia Electricity Utility (LUCELEC) in generation to the production of electricity from fossil fuels only while retaining exclusivity for its transmission, distribution, and retail functions. Thus, the Amendment of 2016 created the opportunity for electricity generation from RE by independent power producers (IPPs) and enabled the establishment of a regulator - the National Utilities Regulatory Commission (NURC). The pilot Net Metering Program, launched in 2009 by LUCELEC, allows consumers to connect their DPV systems and sell extra electricity to the grid. However, the program establishes very limited DPV capacity, not exceeding 5 kW for residential and 25 kW for commercial customers. In 2021, a new Electricity Act and several secondary regulations were initiated to complete the sector legal framework and to scale up renewable energy generation. **The new act and regulations are scheduled for stakeholder consultation in late 2024 aiming at submission for approval by the Parliament in 2025.** Regarding EE, the government adopted the CARICOM Regional EE Building Code and established EE standards for LED and CFL bulbs, air conditioning units, refrigerators, etc., but enforcement is limited as the codes and standards are not compulsory.

Recent energy audits of public buildings and facilities in St. Lucia have indicated major benefits to investing in EE and RE. The results from the audits of 33 typical public buildings in St. Lucia conducted in 2022-2023 with support from the WB, indicate that investments in EE measures and distributed rooftop solar systems are economically viable. The combined payback period of EE measures with distributed solar

PV for some of surveyed buildings was estimated to be less than three years. EE interventions and DPV system are highly attractive in the short-to-medium term, given the limited land availability due to mountainous terrain for large-scale, centralized, solar-powered electricity generation. However, the constraints on the allowed capacity of DPV systems and tariff scheme need to be addressed to obtain the full benefits of such investment.

By investing in EE and DPV systems in public facilities, St. Lucia can lower electricity costs, enhance resilience of critical public services, and catalyze investments by private sector and households in these technologies through lowering regulatory barriers and expanding these markets. Public facilities typically represent 10 percent of the country's total electricity consumption. Yet, investment in EE and distributed solar PV systems for public facilities can have multiple benefits across all sectors. First, for the public sector, such investments can reduce electricity consumption and electricity bills, allowing the government to use the saving to address other urgent public needs which is particularly attractive at present given the fiscal constraints in most government budgets in the post-COVID period. Second, investment in EE and distributed solar systems can increase the resilience of electricity supply to critical public services in the event of grid outages due to natural hazards, provided that the installed PV systems are built with hurricane standards. Importantly, the project will address the existing regulatory barriers to DPVs and EE measures to all consumers in the country and contribute to capacity building of the national utility and its readiness to integrate Distributed Renewable Energy (DRE), which would spur such investments by commercial, industrial, and household consumers to increase the demand further. Together, EE and DPV measures will reduce consumption of imported fuel for electricity generation, which can also have a positive impact on the trade balance. Finally, by working together under a regional framework, the project would create economies of scale and reduce costs, bring-in new international service providers, create additional local and regional jobs for installation, operation and maintenance (O&M) services of EE and DPV systems; thus enhance the overall market for EE and solar PV equipment across the region.

GEF support will widen EE and DPV measures proposed under the WB CEGEB Project to the public water and sewerage services. The CEGEB Project provides financing for improving energy efficiency and installation of solar PV in public buildings alongside strengthening the institutional capacity and regulatory framework for EE and RE. The GEF support will allow the scope of activities to include the public water and sewerage utility and enhance the water supply security and reduce the climate and environmental impact from fossil fuel use in water treatment and supply. The Water and Sewerage Company Inc. (WASCO) is a Government of Saint Lucia executing agency mandated to provide drinking water and sewerage services and to support the operation and maintenance of the water infrastructure in Saint Lucia. Electricity consumption serving WASCO's operations represents a significant cost and currently accounts for approximately 20-25% of WASCO's total annual operational budget and about 3% of the country's total energy consumption. The water supply infrastructure on the island includes twenty-eight water intakes and the John Compton dam, over 800 km of water distribution pipelines and more than 70 pumping stations. A total of 26 water treatment facilities; and sewerage treatment network serving portions of Castries, Vieux-Fort, and Gros-Islet. About 75% of the electricity consumption is used for water pumping and significant energy and cost savings can be realized through improved energy efficiency and a considerable amount of electricity supply can be deferred to renewable energy by installation of solar PV generation at the facilities combined with appropriate energy storage technologies and water and energy management systems.

The proposed project can help to accelerate improvement in EE and RE public facilities in particular water supply and treatment services across the region and support the regional efforts and benefits of being part of a coordinated approach to address the common challenges Saint Lucia and other Caribbean countries are facing. It is also expected to stimulate development of the regional market, create local jobs, lower costs, and build capacity for EE and DRE equipment installation and services across Saint Lucia and the Caribbean region.

B. PROJECT DESCRIPTION

Project description

This section asks for a theory of change as part of a joined-up description of the project as a whole. The project description is expected to cover the key elements of good project design in an integrated way. It is also expected to meet the GEF's policy requirements on gender, stakeholders, private sector, and knowledge management and learning (see section D). This section should be a narrative that reads like a joined-up story and not independent elements that answer the guiding questions contained in the PIF guidance document. (Approximately 3-5 pages) see guidance here

The Project Development Objective of the CEGEB Project is to save energy, increase the use of renewable energy in public buildings and facilities, and enhance regulatory framework for investments in EE and RE in participating Caribbean countries.

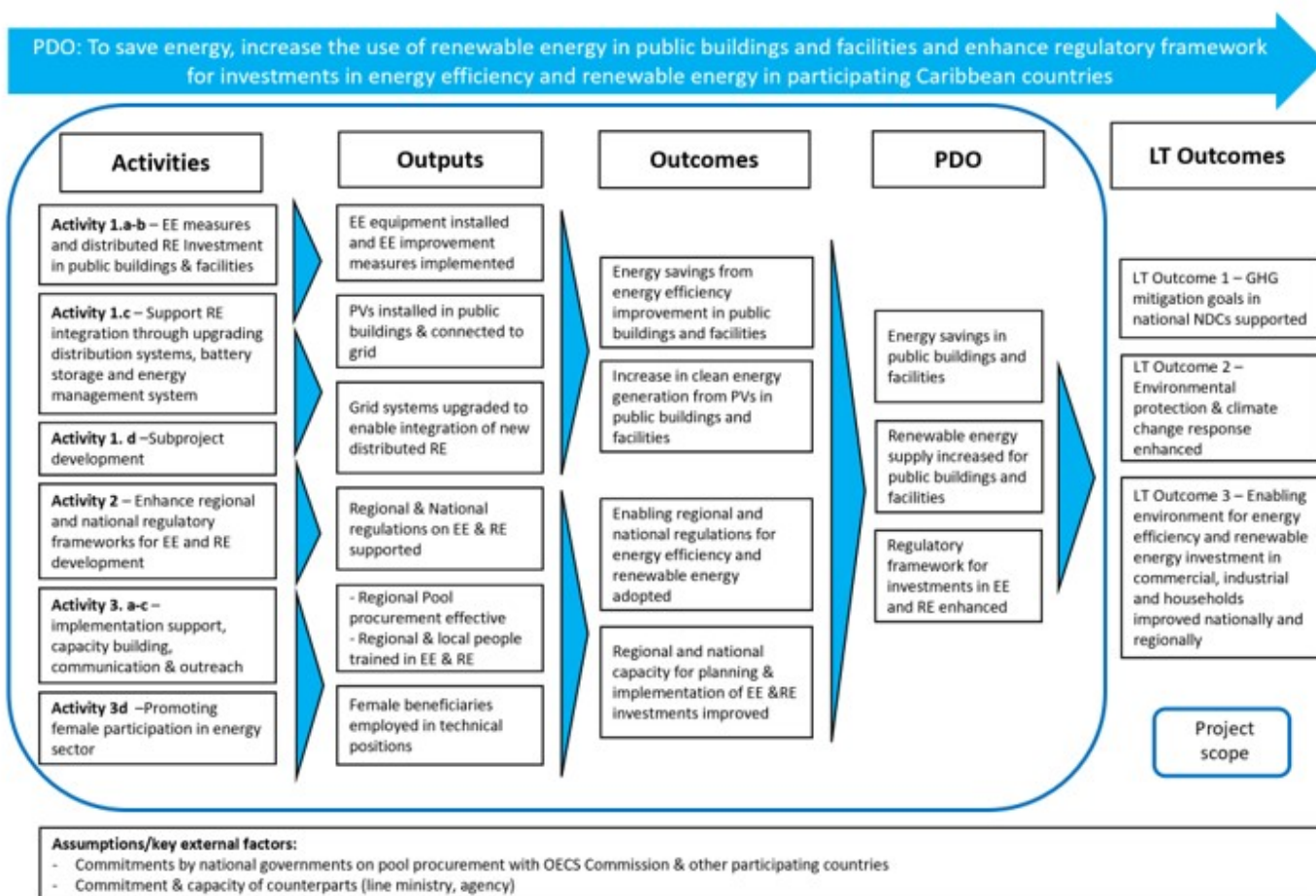
Specifically, the development objectives of the GEF support are to save energy and increase renewable energy integration in the water supply and treatment services in Saint Lucia. The project will improve the water services in St. Lucia by reducing the reliance on expensive and polluting imported fossil fuels through investments in energy efficiency measures in the water supply and treatment plants to reduce the overall energy consumption and implement distributed solar PV systems to provide clean and renewable energy supply to the facilities and the national grid.

Being part of the greater World Bank CEGEB project for the Caribbean region and OECS countries (Saint Lucia, Grenada, and Guyana) the GEF grant is supporting and contributing to the overall interventions, key results, and performance indicators of the regional project. In particular, the GEF support will contribute to activities 1a, b, d, and 3 (as per the Theory of Change included below) and the activities' outcomes by improving energy efficiency and increasing the supply of renewable energy in public buildings and facilities and reducing GHG emissions, while improving the enabling environment for EE and RE development solutions as well as climate mitigation and climate resilience.

The key results and performance indicators of the project consist of the following:

Key Results	Indicators
A. Energy savings in public buildings and facilities	Lifetime energy savings from EE improvements under the Project for each country and the region (GWh)
B. Increase the use of renewable energy in public buildings and facilities	RE capacity enabled (MW) Lifetime RE generation from PV systems installed in public buildings and facilities for each country and the region (GWh)
A&B	Lifetime GHG emissions reduced or avoided from EE and RE investments under the Project (tons of CO2 equivalent)
C.	Number of harmonized regional and national regulations, standards to promote EE and RE investment developed and adopted for implementation under the Project

Figure 1. Theory of Change



The specific areas of intervention for the GEF supported activities are improving energy efficiency and increasing the use of renewable energy in the water sector, resulting in avoided GHG emissions vis-à-vis Global Environmental Benefits (GEBs). The activities will include energy audits and assessment of the current energy demand and technologies in water supply and water treatment plants. With more than 70 pumping stations and 26 water treatment facilities, the national water utility WASCO has high potential for energy efficiency and studies have shown that there is a potential for energy efficiency in water pumping and PV generation through covering ponds or installation of innovative floating solar applications on the water treatment and retention ponds.

The GEF supported activities will be part of the overall components of the regional project in the following manner:

Component 1: Investment in EE measures and DRE systems in the public sector (estimated cost of US\$112.35 million with the financing consisting of US\$86 million loan from IDA, US\$1.65 million grant provided by the Global Environment Facility (GEF), US\$8 million loan from the Clean Technology Fund (CTF), US\$7.7 million loan from the Canadian Clean Energy and Forest Climate Facility (CCEFCF), and US\$3million grant and US\$6 million loan co-finance from the Caribbean Development Bank (CDB)). This component will finance investments in EE retrofits and the installation of new DRE systems in public buildings and other facilities. It will also help integrate these DRE systems into the national grids. The Project estimates to invest in about 500 buildings across three participating countries, including about 120 buildings in Saint Lucia.

The EE retrofits may include active and passive EE measures, improvements in building-control systems^[1] and safe disposal of used equipment and materials. The DRE systems to be installed will be on-site, rooftop solar PV, carport, or ground-mounted PV systems, as well as solar water heating systems. They may also include battery storage of energy for critical public buildings, to enhance their energy resilience and to support optimal delivery of solar electricity generated to the power grid. A limited amount of funds may be allocated to ancillary measures for upgrading existing buildings to enhance resilience to climate hazards such as hurricanes (in St. Lucia and Grenada), or floods (in Guyana), such as roof improvement, minor structural repairs, painting, rewiring, fire safety, improving access, etc., provided that the simple payback period of a subproject under an economic screening does not exceed the agreed maximum payback period. Grid integration support of DPVs investment may include technical assistance, capacity-building and necessary investment to enable efficient integration of these DPVs, reliable grid operation by the concerned electricity utilities, including upgrading of the distribution grid infrastructure, battery storage installation and the development of modern energy-management solutions and systems for the utilities.

Eligibility for financing. Subprojects eligibility criteria to be used at the screening stage include confirmation from the energy assessment/audits that the proposed measures would result in an estimated energy savings of 30 percent or more and a maximum payback period of 20 years for the overall investment. The maximum payback period of individual EE and on-site RE measures must not exceed their expected life. The screening criteria will include the level of annual energy consumption, the renewable energy generation potential, essential public service functions, their readiness for participation in the Project and others.

This component will also include technical assistance for identification, design, construction, and operation phases of the investment in building EE retrofit and DRE development, including assessment and screening of subproject candidates, energy investment grade audits; preparation of technical, legal, and economic feasibility studies for the investment and support for verifications/certifications, etc.

This component will consist of three similar subcomponents, one for each of the three countries. Each country subcomponent will contain a set of investments in EE measures and DRE systems in the public sector, including buildings and other facilities. The activities under each subcomponent may vary based on types of buildings and facilities selected for investment, as well as related sources of funding. Below are the activities under the subcomponent for Saint Lucia.

Sub-component 1.1: Saint Lucia investment in EE measures and DRE systems (estimated costs of US\$26.95 million with the financing consisting of US\$ 25.3 million loan from IDA and US\$1.65million grant from GEF). This subcomponent will include investments in EE retrofits and DRE systems and associated technical assistance for selected public buildings and facilities, including those in St. Lucia Water and Sewerage Company Inc (WASCO) and selected grid integration support of DPVs investment.

Specifically, the GEF grant will co-finance activities under this sub-component with focus to support WASCO related activities including: (i) investment in EE measures including improvements in control systems, (ii) investment in on-site PVs and solar water heater systems, (iii) improvements in building envelopes necessary for EE and PV systems to function safely, (iv) technical assistance for subproject preparation, (v) safe disposal of used equipment and materials, and (vi) other investments for resilient improvement of management and control of water distribution infrastructure.

Component 2: Regulatory Framework Development (estimated cost of US\$3.7million, including US\$3 million IDA loan, and US\$0.7 million IDA grant). This component will provide technical assistance to the participating countries and CCREEE for a set of activities to develop and strengthen the national and regional regulatory frameworks for scaling up investments in EE and RE. Support will be provided also at the regional level, for the harmonization, standardization, and development of tools and

protocols to facilitate EE and DRE market expansion and design of a regional waste management strategy and others.^[2]

Although the GEF support is not planned for this component, the findings and outcomes of the improvements in water services is likely to inform the development of EE and RE related regulations, guidelines, and templates, etc.

Component 3: Support to Pooled Procurement and Project Implementation, Capacity-Building and Gender Program (estimated cost of US\$15.82 million with the financing consisting of \$11 million loan and US\$3.3 million grant from IDA, US\$0.5 million loan from CTF, \$0.142 million grant from GEF, US\$0.5 million loan and US\$0.38 million grant from CCEFCF). For each individual country, this component includes the following support: support strengthening the capabilities of national project implementation units (PIUs); and capacity building of key public and private stakeholders. In addition, the component will support a program designed to raise the level of female employment as technical staff in Guyana's energy sector,^[4] providing financial incentives to study engineering or other subjects, undertake internships or other programs relevant to preparation for these jobs. The Gender program will be financed with a US\$0.38 million grant from CCEFCF. Furthermore, the component includes technical assistance and implementation support to the OECS Commission to undertake pool procurement service for investments under Component 1, to conduct capacity building programs, especially on procurement, and to build investment pipelines in the region for the next investment operations in the SoP. Specifically, the GEF support will (i) finance expert advice and assistance to the water utilities to improve energy efficiency in water pumping, integration of PV in their facilities and improved water management in their operation, (ii) support the project implementation, monitoring, verification, and certification, (iii) provide additional capacity building within technical knowledge of energy audits in water utilities and design and operation of EE and RE features in the facilities as well as general capacity building of the PIU in St. Lucia to manage EE and RE investment projects in the water sector and (iv) support knowledge sharing and capacity development events with the other participating countries to promote a regional collaboration and cooperation.

Mitigation and adaptation climate co-benefits. The Project, including GEF support, will bring mitigation and adaptation climate co-benefits, and contribute to substantial direct GHG emissions reduction in St. Lucia and in the Caribbean Region, both through reduced energy demand from public services, including water supply and sewage but also from increased RE generation for the public sector which is currently heavily dependent on fossil fuels. Installations of DPV plus battery storage systems for critical public facilities will also bring adaptation benefits increasing resilience of energy supply against extreme climate conditions, such as hurricanes, by reducing their reliance on grid supply. Overall, this project in Saint Lucia including the regional WB CEGEB project will directly contribute to Global Environmental Benefits (GEBs) through avoided GHG emissions resulting from both EE and RE interventions, which also directly aligns to the GEF-8 cycle's Strategy under the Climate Change Mitigation (CCM) Focal Area and broader Programming Directions.

The GEF grant will benefit directly to the regular users of the water service- the population of the country- and employees of public supply and sewage utility. The consumers will benefit from more efficient use of energy of public services and reduced water bills thanks to increased self-generation with DPV systems. The utility can use the savings from reduced energy consumption for other investments to improve quality of the services. Other beneficiaries will include professionals and skilled workers in engineering, equipment suppliers, installation, and other service providers for EE and RE services from increased demand for their goods and services in Saint Lucia and across the region.

As a part of a regional project, the economic benefits will extend to all participating countries and to the region. They will result from: (i) economies of scale in procurement and transaction costs, (ii) expansion

of the regional market for EE and solar PV equipment; (iii) creation of local jobs for installation, operation, and maintenance services of EE and DPV systems and (iii) development of a regional public good by knowledge-sharing in activities such as procurement, operations and maintenance, and capacity-building.

A wider group of institutions will benefit from positive environmental externalities. The governments, national utilities and regulators, water utilities, and regional organizations will benefit from capacity-building activities that the Project will support. Furthermore, energy service providers, private equipment suppliers, and construction firms will benefit from increased demand for their goods and services.

The private sector will be directly engaged in this Project through the procurement of services and goods for the project implementation. Local firms and suppliers will be encouraged to participate in the energy audits and renovation works of the public buildings and facilities and their skills and knowledge can be improved through participation in international consortia arrangements to provide state of the art services and goods to the beneficiaries. Civil society will be engaged through out-reach activities and events on energy efficiency and distributed renewable energy and as being part of the users of the buildings and facilities being renovated under the project.

The project will support activities aimed at reducing the gender gap in female employment for technical jobs in the energy sector. In Saint Lucia, there is an on-going gender program under the WB financed Renewable Energy Sector Development Project (RESDP, P161316) which is providing educational, training, and employment opportunities for women in the energy sector. As part of the RESDP Project, two cohorts of the scholarship program for women in engineering have successfully been implemented and completed. This initiative has supported 17 young women in the engineering field, equipping them with new skills applicable to the geothermal sector. The beneficiaries received full scholarships at the Sir Arthur Lewis Community College in St. Lucia, which included financial resources, hardware, and uniforms. Additionally, 18 percent of the beneficiaries chose to participate in internship and apprenticeship opportunities within companies that support the geothermal sector. Furthermore, the program organized a job fair to disseminate job opportunities in the geothermal sector and is set to launch its third cohort in the second semester of 2024. The proposed CEEGB project will complement this initiative through additional support focused in Guyana, supporting a gender program designed to raise the level of female employment as technical staff in Guyana's energy sector, providing financial incentives to study engineering or other STEM subjects, undertake internships or other programs relevant to preparation for these jobs. The gender program will be financed with a US\$0.38 million grant from CEEFCF to Guyana. Similar program is expected to be replicated in Grenada during the project implementation subject to availability of grant funds.

[1] Among active EE measures are the replacement of existing inefficient building equipment and appliances, or installation of new energy-efficient equipment and appliances, such as lighting systems, air-conditioning equipment, ceiling fans, and refrigerators or freezers using refrigerants with low or no global-warming potential (no-GWP), where possible. Passive EE measures may include energy-efficient windows, shading, wall and roof insulation, and cool surfaces etc. Improvements in control systems may include smart controls, sensors, and energy-management systems to meet EE objectives.

[2] Activities may include: (i) the development of EE building codes for new buildings, guidelines for EE building retrofits, EE and appliance Minimum Energy Performance Standards (MEPS), EE labeling, and existing buildings' benchmark regulations; (ii) creation of regional standardized tools for the implementation of EE retrofit projects in existing buildings, including but not limited to, energy-audit templates and guidelines, as well as support for Energy Savings Performance Contracting (ESPC), which will include preparation of tools and templates, sample contracts, and Energy Savings Measurement and Verification (M&V) protocol; (iii) support for the development of tariff regulations on distributed RE, such as net billing, grid codes and a standardized contract; and (iv) design of a regional waste management strategy and others.

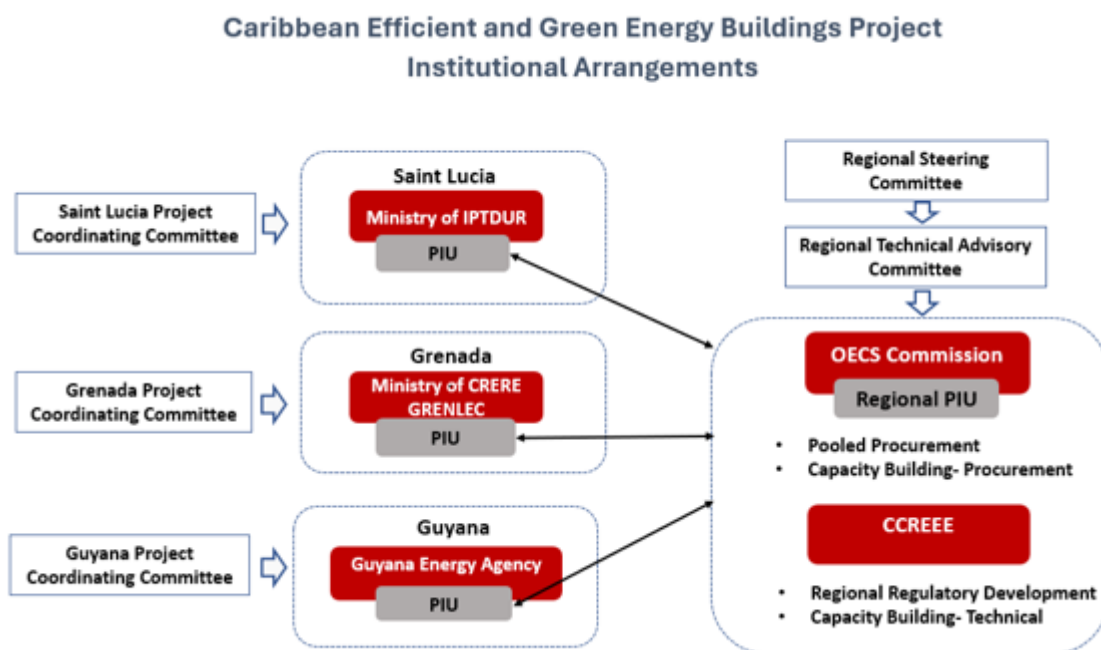
[4] A similar program is under implementation in Saint Lucia under the Renewable Energy Sector Development Project (P161316).

Institutional Arrangement and Coordination with Ongoing Initiatives and Project.

Please describe the Institutional Arrangements for the execution of this project, including financial management and procurement. If possible, please summarize the flow of funds (diagram), accountabilities for project management and financial reporting (organogram), including audit, and staffing plans. (max. 500 words, approximately 1 page)

The CEGEB Project will be implemented at the national and regional levels, under a regional coordination framework. The implementation arrangements are designed to ensure strong ownership of the PDO and the implementation of components by the participating countries, facilitate synergy and economies of scale, and strengthen coordination **among participating countries** at the regional level. At the national level, the line ministries and agencies responsible for the energy sector of the participating countries will be responsible for execution of the Project, working in close collaboration with the Ministry of Finance (MOF) and other ministries in the national cabinets for their respective project sub-components. Each participating country will have a PIU that will be responsible for planning and implementing all activities in the country and reporting to the responsible line ministry. Figure 1 below illustrates the overall project framework for implementation and governance.

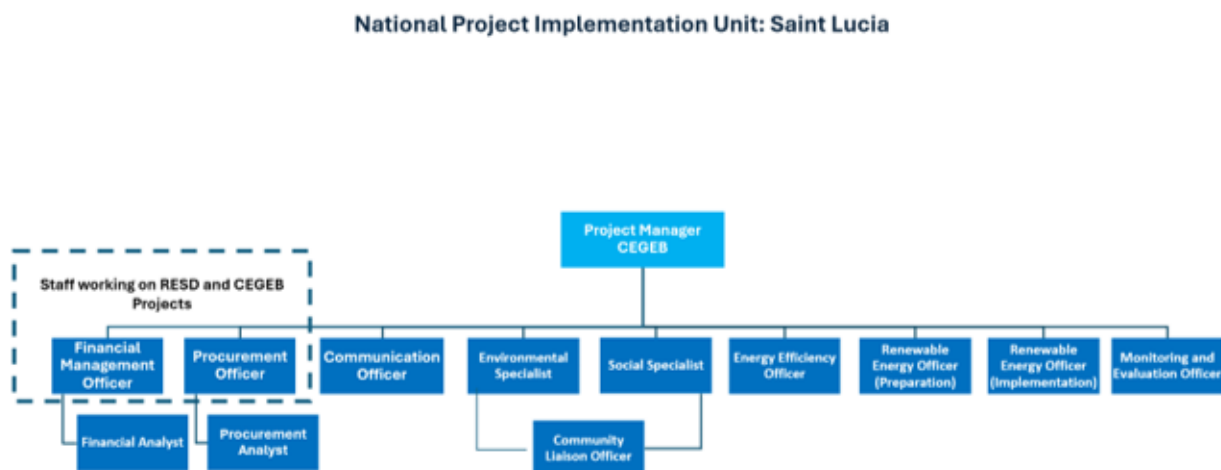
Figure 1. Regional Project Implementation Arrangement



For Saint Lucia, the **existing** Project Implementation Unit (PIU)^[1] under the Ministry of Infrastructure, Ports, Transport, Physical Development and Urban Renewable (MIPTDUR) **will be expanded and strengthened for the implementation of Saint Lucia's activities under the Project**. Reporting to the Permanent Secretary responsible for the Department of Infrastructure, Port and Transport (DIPT), a **new** Project Director **will be recruited for the CEGEB Project along with an additional team** of technical, procurement, financial management, environmental and social experts. A National Coordinating Committee (NCC) for the Project will be created to coordinate and oversee the project activities at country level. It will include representatives of MOF, other relevant ministries and entities, the National Utilities Regulatory Commission (NURC), etc.

The PIU will be responsible for implementing all project activities in Saint Lucia, including GEF financed activities. Figure 2 illustrates the PIU structure.

Figure 2. Saint Lucia Project Implementation Unit



[1] The existing PIU is for the WB financed Renewable Energy Sector Development Project (RESDP, P161316).

Will the GEF Agency play an execution role on this project?

If so, please describe that role here and the justification.

Also, please add a short explanation to describe cooperation with ongoing initiatives and projects, including potential for co-location and/or sharing of expertise/staffing (max. 500 words, approximately 1 page)

The PIU will build upon the existing PIU for RESDP which also reports to the DIPT, and get support from them especially in procurement, financial management, and environmental and social aspects.

Core Indicators

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO₂e (direct)	0	240546	0	0
Expected metric tons of CO₂e (indirect)	0	0	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO₂e (direct)				
Expected metric tons of CO₂e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO₂e (direct)		240,546		
Expected metric tons of CO₂e (indirect)				
Anticipated start year of accounting		2026		
Duration of accounting		20		

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)				

Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)
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Indicator 11 People benefiting from GEF-financed investments

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female		91,500		
Male		89,300		
Total	0	180,800	0	0

Explain the methodological approach and underlying logic to justify target levels for Core and Sub-Indicators (max. 250 words, approximately 1/2 page)

The lifetime GHG emissions avoided by replacing diesel or electricity consumption from the grid by EE measures and solar PV generation under the project and per country in tones CO₂e is monitored monthly and reported semi-annually by the PIU as part of the project monitoring and verification plan. As the data is monitored for the specific project investments it will be possible to also report the GHG emission reductions from water sector specific investments related to the GEF supported activities. Current target refers to the complete expected pipeline of investments that will be carried out in St. Lucia under the CEGEB Project.

Regarding people benefiting from GEF-financed investments, the whole population of St. Lucia is considered, since all will benefit from enhanced water supply security and reduced climate and environmental impact from fossil fuel use in water treatment and supply.

Key Risks

	Rating	Explanation of risk and mitigation measures
CONTEXT		
Climate	Moderate	Caribbean countries are highly exposed to recurrent extreme weather events such as hurricanes, floods, and rising sea levels, all of which are exacerbated by climate change. The Project's design will reduce potential impacts of identified climate and disaster risks (risks of flooding and hurricanes) on the Project's investments by including resilience and adaptation considerations, such as the requirement to sustain category 5 hurricanes for PV systems in Saint Lucia and Grenada, and the Project's soft components, which include eligibility criteria and screening to ensure no buildings structurally unsafe with high flood risks or low hurricane resistant are included in the Project. In addition, a limited amount of funds may be allocated to ancillary measures for upgrading existing buildings infrastructure to enhance resilience to climate hazards, such as roof improvement, rewiring, minor structural repairs, seismic safety, rewiring, fire safety, etc. Installations of DPV plus battery storage systems for critical public facilities, and upgrades on the grid for integration of RE, will also bring increase resilience of energy supply against extreme climate conditions, by reducing their reliance on grid supply.
Environmental and Social	Moderate	The Project is expected to have positive environmental and social impacts, as it will reduce energy consumption while increasing the energy resilience of public buildings and facilities. Except for the risk of forced labor in supply chain for solar panels, the main environmental and social impacts would be related primarily to construction activities, including the installation of solar panels on the roofs or parking areas of existing buildings or facilities. Therefore, the impacts are expected to be temporary, site specific, and manageable. Potential adverse environmental impacts may be caused by dust and noise; emissions from vehicles and machines; construction waste and potentially hazardous materials; disposal of old electrical appliances, asbestos-containing materials, lead-based paints. There is significant risk of forced labor in the global supply chain for solar panels and solar components, requiring specific mitigation measures. To mitigate against forced labor, the WB requires its borrowers to strengthen procurement processes to ensure that any solar panels and related components for solar energy production do not

		involve forced labor. Other social risks and impacts are associated with labor and working conditions, particularly the health and safety of workers and the surrounding community where the work is taking place. As most subprojects, including the proposed investment in WASCO are expected to be implemented within the existing footprints of public facilities, the project is not expected to have any land acquisition impacts. However, a Resettlement Framework (RF) has been prepared as a precautionary measure in case land acquisition and/or involuntary physical/ economic displacement is required in one or more subproject sites. The Project is not expected to have any significant impacts on vulnerable groups. The risks of sexual exploitation and abuse and sexual harassment have been assessed as low. Environmental and social Impacts are likely to be short-term and reversible and will be addressed through mitigation measures incorporated into the Environmental and Social Management Plan (ESMP) in line with good international industry practice (GIIP) delineated in the WB Group General Environmental, Health and Safety (EHS) Guidelines and Guideline for Electric Power Transmission and Distribution. Final drafts of the environmental and social instruments - Environmental and Social Impact Assessment (ESIA), Environmental and Social Management Plan (ESMP), Resettlement Framework (RF), Labor Management Procedures (LMP), and Stakeholder Engagement Plan (SEP) have also been prepared.
Political and Governance	Moderate	The government of St. Lucia has shown a strong commitment to improve EE and scale up DPVs in public facilities. These actions will help reduce public expenditures for electricity and enable use of the savings for other public needs. Furthermore, these activities are aligned with the country's national priorities and international commitments as reflected in their NDCs. Given the impact of the climate crisis on the country, the likelihood of withdrawing commitment to the Project is low.
INNOVATION		
Institutional and Policy	Moderate	St. Lucia has an acceptable legal framework for the electricity sector with pilot programs for energy audits and self-generators of electricity using RE under implementation, the results of which will be reviewed during the Project's preparation. However, there are gaps in regulations regarding DRE investment that may affect the optimal size of DPV systems to be installed under the Project and hence its impacts. The government and LUCELEC have been negotiating an increase in the capacity limit of DPV systems under the net metering program for public buildings. Delays in addressing these regulatory barriers may affect the Project's design, implementation pace, and results. Support for regulatory development in EE and DRE with assistance from the OECS Commission will be included in the Project. Some technical assistance, especially regarding the introduction of the net billing scheme, will be launched during the Project's preparation, in order to avoid potential delays during Project implementation.

Technological	Moderate	The Project will finance the implementation of technologies for improving EE and deploying renewable energy systems, such as solar PV systems, solar water heating, and battery storage. These technologies are proven and commercially available. Specific measures for the technologies will be determined based on professional energy audits and engineering designs. However, some of these technologies and related equipment, such as advanced control systems and some storage technologies, may not be readily available currently in the local market. Also, the country may have limited capacity to implement EE and RE technologies. These issues will be addressed during project implementation with support from international consultants having substantial experience with these technologies. .
Financial and Business Model	Moderate	The project will support improvement in operation and maintenance mechanism of EE and distributed RE investments in public building and facilities, including water utility for Saint Lucia through commitment on adequate allocation of funds from energy bill saving and contractual arrangement for the O&M services with private services providers.

EXECUTION

Capacity	Substantial	The MIPTPDUR in St. Lucia is implementing the WB RESDP and has a Project Implementation Unit (PIU) in place with relevant experience in key functions but lacking in technical experience with EE measures and DPV systems. Thus, this new PIU will be strengthened and expanded with new technical, fiduciary and environmental and social staff. established for the project but during the first year of implementation the existing PIU for RESDP will provide support on key activities until the new PIU is fully functional. The OECS Commission has adequate experience through several on-going World Bank-financed regional projects in other sectors but needs strengthening to undertake its responsibilities, especially the pool procurement. A PIU will also be established at the OECS commission with support from international consultants. The regional PIU will take the lead in joint procurement activities. Operational manuals for individual countries and OECS Commission are being prepared describing implementation arrangements, roles and responsibilities of staff, and the frequency of monitoring, reporting, and coordination. The CCREEE will be strengthened with additional staffs and external consultants to implement activities under Component 2. However, the risk remains substantial at least in the early state of the project due to the overall limited national and regional talent pools and challenges of the regional coordination.
Fiduciary	Substantial	Fiduciary risks are rated substantial due to procurement. The MIPTPDUR in St. Lucia has project experience with the ongoing RESDP. Its staff in charge of financial management and procurement under the existing PIU will support the fiduciary obligations of the Project during the first year of implementation. Similarly, the OECS Commission has experience with other WB financed projects with adequate financial management capacity. On the

		other hand, procurement is rated as substantial due mainly to (i) limited capacity in the PIUs to manage procurement activities; (ii) limited experience in pool procurement service by the OECS and the need to coordinate with participating countries; and (iii) limited pool of qualified bidders due to relatively small size of the market. To mitigate these risks, the regional PIU will be supported with experienced international consultants in pool procurement and provide support to the national PIUs on contract management. The development of standardized bidding documents, market awareness, and capacity building will be managed at the regional PIU.
Stakeholder	Moderate	While the Project has strong buy-in from the line ministries, suppliers and contractors in St. Lucia who will benefit from it, a strong buy-in from national utilities and regulators from outset of the Project is also necessary. Utilities may view the Project as having a negative effect on their business through reduction of electricity demand while increasing their costs, due to system adjustments required to absorb the distributed electricity to be produced under the Project. To mitigate this risk, the Project's design will involve early and strong engagement with utilities on this subject, along with provision of related technical assistance, and capacity-building supported by the Project. Timely support and engagement with regulators and utilities to upgrade regulations related to distributed generation will ensure that cost and benefits of the Project are fairly considered from the viewpoints of the distributed generators and the utilities involved. Capacity-building of the utilities to effectively integrate the variable RE will help to ensure the engagement of utilities necessary to achieve the Project's expected results. Overall, the stakeholder engagement plan (SEP) will include information campaigns necessary to raise stakeholder awareness and understanding EE measures and DPV systems.
Other	Low	Countries in the Caribbean region have lifted most of the Covid-19 related restrictions due to the low incidence rates. Therefore, project activities are not likely be affected by such restrictions, including activities during the first year of implementation, which is expected to be in late 2024-2025 when the Project's technical design and procurement will take place.
Overall Risk Rating	Substantial	This is mainly due to the substantial risk associated with sector strategies, implementation capability, and procurement. This underscores the importance of the technical assistance and training component in the Project. Risks related to governance, macroeconomic performance, technical design, financial management, and environmental and social impacts are all rated as moderate.

C. ALIGNMENT WITH GEF-8 PROGRAMMING STRATEGIES AND COUNTRY/REGIONAL PRIORITIES

Explain how the proposed interventions are aligned with GEF- 8 programming strategies and country and regional priorities, including how these country strategies and plans relate to the multilateral environmental agreements.

For projects aiming to generate biodiversity benefits (regardless of what the source of the resources is - i.e., BD, CC or LD), please identify which of the 23 targets of the Kunming-Montreal Global Biodiversity Framework the project contributes to and explain how.

Confirm if any country policies that might contradict with intended outcomes of the project have been identified, and how the project will address this. (max. 500 words, approximately 1 page)

The Proposed Project is aligned with GEF-8 Climate Change Focal Area Strategy, in particular with Objectives 1.1 (Accelerate the efficient use of energy and materials), by enhancing the efficient use of energy in the public sector through EE investments, and Objective 1.2 (Enable the transition to decarbonized power systems), by contributing to the decarbonization of the participating countries' power mix through distributed renewable energy in public buildings and facilities.

In particular, the proposed activities will reduce energy consumption and greenhouse gas emissions in the public facilities and the water sector by improving energy efficiency and implementing distributed renewable energy to displace fossil fuel use for power supply and decarbonization of the water sector. Further it will improve the economic performance and reduce waste in the water sector. The project activities are aligned with target areas under the GEF-8 Climate Change Mitigation (CCM) Focal Area Strategy by promoting innovation, technology development and transfer, and enabling policies for accelerating the efficient use of energy and materials and enabling the transition to renewable energy and decarbonizing the power system. The water sector is highly energy intensive for water pumping and treatment and with power generation mainly from diesel and other fossil fuels it leads to high GHG emissions. By improving the energy efficiency in water supply and treatment services through high-efficient pumps, system upgrading, and demand-driven control solutions, the energy intensity in Saint Lucia's power system can be significantly reduced. Combined with on-site and distributed power generation with renewable solar PV systems, a great share of the fossil fuel consumption can be displaced with significant GHG emission reductions and avoidance, as well as improvements to the overall reliability and cost effectiveness of the St. Lucia power system.

It also supports the integrated program on Sustainable Cities by implementing transformative and innovative interventions in the water supply and treatment infrastructure by providing environmental benefits such as reduced climate impact and pollution from energy consumption and better performance and operation of water supply and treatment services.

D. POLICY REQUIREMENTS

Gender Equality and Women's Empowerment:

We confirm that gender dimensions relevant to the project have been addressed during Project Preparation as per GEF Policy and are clearly articulated in the Project Description (Section B).

Yes

1) Does the project expect to include any gender-responsive-measures to address gender gaps or promote gender equality and women's empowerment?

Yes

If the project expects to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment, please indicate in which results area(s) the project is expected to contribute to gender equality:

Closing gender gaps in access to and control over natural resources;

Improving women's participation and decision-making; and/or

Yes

Generating socio-economic benefits or services for women.

2) Does the project's results framework or logical framework include gender-sensitive indicators?

Yes

Stakeholder Engagement

We confirm that key stakeholders were consulted during Project Preparation as required per GEF policy, their relevant roles to project outcomes has been clearly articulated in the Project Description (Section B) and that a Stakeholder Engagement Plan has been developed before CEO endorsement.

Yes

Select what role civil society will play in the project:

Consulted only; Yes

Member of Advisory Body; Contractor; Yes

Co-financier;

Member of project steering committee or equivalent decision-making body;

Executor or co-executor;

Other (Please explain)

Private Sector

Will there be private sector engagement in the project?

Yes

And if so, has its role been described and justified in the section B project description?

Yes

Environmental and Social Safeguard (ESS) Risks

We confirm that we have provided information regarding Environmental and Social risks associated with the proposed project or program, including risk screenings/ assessments and, if applicable, management plans or other measures to address identified risks and impacts (this information should be presented in Annex E).

Yes

Please provide overall Project/Program Risk Classification

Overall Project/Program Risk Classification

PIF	CEO Endorsement/Approval	MTR	TE
	Medium/Moderate		

E. OTHER REQUIREMENTS

Knowledge management

We confirm that an approach to Knowledge Management and Learning has been clearly described during Project Preparation in the Project Description and that these activities have been budgeted.

Yes

Benefits

Describe the socioeconomic benefits to be delivered by the project at the national and local levels, as appropriate and these benefits translate in supporting the achievement of global environmental benefits (GEF Trust Fund) or adaptation benefits (LDCF, SCCF). This section identifies the direct beneficiaries from the project.

The Project will benefit the regular users and employees of public buildings of ministries, other central and local government institutions, and public facilities. They will include the citizens of the participating countries who rely on services provided by retrofitted public buildings, such as school children, users of hospitals or clinics and critical services that will benefit from enhanced security against power outages. Taxpayers will also benefit, indirectly from the lower electricity bills of public services funded taxes. Ministries and local government offices can use the cost savings from reduced energy consumption for other public services. Additional beneficiaries will include professionals and skilled workers in engineering, equipment suppliers, installation, and other service providers for EE, RE services from increased demand for their goods and services across the region. Furthermore, this WB CEEB Regional Project will enable regional integration and multiply the benefits of a coordinated sustained development and maintenance of capacity at the regional level whilst giving individual countries the ability to pursue national-level activities best suited to their circumstances. Women seeking technical jobs in the energy sector will benefit too from support activities included in the Project designed to reduce the relatively low level of female employment in the energy sector's technical jobs.

Additional economic benefits will result from: (i) economies of scale in procurement and transaction costs, (ii) expansion of the regional market for EE and solar PV equipment; (iii) creation of local jobs for installation, operation, and maintenance services of EE and DPV systems and (iii) development of a regional public good by knowledge-sharing in activities such as procurement, operations and maintenance, and capacity-building.

The Project will support investments in EE and PV systems in public buildings in participating countries that will contribute to substantial GHG emission reductions, both through reduced energy demand from public customers but also from increased RE generation currently heavily dependent on fossil fuels. Installations of DPV plus battery storage systems for critical public facilities, and upgrades on the grid for integration of RE, will also bring adaptation benefits increasing resilience of energy supply against extreme climate conditions, such as hurricanes, by reducing their reliance on grid supply.

ANNEX A: FINANCING TABLES

GEF Financing Table

Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

GEF Agency	Trust Fund	Country/ Regional / Global	Focal Area	Programm ing of Funds	Grant / Non- Grant	GEF Project Grant(\$)	Agency Fee(\$)	Total GEF Financing (\$)
World Bank	GET	St. Lucia	Climate Change	CC STAR Allocation : CCM-1-1	Grant	358,300.00	34,000.00	392,300.00
World Bank	GET	St. Lucia	Climate Change	CC STAR Allocation : CCM-1-2	Grant	1,433,600.00	136,230.00	1,569,830.00
Total GEF Resources (\$)						1,791,900.00	170,230.00	1,962,130.00

Project Preparation Grant (PPG)

Is Project Preparation Grant requested?

false

PPG Amount (\$)

PPG Agency Fee (\$)

GEF Agency	Trust Fund	Country/ Regional / Global	Focal Area	Programming of Funds	PPG(\$)	Agency Fee(\$)	Total PPG Funding(\$)
Total PPG Amount (\$)					0.00	0.00	0.00

Please provide justification

Sources of Funds for Country Star Allocation

GEF Agency	Trust Fund	Country/	Focal Area	Sources of Funds	Total(\$)
------------	------------	----------	------------	------------------	-----------

		Regional/ Global			
World Bank	GET	St. Lucia	Climate Change	CC STAR Allocation	1,962,130.00
Total GEF Resources (\$)					1,962,130.00

Focal Area Elements

Programming Directions	Trust Fund	GEF Project Financing(\$)	Co-financing(\$)
CCM-1-1	GET	358,300.00	6,000,000.00
CCM-1-2	GET	1,433,600.00	24,000,000.00
Total Project Cost (\$)		1,791,900.00	30,000,000.00

Confirmed Co-financing for the project, by name and type

Please include evidence for each co-financing source for this project in the tab of the portal

Sources of Co-financing	Name of Co- financier	Type of Co- financing	Investment Mobilized	Amount(\$)
Donor Agency	World Bank IDA	Loans	Investment mobilized	30,000,000.00
Total Co-financing (\$)				30,000,000.00

Please describe the investment mobilized portion of the co-financing

A US\$30 million IDA loan to the Government of Saint Lucia will co-finance investment activities, regulatory support, capacity building and Project management activities in the country, within the CEGEB Project.

ANNEX B: ENDORSEMENTS

GEF Agency(ies) Certification

GEF Agency Type	Date	Project Contact Person	Phone	Email
Project Coordinator	4/10/2024	Anh Pham		npham@worldbank.org
GEF Agency Coordinator	11/4/2024	Elif Kiratli		ekiratli@worldbank.org

Record of Endorsement of GEF Operational Focal Point (s) on Behalf of the Government(s):

Name of GEF OFP	Position	Ministry	Date (Month, day, year)
Samanthia Justin	Chief Technical Officer	Department of Sustainable Development, Ministry of Education, Sustainable Development, Innovation, Science, Technology and Vocational Training	2/6/2024

ANNEX C: PROJECT RESULTS FRAMEWORK

Please indicate the page number in the Project Document where the project results and M&E frameworks can be found. Please also paste below the Project Results Framework from the Agency document.

The Project results framework is contained in Annex VII of the Project Appraisal Document (PAD, page 29). The M&E framework can be found in the Project Appraisal Document in section III.B (PAD, page 20).

VII. RESULTS FRAMEWORK AND MONITORING

PDO Indicators by PDO Outcomes

Baseline	Closing Period
Increase in the efficiency of energy use in public buildings	
Lifetime energy savings from energy efficiency improvements under the project (Gigawatt-hour (GWh))	
Dec/2023	Dec/2030
0	231.00

➤ Lifetime energy savings from EE measures in public buildings and facilities in Grenada under the project (GWh) (Gigawatt-hour (GWh))	
Dec/2023	Dec/2030
0	46.92
➤ Lifetime energy savings from EE measures in public buildings and facilities in Guyana under the project (GWh) (Gigawatt-hour (GWh))	
Dec/2023	Dec/2030
0	55.71
➤ Lifetime energy savings from EE measures in public buildings and facilities in Saint Lucia under the project (GWh) (Gigawatt-hour (GWh))	
Dec/2023	Dec/2030
0	128.36
Expansion of resilient and green energy supply for public buildings	
Lifetime renewable energy generation from PV systems in public buildings and facilities under the project (Gigawatt-hour (GWh))	
Dec/2023	Dec/2030
0	1535
➤ Lifetime clean-energy generation from PVs systems in public buildings in Grenada under the project (Gigawatt-hour (GWh))	
Dec/2023	Dec/2030
0	606.46
➤ Lifetime clean-energy generation from PVs systems in public buildings in Guyana under the project (Gigawatt-hour (GWh))	
Dec/2023	Dec/2030
0	644
➤ Lifetime clean-energy generation from PVs systems in public buildings in Saint Lucia under the project (Gigawatt-hour (GWh))	
Dec/2023	Dec/2030
0	284.8
Renewable energy capacity enabled (Megawatt) ^{CRI}	
Dec/2023	Dec/2030
0	51.06
For both PDO Outcomes	
Lifetime GHG emissions reduced or avoided from EE and RE investments under the project (tones of CO₂eq) (Text)	
Dec/2023	Dec/2030
0	1,248,000
➤ Lifetime GHG emissions reduced or avoided EE investments under the project (tones of CO ₂ eq) (Text)	
Dec/2023	Dec/2030
0	162,306
➤ Lifetime GHG emissions reduced or avoided RE investments under the project (tones of CO ₂ eq) (Text)	
Dec/2023	Dec/2030
0	1,085,696
➤ Lifetime GHG emissions reduced or avoided from EE and PV investments in Grenada (tones of CO ₂ eq) (Text)	
0	296,493
➤ Lifetime GHG emissions reduced or avoided from EE and PV investments in Guyana (tones of CO ₂ eq) (Text)	
0	476,411
➤ Lifetime GHG emissions reduced or avoided from EE and PV investments in Saint Lucia (tones of CO ₂ eq) (Text)	
0	280,952

Intermediate Indicators by Components

Baseline	Closing Period
Component 1: Promoting investment in EE measures and distributed SPV systems in the public sector	
Average annual RE production under the project (MWh/year)	
Dec/2023	Dec/2030
0	76,764
➤ Average annual RE production in Grenada under the project (MWh/year)	
Dec/2023	Dec/2030
0	30,323

➤ Average annual RE production in Guyana under the project (MWh/year)	
Dec/2023	Dec/2030
0	32,200
➤ Average annual RE production in Saint Lucia under the project (MWh/year)	
Dec/2023	Dec/2030
0	14,240
Number of buildings retrofitted with EE measures commissioned under the project (Number)	
Dec/2023	Dec/2030
0	474
➤ Number of buildings retrofitted with EE measures commissioned in Grenada under the project (Number)	
Dec/2023	Dec/2030
0	78
➤ Number of buildings retrofitted with EE measures commissioned in Guyana under the project (Number)	
Dec/2023	Dec/2030
0	255
➤ Number of buildings retrofitted with EE measures commissioned in Saint Lucia under the project (Number)	
Dec/2023	Dec/2030
0	141
Annual energy savings by installed EE measures under the project (MWh/year)	
Dec/2023	Dec/2030
0	23,099
➤ Annual energy savings by installed EE measures in Grenada under the project (MWh/year)	
Dec/2023	Dec/2030
0	4,692
➤ Annual energy savings by installed EE measures in Guyana under the project (MWh/year)	
Dec/2023	Dec/2031
0	5,571
➤ Annual energy savings by installed EE measures in Saint Lucia under the project (MWh/year)	
Dec/2023	Dec/2030
0	12,835
Annual CO2 reduction from EE and PV investments under the Project (Tones/year)	
Dec/2023	Dec/2030
0	70,515
➤ Annual CO2 reduction from EE and PV investment in Grenada under the project (Tones/year)	
Dec/2023	Dec/2030
0	25.025
➤ Annual CO2 reduction from EE and PV investment in Guyana under the project (Tones/year)	
Dec/2023	Dec/2030
0	26,605
➤ Annual CO2 reduction from EE and PV investment in Saint Lucia under the project (Tones/year)	
Dec/2023	Dec/2030
0	18,885
Capacity of battery storage installed for integration of renewable energy in Grenada (Megawatt hour(MWh))	
Dec/2023	Dec/2030
0	12
Capacity of renewable energy generation at Grenada International Airport (Megawatt)	
Dec/2023	Dec/2030
0	8
Component 2: Regulatory Framework Development	
Regulations to enable scaling up distributed renewable energy supported under the project (Number)	
Dec/2023	Dec/2030
0	2
Regulations to enable scaling up EE investments supported under the project (Number)	
Dec/2023	Dec/2030
0	2
Regional regulations and tools for EE and distributed RE supported under the project (Number)	
Dec/2023	Dec/2030
0	1
Regional Outreach/advocacy workshops/events for EE and RE (Number)	

Dec/2023	Dec/2030
0	3
Component 3: Capacity-Building, Gender, and Project Implementation Support	
Share of value of contracts awarded under regional procurement pool out of total contracts value under the Project (Percentage)	
Dec/2023	Dec/2030
0	70%
Number of people in the region benefitted from trainings under the project (Number)	
Dec/2023	Dec/2030
0	80
➤Percentage of female beneficiaries (Percentage)	
0	40%
Grenada: Satisfaction rate with the building renovation processes, including consultations, and results. (Percentage)	
Dec/2023	Dec/2030
0	80%
➤Of which female respondents (Percentage)	
0	60%
Guyana: Satisfaction rate with the building renovation processes, including consultations, and results. (Percentage)	
Dec/2023	Dec/2030
0	80%
➤Of which female respondents (Percentage)	
0	60%
Saint Lucia: Satisfaction rate with the building renovation processes, including consultations, and results. (Percentage)	
Dec/2023	Dec/2030
0	80%
➤Of which female respondents (Percentage)	
0	60%
Outreach/advocacy workshops/events to promote females in technical jobs in Guyana (Number)	
Dec/2023	Dec/2030
0	2
Scholarships provided for female students to pursue electrical, civil or mechanical engineering degrees in Guyana (Number)	
Dec/2023	Dec/2030
0	25
Apprenticeships/internship support provided for female students in STEM field in Guyana (Number)	
Dec/2023	Dec/2030
0	25
Female beneficiaries successfully employed in technical positions in the energy sector within the two-three years of completing the respective programs in Guyana (Percentage)	
Dec/2023	Dec/2030
0	60%
Grenada: Feedback received and implemented during stakeholder consultations and engagement during project implementation (Percentage)	
Dec/2023	Dec/2030
0	70%
➤of which female respondents (Percentage)	
Dec/2023	Dec/2030
0	60
Guyana: Feedback received and implemented during stakeholder consultations and engagement during project implementation (Percentage)	
Dec/2023	Dec/2030
0	70%
➤of which female respondents (Percentage)	
Dec/2023	Dec/2030
0	60
Saint Lucia: Feedback received and implemented during stakeholder consultations and engagement during project implementation (Percentage)	
Dec/2023	Dec/2030
0	70%
➤of which female respondents (Percentage)	
Dec/2023	Dec/2030
0	60

ANNEX D: STATUS OF UTILIZATION OF PROJECT PREPARATION GRANT (PPG)

Provide detailed funding amount of the PPG activities financing status in the table below:

Project Preparation Activities Implemented	GETF/LDCF/SCCF Amount (\$)		
	Budgeted Amount	Amount Spent To date	Amount Committed
Total	0.00	0.00	0.00

ANNEX E: PROJECT MAP AND COORDINATES

Please provide geo-referenced information and map where the project interventions will take place

Location Name	Latitude	Longitude	GeoName ID
Anse La Raye	13.9459	-61.0383	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Castries	14.0747	-60.9330	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Castries	13.9396	-60.9800	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Bois Jolie	13.9174	-60.8970	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Cas en Bas	14.0918	-60.9296	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Dennerly	13.9148	-60.8910	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Girard Cocoa	13.9987	-60.9507	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Anse La Raye	13.9007	-60.9879	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Babonneau	14.0087	-60.9415	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Mongiraud	14.0393	-60.9486	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Morne	14.0001	-61.0009	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Morne	14.0001	-61.0009	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Barre Denis	13.9681	-60.9929	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Fond Assau	13.9975	-60.9410	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Vanard	13.9355	-60.9747	

Location Description:

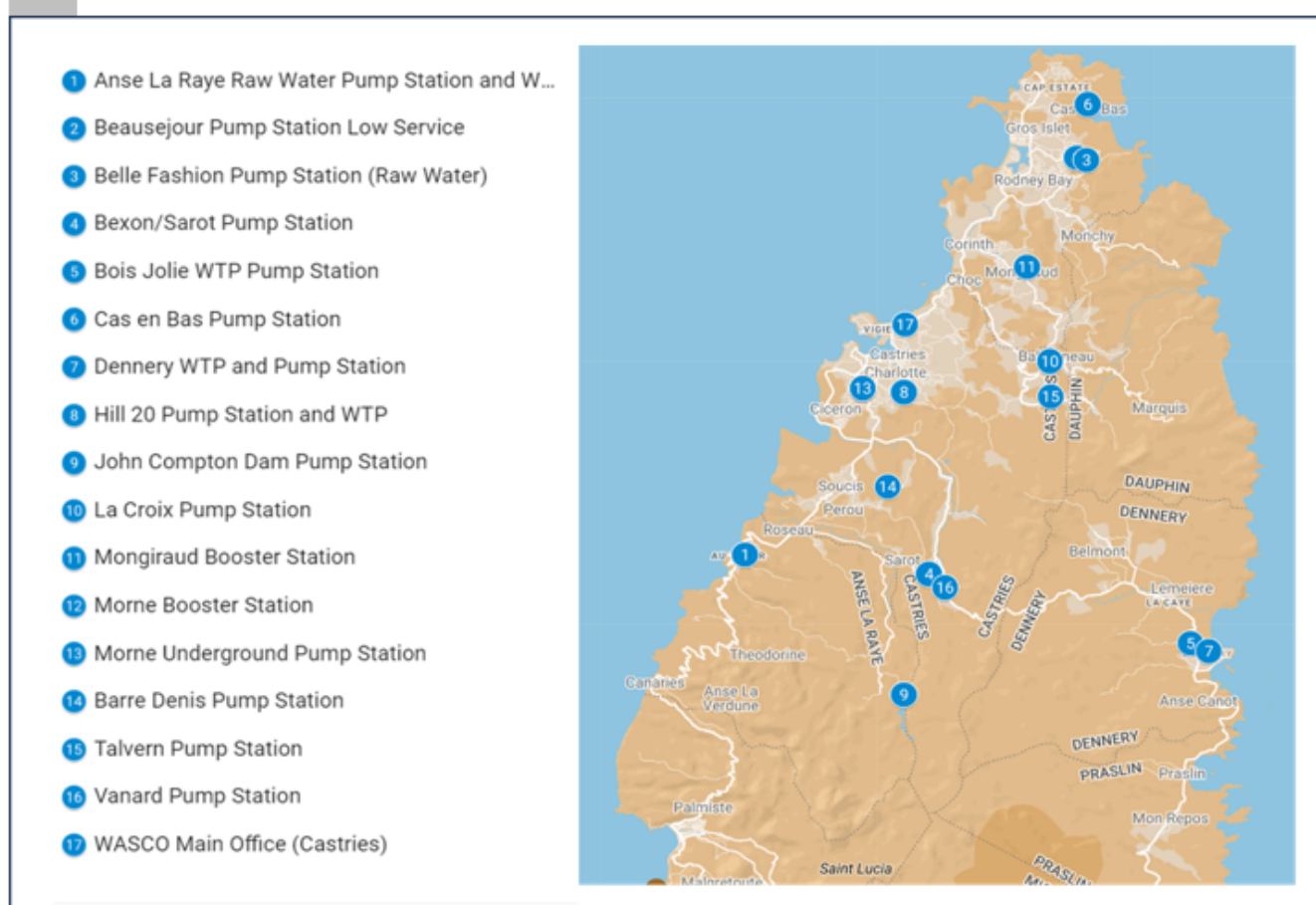
Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Castries	14.0208	-60.9877	

Location Description:

Activity Description:

Please provide any further geo-referenced information and map where project interventions are taking place as appropriate.



ANNEX F: ENVIRONMENTAL AND SOCIAL SAFEGUARDS SCREEN AND RATING

Attach agency safeguard screening/assessment report(s), including ratings of risk types and overall project/program risk classification as well as any management plans or measures to address identified risks and impacts.

Title

A-ESRS Caribbean Efficient and Green-Energy Buildings Project (P179519)_May 7 clean

ANNEX G: BUDGET TABLE

Please explain any aspects of the budget as needed here

The detailed procurement plan, including GEF activities, is being developed as part of the CEGEB Project preparation.

Expenditure Category	Detailed Description	Component (USDeq.)						Total (USDeq.)	Responsible Entity (Executing Entity receiving funds from the GEF Agency)[1]
		Component 1		Component 3	Sub-Total	M&E	PMC		
		Outcome 1.1	Outcome 1.2	Outcome 3.2					
EPC Contract	Investments in EE measures and PV systems	Reduced energy consumption and GHG emissions in water facilities			1,500,000	91,900	0	1,591,900	MIPTPDUR
International Consultants	Assessment and design of EE measures and DPV		Potential for cost-effective EE and RE measures in the water facilities		150,000	0	0	150,000	MIPTPDUR
Trainings, Workshops, Meetings	Capacity building			Staff and officials trained on EE and RE	50,000	0	0	50,000	MIPTPDUR
Grand Total					1,700,000	91,900		1,791,900	

The detailed procurement plan, including GEF activities, is being developed as part of the CEGEB Project preparation.

