INTER-AMERICAN DEVELOPMENT BANK
MULTILATERAL INVESTMENT FUND

GUYANA

IPED - GREEN FINANCE FOR RENEWABLE ENERGY AND ENERGY EFFICIENCY FOR MSMES

GY-T1150

ECOMICRO PROGRAM FACILITY (RG-O1649)

DOCUMENT FOR PROJECT APPROVAL

PROJECT DOCUMENT

This document was prepared by the project team comprised of: Team Leader, Gregory Watson (MIF/GRU), Design Team Leader, Ruth Houliston (GRU/CBA), Alejandro Escobar (MIF/MSN), Nayaatha Taitt (GRU/CBA), Vashtie Dookiesingh (GRU/CTT), Jaime Sologuren Blanco (INE/ENE), Anna Copplind (GCL/GCL), Mariana Beatriz Mendoza Centellas (ORP/GCM), Miguel Aldaz (ORP/PTR), Laura Natera (MIF/GRU), Jossette Hernandez (INO/PTM).

CONTENTS

PROJECT INFORMATION

PROJECT SUMMARY

IPED – Green Finance for Renewable Energy and Energy Efficiency for MSMEs
GY-T1150

Diminishing the share of fossil fuel energy and increasing the share of renewable and low-carbon energy sources in the energy portfolio is essential to mitigate climate change. In Guyana, where the primary source of energy is fossil fuels, high energy costs - coupled with unreliable supply and poor connectivity - increase business costs with negative implications for productivity and growth prospects of Micro, Small and Medium Enterprises (MSMEs) in the economy.

The objective of this EcoMicro Project is to finance Renewable Energy/Energy Efficient (RE/EE) technologies for MSMEs that complement, reduce the usage of, or substitute unreliable supplies of energy and displace energy from fossil fuels. The project will target MSMEs primarily in the Hospitality, Food and Beverage, Manufacturing, Retail Trade, and Services sectors to enable them to invest in RE/EE technologies. Deployment of RE/EE technology will reduce operational costs through energy savings, thereby increasing MSMEs' overall productivity. The project, along with targeted green finance products, will also implement a risk modeling framework to evaluate the impacts of climate change on the Financial Institution's (FI) loans portfolio and elaborate a greening policy to reduce the environmental impact at the agency's various locations. The project is innovative as it will introduce mitigation finance targeted to MSMEs in the urban, rural, and hinterland areas for the first time in Guyana.

The Executing Agency for this project is the Institute of Private Enterprise Development Limited (IPED), a lending agency for micro and small business entrepreneurs in Guyana. It is expected that the project will directly benefit 350 MSMEs in Pomeroon-Supenaam (Region 2), Demerara-Mahaica (Region 4), East Berbice-Corentyne (Region 6), and Upper Takutu-Essequibo (Region 9) of Guyana, across 8 of the 13 branches of IPED. The project will also benefit the 75 managerial and technical staff belonging to IPED, through training and capacity-building in areas relating to the key components of the project. The potential to scale this pilot across the remaining regions of Guyana is evident and will be guided by the development of a scale strategy post-pilot.

Together with other EcoMicro projects, the MIF expects to expand its knowledge of climate change resilience interventions through partnerships with FIs and other key actors in the ecosystem. This project will demonstrate how microfinance institutions can best support MSMEs to mitigate the impacts of climate change through market-based green finance solutions, enabling them to transition to more environmentally-sustainable energy production systems, building greater climate resilience in the long-run.

This project is well-aligned with the IDB Group's (IDBG) overall goals on addressing climate change and environmental sustainability as well as the IDBG Institutional Strategy (2010-2020) whose policy objective is to accelerate economic and social development in a sustainable way, through increasing productivity and innovation. The project is also aligned with the IDB's Country Strategy for Guyana 2017-2021 which focuses on achieving inclusive growth, and specifically, two of the four intervention areas: facilitating private sector development and delivering critical infrastructure. The project aims to accomplish its objective through: (i) design and implementation of green finance products; (ii) analysis of the vulnerability of the finance institution loan portfolio to climate change; (iii) elaboration of an institutional greening policy; and (iv) strategic knowledge management for public policies and private-sector scalability.

ANNEXES

ANNEX I	Results Matrix
ANNEX II	Draft Milestones Table

AVAILABLE IN THE TECHNICAL DOCUMENTS SECTION OF MIF PROJECT INFORMATION SYSTEM

ANNEX III	Diagnostic of Executing Agency Needs (DNA) [includes Integrity Due Diligence Analysis]
ANNEX IV	Reporting Requirements and Compliance with Milestones and Fiduciary Arrangements
ANNEX V	Procurement Plan (Draft)

ACRONYMS AND ABBREVIATIONS

CCB	Country Department Caribbean
CBA	Country Office in Barbados
CEO	Chief Executive Officer
CGY	Country Office in Guyana
CSD	Climate Change and Sustainability Division
DNA	Diagnostic of Executing Agency Needs
EA	Executing Agency
EE	Energy Efficiency
FI	Financial Institution
GAC	Global Affairs Canada
GDP	Gross Domestic Product
GHG	Greenhouse Gases
IDB	Inter-American Development Bank
IDBG	Inter-American Development Bank Group
IMF	International Monetary Fund
IPED	Institute of Private Enterprise Development Limited
LAC	Latin America and the Caribbean
MIF	Multilateral Investment Fund
MSME	Micro, Small and Medium Enterprise
NDF	Nordic Development Fund
PC	Project Coordinator
PEU	Project Executing Unit
PSG	Project Specific Grant
PSR	Project Status Report
PV	Photovoltaics
RE	Renewable Energy
SC	Steering Committee
SEP	Social Entrepreneurship Program
UNFCCC	United Nations Framework Convention on Climate Change

PROJECT INFORMATION

GUYANA

IPED – Green Finance for Renewable Energy and Energy Efficiency for MSMEs
GY-T1150

Country and Geographic Location:	Guyana: Pomeroon-Supenaam (Region 2), Demerara-Mahaica (Region 4), East Berbice-Corentyne (Region 6), and Upper Takutu-Essequibo (Region 9)		
Executing Agency:	Institute of Private Enterprise Development Limited (IPED)		
Focus Area:	Inclusive Cities		
Coordination with Other Donors/Bank Operations:	This project comprises part of RG-O1649, which expanded to the Caribbean the EcoMicro Program RG-M1205 / RG-X1131. It will be financed through resources from Global Affairs Canada, managed under RG-X1131 ATN/CN-15796-RG. The project will be executed in coordination with relevant activities of the IDB Climate Change and Sustainability Division (CSD) in the Caribbean Region. Potential synergies with IDB Invest will be explored for scale on completion of the pilot.		
Project Beneficiaries:	The project is expected to directly benefit 350 MSMEs and train 75 managerial and technical staff belonging to IPED.		
	Counterpart (cash and in-kind):	US$150,000	30%
	Co-financing from Global Affairs Canada (GAC):	US$350,000	70%
	TOTAL PROJECT BUDGET:	US$500,000	100%
Execution and Disbursement Period:	30 months of execution and 36 months of disbursement.		
Special Contractual Conditions:	Special conditions precedent to first disbursement will be: (i) appointment of the Project Manager; and (ii) execution of the contract with the EcoMicro pre-qualified consulting partner.		
Environmental and Social Impact Review	This operation was screened and classified as required by the IDB's safeguard policy (OP-703) on 24th May 2018. Given the limited impacts and risks, the proposed category for the project is C.		
Unit responsible for disbursements	COF Guyana. The project will be supervised by the MIF Program Team Leader supported by the EcoMicro Team within CCB/CBA, in coordination with the MIF Consultant and team in CCB/CGY.		

I. INTRODUCTION

1.1. **The EcoMicro Program:** The "Green Finance for MSMEs and Low-Income Households: The EcoMicro Program" (EcoMicro) is a US$ 17 million facility established to pilot green finance for Micro, Small and Medium Enterprises (MSMEs) including small farmers, and low-income households in Latin America and the Caribbean (LAC). The goal of the Program is to facilitate green finance as a means to increase access to Renewable Energy/Energy Efficiency (RE/EE) products, and to assist in adaptation to climate change. The purpose of the facility is to support Financial Institutions (FIs) in partnership with key actors in the broader ecosystem to provide new finance instruments to capitalize on opportunities in green financing, while adjusting their risk management models to climate change risk, and incorporating climate impact assessment into their internal policies and operations.

1.2. The Program is currently financed with funds from the Multilateral Investment Fund (MIF), co-financed by the Nordic Development Fund (NDF) and Global Affairs Canada (GAC) through Project Specific Grants (PSGs), and local counterpart funds. It is executed by the MIF. It was originally approved on September 20, 2011[1], and was subsequently amended[2] in 2015 to increase contributions from the MIF and NDF and to extend the execution term through December 2020. In 2016, GAC made an additional contribution to increase the outreach of the original program specifically in the Caribbean Region[3]. GAC-funded Caribbean Projects follow the prescribed modular approach of the EcoMicro Program, which is centered on the execution of three mutually reinforcing and interlocking components[4]. The EcoMicro modular approach was originally approved by the MIF Donor's Committee by Resolution MIF/DE-33/11 on September 20, 2011 (MIF/AT-1143-2) and forms the basis of the Administrative Agreement with GAC for the Caribbean EcoMicro Program, signed on March 21, 2016.

1.3. **Selection of Consulting Firm during Design Phase.** In accordance with *Section C: Execution and Administration of the Program* of the Donors Memorandum for the EcoMicro Program (RG-M1205), the MIF pre-qualified 18 consulting firms deemed eligible to participate in the Caribbean EcoMicro Program. The selection of a consulting partner by the Executing Agency (EA) to support the design and execution of project activities will occur following this competitive process, following project approval. The project, once in execution, will be governed by the Procurement Policies GN-2349-9 and GN-2350-9.

1.4. This is the **sixteenth EcoMicro project**, the first in Guyana, and the first to be funded by GAC through the Operation ATN/CN-15796-RG, Project: RG-X1131 EcoMicro2/EcoMicro3 – Green Finance for MSMEs and Low-Income Households.

1.5. **Delegation of Authority to MIF Management for Project Approvals:** The Donors delegated authority to the MIF General Manager for the approval of projects under the EcoMicro Program (MIF-AT-1143-2).

[1] Resolution MIF/DE-33/11 (MIF/AT-1143-2)

[2] Resolutions DE-89/15 and MIF/DE-38/15 (MIF/AT-2243-3)

[3] Resolutions DE-46/16 and MIF/DE-43/16 (MIF/AT-1143-4 and MIF/AT-1143-5, respectively)

[4] The three intervention areas approved by the MIF Donors Committee and GAC are: (i) design and implementation of the green finance product; (ii) assessment of the institution's loan portfolio vulnerability to climate change; and, (iii) greening the FI through development of environmental guidelines and policies.

II. THE PROBLEM

A. Problem Description

2.1. Guyana is located on the northern coast of South America with a population of 773,000 and a per capita Gross Domestic Product (GDP) of US$4,529 in 2017[5]. Through a recent oil discovery, the country is poised to emerge as a significant oil producer by the mid-2020s, with International Monetary Fund (IMF) GDP growth estimates as high as 38.5%[6]. Currently, the economy largely depends on 6 key commodities - bauxite, gold, rice, shrimp, sugar, and timber - which represent 90 % of total exports[7]. Owing to large increases in gold output, real economic activity expanded by 3.3% in 2016 and is expected to reach 3.7% in 2019[8].

2.2. Guyana's business climate was ranked 124th out of 190 countries on the World Bank's 2017 Doing Business Index. One of the lowest scores recorded is in access to finance, especially for small enterprises, which rated 4.1 out of 7. Only 27% of small firms have a line of credit with a FI versus 56% for large firms.

2.3. 90% of the Guyana's inhabitants occupy a narrow coastal plain, including the capital city of Georgetown and environs, which accounts for 10% of the total land area. The more remote hinterland areas are inhabited mainly by Amerindian communities, many of which have little access to modern energy services.

2.4. Approximately 82% of the population is connected to the grid, with the highest concentration in urban areas[9]. However, energy supply is often unstable and unreliable, with the country facing frequent blackouts. Many users have back-up generators to supplement energy supply as needed.

2.5. Historically, Guyana has depended on imported petroleum-based fuels as its primary source of energy. In 2015, 85% of its total 203MW of installed capacity was powered by fuel oil and diesel[10]. Between 2012 and 2016, Guyana imported roughly US$ 300-600 million per year in fossil fuels (mostly refined fuels), which accounted for 15-33% of imports and equal to 25-45% of the value of Guyana's exports[11]. Renewables, including biomass (bagasse) and hydroelectric plants, accounted for the remaining 15% of installed capacity.

2.6. Consequently, average retail electricity rates in Guyana are among the highest in Latin America and the Caribbean[12], at an average of US$0.30 per kWh. The cost of electricity is three times higher than in the continental United States and seven times higher than rates (subsidized) in Suriname[13]. This represents a high proportion of the monthly expenditures for households and businesses and frustrates private sector growth. Guyanese firms report high energy costs as a major obstacle to growth[14] that disproportionately impacts the productivity of MSMEs.

---

[5] World Bank Open Data
[6] International Monetary Fund, 2017. Article IV Consultation Staff Report
[7] Ibid. (IMF, 2017)
[8] Ibid. (IMF, 2017)
[9] Climatescope, 2017
[10] Ibid.
[11] Framework for Guyana Green State Development Strategy
[12] Climatescope, 2017
[13] Electricity rates published by Guyana Power & Light in 2016.
[14] As a percentage of sales, Compete Caribbean PROTEqIN, 2014.

2.7. The Government recognizes that the provision of affordable and reliable energy services is crucial to both the viability and productivity of the wider economy. Renewable and sustainable energy sources present an important opportunity to reduce dependence on fuel imports, to preserve natural patrimony, and to fulfill the country's commitment to global climate change mitigation.

2.8. In June 2009, the Government of Guyana launched a Low Carbon Development Strategy (2009-2015), which aimed to place Guyana's economy on a low carbon, sustainable development trajectory, while simultaneously combating climate change. In 2016, under the Paris Climate Change Agreement, the Government committed to transitioning to 100% renewable energy in the power sector by 2025. More recently, the Government is working on a Climate Resilience Strategy and Action Plan, and a Green State Development Strategy to set the roadmap for a green economy.

2.9. Accordingly, Guyana is considered a promising country for green finance, particularly for the deployment of RE/EE technologies. The most prevalent RE/EE technologies available in the market include: solar water heaters, solar photo voltaic (PV), solar pumps, solar cookers, solar dryers, wind mills and turbines, LED lighting, induction lighting, day lighting, inverter air conditioners, evaporative cooling, building insulation, exterior building shading, green roofs, solar films and heat recovery systems.

However, despite gains that would result from the deployment of RE/EE technologies, there is limited uptake by MSMEs owing to the following key barriers:

2.10. **Limited green finance options for MSMEs.** There are a few green finance options available on the market offered by local banks. These are mainly within the reach of larger commercial enterprises. No dedicated green finance product offerings currently exist for MSMEs in urban, rural or hinterland communities. MSMEs in general have difficulty accessing credit from local banks given strict financing requirements - including very short repayment terms, lengthy and demanding application processes and high collateral requirements. MSMEs in hinterland communities are further impacted, given that local banks offer limited services to remote communities[15].

2.11. **Limited capacity within the microfinance sector in green lending.** The Institute for Private Enterprise Development Limited (IPED), the oldest and largest micro-finance and SME finance institution in Guyana is committed to providing guidance, technical assistance, training and finance to MSMEs enabling them to build sustainable enterprises. While IPED recognizes the potential market and developmental opportunities that green finance represents, the organization lacks the technical capacity to undertake the requisite market analysis, identify appropriate technology solutions and develop the relevant financial terms of green loans. IPED recognizes that, in addition to the rollout of green finance products, special emphasis will be needed to address inertia and behavioral change to encourage adoption of RE/EE technologies[16] among MSMEs to make this a worthwhile venture in the medium and long term.

[15] IPED, the Executing Agency for this project, serves all 10 regions of the country through its head office and 13 branches. Part of IPED's broader mission is to reach underserved communities, including hinterland communities in the Upper Takutu-Essequibo (Region 9) area, included in this project.

[16] Market Study and Partner Scoping in the Caribbean - The EcoMicro Program, Econoler 2016.

2.12. **Supply-side disincentives in the broader RE/EE ecosystem.** The supply of RE/EE technologies in Guyana is dominated by a limited number of leading retailers. These players have multiple retail outlets in Georgetown and environs, as well as agents that distribute in rural communities. While several retailers offer financing catered to individual clients (e.g. hire purchase), MSMEs are typically perceived as high risk and rarely meet credit conditions.

2.13. **Partially favorable regulatory framework.** Under Guyana's Nationally Determined Contributions, legislation has been amended to remove import duty and tax barriers on the importation of renewable energy equipment, compact fluorescent lamps, and LED lamps to incentivize and motivate energy efficient behavior. However, gaps remain in the regulatory environment. At present, there is no net metering or net billing in place. If not addressed in the short-run, this could continue to serve as a disincentive for the uptake of RE technologies where returns on investment are greater if systems are grid-tied, enabling surplus energy generated to be resold to the grid. Presently, users are required to procure RE systems with battery storage capacity to supplement the grid or enable fully off-grid operations. This increases the upfront and operational costs of RE investments.

B. Project Beneficiaries

2.14. The direct beneficiaries of this project are **350 micro, small and medium enterprises** across 8 of IPED's 13 Branches[17] located in Pomeroon-Supenaam (Region 2), Demerara-Mahaica (Region 4), East Berbice-Corentyne (Region 6), and Upper Takutu-Essequibo (Region 9). These 8 branches account for 67% of their overall portfolio value (US$ 8.4 million) and 62% of their overall client base (2,348 clients).

2.15. The project will also benefit **75 managerial and technical staff** that belong to IPED, 41 of whom are women and 34 who are men. The team comprises 5 Senior Management Staff, 12 Operational Management Staff, 22 Loans Officers, and 25 Support Clerks. All 75 staff will receive technical training and awareness building in areas relating to the key components of the project: design and piloting of green finance, climate vulnerability and risk assessment, and institutional greening.

2.16. IPED will receive specialized technical assistance to design and pilot new green finance products. This will allow them to diversify their product offering, differentiate themselves from other FIs, and attract new clients. IPED is increasingly aware of the risks of climate change and its impact on the productivity of its MSME clients.

2.17. IPED will also benefit from institutional capacity building to analyze the vulnerability of its loan portfolio to climate change and incorporate climate risk management into future credit decisions, therefore reducing its portfolio at risk. In addition, the project will enable IPED to expand their already existing commitment to generate energy savings, reduce Greenhouse Gas (GHG) emissions and promote environmental sustainability through the implementation of institutional greening policies, the latter to be developed by the consulting partner.

[17] IPED's 13 Branch Offices are: Mabaruma, Port Kaituma (Region 1); **Charity, Cotton Field (Region 2);** Parika, (Region 3); **East Bank Demerara, East Coast Demerara (Region 4);** Rosignol (Region 5); **Port Mourant, Corriverton and New Amsterdam (Region 6); Lethem (Region 9);** Linden (Region 10).

III. THE INNOVATION PROPOSAL

A. Project Description

3.1. The objective of this project is to finance RE/EE technologies for MSMES that complement, reduce the usage of, or substitute unreliable supplies of energy and displace energy from fossil fuels. Deployment of RE/EE technology will reduce operational costs through energy savings thereby increasing MSMEs' overall productivity. This project will implement the prescribed modular approach of the EcoMicro Program aimed at building climate resilience of MSMEs and low-income households, through the execution of three mutually reinforcing and interlocking components: (i) design and implementation of the green finance product; (ii) assessment of the institution's loan portfolio vulnerability to climate change; and, (iii) greening the FI through development of environmental guidelines and policies.

3.2. **Mitigation finance.** The proposed solution centers on the creation and piloting of mitigation finance that will increase access to RE/EE technology products and services by MSMEs primarily in the following sectors: Hospitality, Food and Beverage; Manufacturing; Retail Trade; Services; and Other (including personal care: hair salons, barber shops; private education). Prioritizing clients within these sectors presents the greatest potential for MSMEs to lower their energy expenditure, thereby reducing operational costs and improving overall productivity. Notwithstanding, mitigation finance may also be relevant for a sub-set of clients categorized within IPED's broader agriculture and fisheries sectors (e.g. service providers and input suppliers).

3.3. At present, micro and small enterprise clients represent 92% of IPED's total portfolio. IPED will pilot mitigation finance for: (i) EE technology uptake by micro enterprise clients, with loans under US$ 3,750; and (ii) RE/EE technology uptake by small businesses, with loans of between US$ 3,750 and under US$ 25,000. In addition, mitigation finance will be tested in the context of medium businesses, with loans between US$ 25,000 and US$ 100,000.

3.4. **Gender.** IPED's overall portfolio includes more men than women, with 66% men and 34% women. However, the priority sectors targeted under this pilot - Hospitality, Food and Beverage; Manufacturing; Retail Trade; Services; and Other (including personal care: hair salons, barber shops; private education) - demonstrate a more even gender distribution, with just over half, 52%, women and 48% men.

3.5. **Climate Risk Assessment.** The project model will also build IPED's capacity to assess the vulnerability of its current portfolio to climate change, and integrate climate risk assessment into future credit decisions. Vulnerability analysis and risk assessment will be based on review of publicly available climate data sets[18]. The project will develop a technology-based risk assessment tool and incorporate this into IPED's existing loans review processes. In the medium term, this will position IPED to also incorporate adaptation finance that would enable smallholder farmer clients to invest in climate smart technologies, based on their particular climate risk, building their long-run resilience.

[18] Climate data sets include information available from Guyana's Office of Climate Change, United Nations Framework Convention on Climate Change (UNFCCC), Global Climate Scope and the World Bank Climate Change Knowledge Portal

This aligns well with the overall objective of the MIF Social Entrepreneurship Program (SEP) agreement with IPED *Promoting a Cluster Approach for Agricultural Diversification in Guyana* (GY-L1062), which aims to support the growth of an innovative contract farming model focused on non-traditional crops for specialty markets in the Caribbean.

3.6. **Institutional Greening.** IPED has already undertaken institutional greening activities at its Head Office, including an energy audit and implementation of initial recommendations. These investments have translated into a 25% (US $1000 per month) reduction in its energy expenditure. Aware of these initial benefits, this project will allow IPED to develop a greening policy for the overall institution, thereby enabling the realization of greater energy savings and the further reduction of its carbon footprint.

3.7. **Innovation.** This project is innovative as it will introduce mitigation finance targeted to MSMEs in the urban, rural, and hinterland areas for the first time in Guyana. Bridging the current financing gap and boosting the level of green investment will unlock the deployment of RE/EE technologies for a previously underserved and vulnerable segment of the private sector, enabling them to realize associated cost savings and productivity improvements. The EcoMicro modular approach is also unique as it incorporates three mutually reinforcing interlocking interventions: (i) design and implementation of the green finance product; (ii) assessment of the institution's loan portfolio vulnerability to climate change; and, (iii) greening the FI through development of environmental guidelines and policies.

3.8. **Knowledge.** The project will serve as an important case study, generating real evidence and best practices on how microfinance institutions can best support MSMEs to mitigate the impacts of climate change through market-based green finance solutions in a variety of socio-economic, sectoral and geographical contexts. As part of the EcoMicro Program facility, this project will benefit from knowledge derived from other EcoMicro projects communicated via periodic Newsletters, as well have access to multiple tools and knowledge products generated across all projects resident in the EcoMicro Library.

3.9. **Component I: Design & Implementation of Green Finance Products.** The objective of this component is to design and pilot a green financial product for RE/EE that will allow MSMEs to invest in mitigation technologies to complement, reduce the usage of, or substitute unreliable supplies of energy and displace energy from fossil fuels. The EA will mobilize its balance sheet to finance the pilot loans. This component will include: (i) Landscape Analysis and Market Study, including a Gender Analysis – using the Toolkit for Mainstreaming Gender in MIF Projects; (ii) Review of Technologies, Technology Providers and Strategic Alliances. This is intended to provide the EA with specific technology selection guidance/best practice manuals to help FIs evaluate technology providers; (iii) Design and implementation of Green Finance Product; (iv) Elaboration of Operational Guide and Internal Processes for the new green finance product; (v) Training of loans officers and other key staff; (vi) Beneficiary Outreach and Awareness Building among clients on the potential benefits of green finance; (vii) Interim and Final Evaluation of the performance of the green finance product, including implementation of improvements; and, (viii) Scale Strategy, including recommendations for scaling and leveraging of private/donor funds required to scale.

3.10. **Component II: Analyzing the Vulnerability of the Finance Institution Loan Portfolio to Climate Change.** Under this component, the EA's entire loan portfolio will be analyzed for vulnerability to climate change. The analysis will include a map of climate change risks (determined based on existing publicly available information and activities under the project), and their specific impact on IPED clients. This will inform the design of a climate risk assessment tool and technological systems/software modules (if necessary) to incorporate analysis of climate risks into future credit decisions. Relevant staff will be trained on use of the climate risk management tool and on monitoring climate change impact on future loans. The project will develop an accompanying climate risk policy with specific recommended actions to reduce IPED's exposure to climate change.

3.11. **Component III: Reducing the Environmental Impact of the Finance Institution.** In order to achieve a strong commitment to building resilience to climate change through green finance, this component will design an institutional greening policy and action plan for IPED that will: (i) foster "green" habits among employees and management teams in its Head Office and 13 branches; (ii) establish targets to reduce IPED's overall carbon footprint; and (iii) recommend investments to realize energy savings. The policy will incorporate a methodology to measure the institutional carbon footprint (GHG accounting methodology and a GHG baseline) and an energy efficiency baseline and improvements over time. IPED will implement the institutional greening policy recommendations in the Head Office in Georgetown and the following 3 branches: Cotton Field, Port Mourant, and Parika.

3.12. **Component IV: Knowledge Management and Communications.** The objective of this component is to capture, synthesize and disseminate the knowledge generated at the project level, including lessons learned, best practices, and key factors of success. One of the main components of the EcoMicro program is directly related to the systematization, documentation and dissemination of the knowledge generated by each of the individual projects under the facility. FIs will participate in knowledge sharing events with other EcoMicro project partners to share experiences and lessons learned. Knowledge products developed by the EA will be disseminated via the EcoMicro Program website and events, including project-specific sub-regional workshops. Developing successful initiatives will be crucial to creating demonstration effects for replication. In addition, this component will generate strategic knowledge for private and financial sector adoption to ensure scalability of this intervention.

3.13. **Plan for Scale:** All EcoMicro pilots that have concluded, have gone on to scale. Some institutions have continued to offer loans with their own resources while others have attracted private investment. The potential to scale this pilot will be assessed under the project, subsequently informing the development of a scale strategy post-pilot.

B. Project Results, Measurement, Monitoring and Evaluation

3.14. **Project Results.** By the end of this project, the following results are expected: (i) 350 MSMEs adopting RE/EE technologies; (ii) US$ 1 million in financing mobilized from IPED's balance sheet for RE/EE technologies and strategies accessed by MSME clients; (iii) 75 FI employees trained in RE/EE green product(s); (iv) 100% of FI's loan portfolio analyzed for vulnerability to climate change; (vi) 100% of credit decisions utilized climate risk management tool; (vii) 100% of facilities owned by the

FI have completed energy consumption diagnostics/carbon footprint analysis and are implementing recommendations; and (viii) EA has participated in knowledge sharing events to disseminate best practice and lessons learned.

3.15. **Measurement.** The EA will measure project results using their existing banking software and management information systems. The EA will ensure that data capture systems satisfy reporting requirements under the project and results matrix. Where necessary, additional monitoring and evaluation systems will be developed to generate data for the project. These results will be rolled-up at the programmatic level to allow for donor reporting, in accordance with donor requirements. Data captured will be broken down according to green finance product type (RE vs. EE), technology type, sector, loan type and value, branch/region, number of MSME clients by gender (e.g. women or men led-MSMEs), beneficiaries or staff trained, and outreach to stakeholders.

3.16. **Monitoring and Evaluation.** The baseline will be verified during the start of the project with inputs from key assessments to be conducted by the consulting partner, including the market study in Component 1, vulnerability analysis in Component 2 and the institutional greening diagnostic in Component 3. Baseline information will include key ex-ante data such as: (i) current energy costs of MSMEs accessing the green lending products; and (ii) GHG emissions and energy costs of IPED facilities. The EA/Consulting Partner will prepare intermediate progress reports and a Final Report that analyzes the results obtained across all components with audio-visual evidence of beneficiaries (both male and female), and technology installations. The Final Report will capture the overall experience and project results, including challenges, lessons learned and best practices. The final report will serve as a key input to the scale plan to be developed by the EA/Consulting Partner. IPED will report information on scale-up one year following completion of the project.

3.17. Within the IDB/MIF, the EcoMicro Project Team Leader (located at the Bank's Headquarters) and the EcoMicro Team (located in the Country Office in Barbados) will be responsible for monitoring and supervision of the project activities, ensuring compliance with contractual clauses and disbursements procedures.

3.18. **Reports.** The EA in close collaboration with the consulting partner will be responsible for presenting Project Status Reports (PSRs) within thirty (30) days after the end of each semester, or more frequently as determined by the MIF by providing at least sixty (60) days advance notice to the EA. The PSR will contain information on the progress of project execution, achievement of milestones, and completion of project objectives as stated in the results matrix and other operational tools. The PSR will also describe issues encountered during the execution and outline possible solutions. Within ninety (90) days after the end of the execution term, the EA/consulting partner will submit to the MIF a Final PSR, which will highlight results achieved, project sustainability, evaluation findings, and lessons learned. These reports are necessary to comply with the Program Evaluation Plan that requires annual reports to the Donor's Committee describing the progress, performance and all recorded results.

3.19. **Final Evaluation:** A final project evaluation will be carried out upon conclusion of the green finance pilot and will include the identification of key factors needed to build a sustainable business case for green finance to building resilience of MSMEs to climate change in Guyana. Furthermore, the evaluation will include the following aspects: (i) analysis of the experience, impact, lessons learned, and best practice derived under this project and post-pilot scale; (ii) details relating to the actual scale achieved post-pilot; and (iii) assessment of both enhanced engagements within and development across the broader RE/EE ecosystem. The MIF will commission the evaluation with resources from its contribution under the EcoMicro Program (RG-M1205). The evaluation of EcoMicro Projects may be undertaken individually or in a cluster with other projects.

IV. ALIGNMENT WITH IDB GROUP, SCALABILITY, AND RISKS

A. Alignment with IDB Group

4.1. This project is aligned with the IDBG Institutional Strategy (2010-2020) policy objective of accelerating economic and social development in a sustainable way, through increasing productivity and innovation. The project relates directly with the objective to support expansion of new and more sophisticated SMEs - through the facilitation of enhanced use of technology for energy generation - with the goal to stabilize climate change. It is also directly linked with climate change and environmental sustainability, a cross-cutting issue defined in the Update to the Institutional Strategy 2016-2019.

4.2. The project is aligned to the IDB Climate Change Action Plan, approved in December 2017, which calls for the development of innovative financial models and promotion of new technologies to address climate change in the private sector.

4.3. According to the 2015 Joint Report on Multilateral Development Banks' Climate Finance tracking, 100% of total funding for this project is invested in climate change mitigation/adaptation activities aimed at encouraging MSMEs to adopt climate change mitigation/adaptation technologies or practices. This contributes to the IDBG's climate finance goal of 30% of operational approvals by year's end 2020.

4.4. The project is also in line with IIC Business Plan 2017 - 2019, in particular, the goal to expand access to finance in partnership with FIs to increase investments in MSMEs and green companies, and its broader commitment to help clients build their climate resilience. The EcoMicro Program team within the MIF will work closely with IDB Invest to identify potential partnerships with successful pilot projects for further scale with financing from IDB Invest.

4.5. The project supports the overall objective of the IDB's Country Strategy for Guyana 2017-2021 to focus on achieving inclusive growth; and in particular, two of the four intervention areas: facilitating private sector development and delivering critical infrastructure in the energy sector. The project supports both objectives as it will enable MSMEs to adopt sustainable business practices through access to new green finance for RE/EE technologies.

4.6. The project complements the Government of Guyana's overall development strategy as outlined in their Framework for Green State Development Strategy, which is centered on a continued commitment to low-carbon growth, despite the recent discovery of oil. The key objectives of the strategy are to support: (i) diversifying the economic base, accessing new markets, and creating decent jobs for all; (ii) the transition to renewable energy and greater energy independence; and (iii) resilient infrastructure and spatial development.

4.7. The project will also complement the Bank's ongoing portfolio of operations in the energy sector[19], in particular, the Sustainable Energy Programme (GY-G1004), which aims *"to promote and support sustainable energy programs in Guyana, in order to contribute with country's energy security, energy access, reduction of fossil fuel dependence and provide additional opportunities to reduce greenhouse gas emissions"*. Under this operation, 10 hinterland communities have been identified as priority areas for the installation of mini solar PV Grids. Where communities coincide with the pilot area of the EcoMicro project, IPED will explore potential synergies during execution.

B. Scalability

4.8. Post-pilot, IPED will scale new green finance across its remaining 5 branches. This is consistent with its Strategic Plan 2016-2020 wherein a key objective is the doubling of its overall portfolio size from 4,000 to 8,000 clients. Nationwide roll-out of the green finance product represents a key opportunity to achieve this goal as it is expected to attract new MSME clients to the agency.

4.9. IPED's EcoMicro consulting partner will facilitate scale through: (i) completion of requisite analysis to support a scale strategy, including demand projections and financial analysis based on the results of the pilot; (ii) preparation and presentation of the scale strategy to the Board for approval; and (iii) training of all technical staff across all of the agency's branches to ensure readiness for scale.

4.10. During the project, IPED will develop a branding and marketing strategy for the new green finance products. The marketing strategy will incorporate events and PR materials to facilitate the national launch of the new green finance products.

4.11. Once the pilot has successfully concluded, the EcoMicro Program can support efforts to scale by linking the project partner with IDB Invest and other relevant micro-finance funds for potential financing for scale.

C. Project and Institutional Risks

4.12. **Limited appetite among MSMEs for green financing.** The project will address potential limited demand by devoting significant resources to an initial market study, review of technologies and technology suppliers and product design. This will help to determine local demand for green lending as well as to establish strategic alliances and partnerships with local suppliers and other key actors.

[19] Guyana Energy Sector Operations in implementation: GY-G1004 Sustainable Energy Programme; GY-L1041 and GY-X1002 Power Utility Upgrade Programme; GY-T1147 Tapping the Promised Land: Guyana's Future as an Oil Producer; and GYT1148 Guyana's Emerging Oil and Gas Sector: Getting Institutions Right.

4.13. The project will conduct direct outreach and training within beneficiary communities to stimulate demand for the new green finance products. In addition, continuous assessments and a final evaluation of the performance of the RE/EE loan products in the market, will be prepared, with a view to making necessary adjustments to scale post-pilot.

4.14. **Limited number of RE/EE technology suppliers.** The market is dominated by a limited number of key suppliers and their respective distribution agents. Given that new green finance will result in an increase in the demand for RE/EE technologies by MSMEs, the project will establish alliances between IPED and leading suppliers to ensure that this increasing demand can be met. In addition, the market study will assess the potential for IPED to encourage new RE/EE technology entrants and distributors into the local market, through tailored products to finance green suppliers.

4.15. **Gaps in the regulatory environment.** At present, there is no net metering or net-billing in place. If not addressed in the short-run, this could continue to disincentivize the uptake of RE technologies where returns on investment are greater in grid-tied systems, enabling surplus energy generated to be resold to the grid. Presently, users are required to procure RE systems with battery storage capacity to supplement the grid or to enable fully off-grid operations. This increases the upfront and operational costs of RE investments. The IDB, as a long-standing partner of the Government of Guyana in the energy sector, continues to provide technical cooperation support for enhancing the regulatory environment. It is envisaged that negotiations on a feed-in-tariff will be finalized in the coming years.

V. INSTRUMENT AND BUDGET PROPOSAL

5.1. The project has a total cost of US$500,000, of which US$ 350,000 (70%) will be provided by GAC, and US$150,000 (30%) by the counterpart consisting of cash and in-kind contributions. The project budget does not allocate resources for a Final Project Evaluation as this is already covered in the budget of the regional program. The expected execution period for this Project is 30 months and the expected disbursement period is 36 months. The project budget does not allocate resources for Contingencies, Audit and Evaluations, as these are already covered in the budget by the broader Program (RG-M1205/RG-X1131).

5.2. This project falls under the EcoMicro Program Facility (RG-O1649). The instrument to be used is non-reimbursable, given that most of the knowledge generated by this project is considered a public good.

5.3. Retroactive Recognition of Counterpart Funds: Not applicable.

Project Categories	GAC	Counterpart	Total
Component 1: Design & Implementation of Green Finance Products	162,500	15,000	177,500
Component 2: Analyzing the Vulnerability of the Loan Portfolio to Climate Change	120,000	10,000	130,000
Component 3: Reducing the Environmental Impact of the Finance Institution	22,500	20,000	42,500
Component 4: Knowledge Management and Communications Strategy	45,000	15,000	60,000
Project Administration	0	90,000	90,000
Grand Total	**350,000**	**150,000**	**500,000**
% of Financing	**70%**	**30%**	**100%**

* 50% of Counterpart will be in-cash and 50% in-kind

VI. EXECUTING AGENCY (EA) AND IMPLEMENTATION STRUCTURE

A. Executing Agency(s) Description

6.1. The EA for this project will be the **Institute for Private Enterprise Development Limited (IPED)**, a non-profit organization created in 1986, and monitored and assessed by the Bank of Guyana. IPED specializes in providing financial services to MSMEs. It is the oldest and largest microfinance and SME finance institution in Guyana. Their mission is to provide finance and advisory services to micro and small business entrepreneurs, enabling them to build sustainable enterprises.

6.2. As of March 2018, IPED serves 3,795 clients through its Head Office in Georgetown and 13 branches with coverage across the 10 regions of Guyana. Their total portfolio is valued at US$12.7 million. 92% of IPED's portfolio consists of micro and small business clients. Loan repayment durations range between six (6) months and ten (10) years, with an average loan size and repayment period of US$2,870 and 2 years, respectively.

6.3. IPED has a long-standing relationship with the IDB and MIF, starting in 1987 with a SEP project, a MIF Line of Activity in 2000 to expand lending to microenterprises, a mini-MIF project in 2008 to test an integrated farming model for poor farmers, and as one important beneficiary of the Carib-Cap I and II Projects receiving technical assistance to improve its processes and expand its services. In 2016, IPED entered into a new SEP agreement *Promoting a Cluster Approach for Agricultural Diversification in Guyana* (GY-L1062), with a loan of US$800,000 - supported by a complementary US$150,000 Technical Cooperation Agreement (GY-T1131). The objective of this project is to support the growth of an innovative contract farming model focused on non-traditional crops for specialty markets in the Caribbean.

6.4. With over 30 years of experience in the microfinance sector and their wide branch network across urban, rural and hinterland communities, IPED is a strong local partner for EcoMicro, with the capacity to significantly scale green finance post-pilot.

B. Implementation Structure and Mechanism

6.5. IPED's Chief Executive Officer (CEO) will have overall responsibility for the oversight of this project, including final approval of key deliverables by the consulting partner. As part of the necessary structure to execute project activities and manage project resources effectively and efficiently the CEO will appoint a Project Coordinator (PC) with responsibility for the day-to-day management and coordination of activities. The PC shall report to a Steering Committee (SC), chaired by the CEO, and established specifically to provide oversight of this project. Members of the SC will be appointed by the CEO from IPED's Executive Management Team and will include the Divisional Credit Managers who have responsibility for the management of the Branches involved in the pilot.

6.6. The PC will ensure effective coordination of all logistics as well as overall project administration and record keeping. The PC with support from the consulting partner, will have responsibility for the preparation of all reporting requirements, including bi-annual PSRs that will provide progress on project implementation to the MIF. The PC will be based at IPED's Head Office in Georgetown.

6.7. The PC will be responsible for the overall supervision and management of consulting partner contract, including approval of mission dates, events/workshops, trainings, scheduling of deliverables, coordination with individual team members, preparation of field logistics, facilitation of engagement with local stakeholders, mobilization of counterpart resources and facilities to support contract execution. The PC will review and ensure quality control of all reports and deliverables prior to submission to the CEO. The CEO will have responsibility for approval of all final deliverables/reports.

6.8. The PC will report directly to the CEO and to regular meetings of the wider Steering Committee. The PC will be responsible for the strategic planning and supervision of the project. Periodic reporting to the Board will be required during execution. Required reports, analysis and/or presentations will be facilitated, where relevant, by the consulting partner.

VII. COMPLIANCE WITH MILESTONES AND SPECIAL FIDUCIARY ARRANGEMENTS

7.1. **Disbursement by Results, Fiduciary Arrangements.** The EA will adhere to the standard MIF disbursement by results, Bank procurement policy[20] and financial management[21] arrangements as specified in Annex V and VI.

7.2. **Results-based disbursement.** The Project will be monitored by the MIF EcoMicro Program Team Leader, based in Washington D.C, with day-to-day support and coordination by the EcoMicro Team located in the Barbados Country Office. Monitoring will be undertaken in accordance with the performance and risk management policies (fulfilment of milestones) established by the MIF in April 2008 and knowledge sharing requirements of The EcoMicro Program. Project disbursements will be contingent upon verification of the achievement of

[20] IDB Procurement Policies

[21] Financial Management Operational Guidelines

milestones[22]. These milestones will be verified using their means of verification, which will be agreed upon between the EA and the MIF. Achievement of milestones does not exempt the EA from the responsibility of reaching the logical framework indicators and the project objectives.

7.3. **Disbursements:** Disbursements will be made in accordance with the Financial Management Guidelines for IDB-financed Projects (OP-273-6) October 14, 2014 or future updates. All disbursements under this project will be made on an **ex-ante basis** via the following methods: (i) Direct Payment to Supplier/Contractor, in particular, for payments to the EcoMicro consulting partner. This disbursement method may also apply for the cost of travel relating to participation in knowledge exchange events; or (ii) Reimbursement of Payments (should the EA upfront expenses for participation in knowledge sharing events. Disbursements will be made on request by the EA, having conducted quality control and acceptance of consulting firm deliverables and to continue normal project implementation and after it is confirmed that no milestones are pending at the time of the request.

7.4. **Financial Management and Supervision.** The EA will establish and be responsible for maintaining adequate accounts of its finances, internal controls, and project files according to the financial management policy of the IDB/MIF. The Diagnostic of Executing Agency Needs (DNA) generated a medium level of risk in financial management. The MIF will review all disbursements under this project on an ex-ante basis. All supporting documentation for disbursements will be supplied ex-ante with each disbursement request, with the MIF review conducted 100% on an ex-ante basis.

7.5. **Ex-Post Reviews and Financial Statements:** The MIF may contract independent auditors to carry out ex-post fiduciary reviews of this project. Ex-post fiduciary reviews may include a review fiduciary records relating to both project and also counterpart funds. Given that 100% of the disbursements will be reviewed on an **ex-ante basis** (as defined in 7.3 above), the EA is not required to prepare annual or final Financial Statements for this project.

7.6. The **first disbursement** (Milestone 0) will be made when the operation is approved. Approval will be granted once the MIF General Manager signs the contract and upon fulfilment of the following conditions in addition to those set by the Bank's agreement: (i) appointment of the Project Coordinator; and (ii) presentation of a signed contract with the EcoMicro selected consulting partner. *In the event that milestones are not reached, the MIF and the EA will assess the severity of the situation and take appropriate measures to ensure that this does not have an impact on project implementation and/or achievement of the objectives.*

7.7. **Subsequent disbursements** will be made in accordance with Bank financial management guidelines[23], and in accordance with (i) the payment schedule in the executed contract with the EcoMicro consulting partner; and (ii) the schedule of knowledge sharing events.

---

[22] Milestones are activities or outputs critical to achieving the development objectives and must be determined jointly by the executing agency and the MIF. They may be revised and reprogrammed during the project implementation. The executing agency may also request that the Bank modifies the milestones with a limit of two times and provided that the corresponding deadlines have not expired. Fulfilment of milestones does not relieve the EA of the responsibilities to meet the indicators set forth in the Logical Framework.

[23] Link to the document Financial Management Operational Guidelines

7.8. **Procurement.** In accordance with paragraphs 5.4 - 5.8 of the Donors Memorandum for The EcoMicro *Program* (RG-M1205[24]), the EA will execute one main procurement under this project, the selection of their EcoMicro consulting partner. This selection will be from a pool of consulting firms that have been pre-qualified via competitive process and are deemed eligible to participate in the EcoMicro Program. The IDB/MIF EcoMicro team will guide the EA to complete the final selection of the pre-qualified, eligible, consulting firm, after the MIF General Manager approves the project. The EA will make their final selection based on the firms technical ability to deliver specialized technical assistance to the EA in the context of their project, in: (i) design and piloting of a green finance product for the final beneficiaries of the project; (ii) analysis of the vulnerability to climate change of the loan portfolio of the EA; (iii) development and implementation of internal policies for energy savings; and (iv) knowledge management and communications to capture, synthesize and disseminate the knowledge generated at the project level.

7.9. For the procurement of all other goods and contracting of consulting services under this project, the EA will apply the IDB Policies for the Selection and Contracting of Consultants (GN-2350-9) and the Operational Guidelines for Technical Cooperation Projects (OP-639). The Diagnostic of Executing Agency Needs (DNA) generated a medium level of risk classification for procurement management. The MIF will review all procurements under this project on an **ex-ante basis**. Before commencement of project contracting and procurement, the EA must submit the project Procurement Plan for the IDB/MIF's approval which should be updated annually and when there are changes in the methods or goods or services to be procured.

VIII. INFORMATION DISCLOSURE AND INTELLECTUAL PROPERTY

8.1. **Information Disclosure.** This project is classified as public for the purpose of the Bank's information disclosure policy.

8.2. **Intellectual Property.** The knowledge products and materials produced with the funds disbursed under the project remain the property of the Inter-American Development Bank.

IX. RECOMMENDATION

9.1. The Chief of Unit, Grant's Unit, Maria Elena Nawar, recommends the approval of this operation by the MIF Manager, under the Delegation of Authority granted by the Donors Committee by Resolution MIF/DE-33/11 adopted on September 20th, 2011 and the use of resources from the GAC EcoMicro allocation to the EcoMicro Program, totaling up to US$350,000, in order to finance the corresponding project.

[24] MIF/AT-1143-2

X. APPROVAL

10.1. I hereby approve, according to the Delegation of Authority provided by the President of the Bank according with the facility approved by the Donors Committee by Resolution MIF/DE-33-11 adopted on September 20th, 2011 (MIF/AT-1143-2), up to US$350,000 for the financing of the project "EcoMicro - IPED Green Finance for Renewable Energy and Energy Efficiency for MSMEs" GY-T1150, the "Project," to be considered as part of the EcoMicro Facility.

10.2. That the resources of the project shall be utilized to finance the activities described and budgeted in this document chargeable to the resources of the MIF under the EcoMicro Program (RG-X1131) on a non-reimbursable basis.

10.3. The commitment and disbursement of these resources shall be made only by the Bank in US$. The same currency shall be used to stipulate the remuneration and payment to the consultant, expect in the case of local consultants working in their own Borrowing Member Countries who shall have their remuneration defined and paid in the currency of such country.

10.4. No resources of the Program shall be made available to cover amounts greater than the amount certified herein above for the implementation of this Technical Cooperation Brief.

Approved