

GUYANA
Project Profile (PP)

I. BASIC PROJECT DATA

Project name:	Sustainable Energy Program for Guyana		
Project number:	GY-G1004		
Project team:	Jesus Tejada (ENE/CEC) Team Leader and Christiaan Gischler (INE/ENE) Alternate Team Leader; Alejandro Melandri (INE/ENE); Carlos Echeverria (INE/ENE); Clevern Liddell (CCB/CGY); Roy Parahoo (PDP/CSU); David Ochoa (PDP/CGY); and Guillermo Eschoyez (LEG/SGO); under the supervision of Leandro Alves, Energy Division Chief (INE/ENE), and Sophie Makonnen, Representative in Guyana (CCB/CGY)		
Beneficiary:	Co-Operative Republic of Guyana (GoG)		
Executing agency:	Office of the Prime Minister (OPM)		
Amount and source:	IDB/GEF Fund ¹	US\$	5,000,000
	Total:	US\$	5,000,000
Execution timetable:	Execution		72 months
	Disbursement		78 months
Exceptions to Bank Policies and procedures:	None		
Environmental and social review:	Classification "C"		

II. GENERAL JUSTIFICATION AND OBJECTIVES

- 2.1 **Background.** Guyana is the largest country of the Caribbean Community and Common Market (CARICOM), occupying 216,000 square kilometers (km²). Despite its relatively large size, Guyana has a population of only 741,000 people according to its 2002 census. The population is concentrated around the capital city of Georgetown (coastline), while the interior rural areas are sparsely populated. Total electricity coverage in Guyana is about 81%, with electricity coverage over 90% coverage in the coastal zone where 90% of the population is concentrated. The electrification of rural communities in the vicinity of Georgetown (on the coast) is gradually implemented by the Guyana Power and Light Inc. (GPL), which is also the principal public supplier of electricity in Guyana. Nevertheless, hinterland electrification remains a challenge, as over 80% of the Amerindian population in Guyana lacks basic access to adequate electricity. Infrastructure is yet to be developed and energy access is still limited due to the distance from major load centers.

¹ See approved GEF [Project Identification Form \(PIF\)](#)

- 2.2 **Sector Knowledge.** The Inter-American Development Bank (IDB) has an extensive knowledge and previous experience working on investment projects in Guyana. Particularly, the IDB has experience in implementing similar initiatives in Guyana and other Caribbean countries. Since 1996, the IDB provided US\$45 million to support the “Electricity Sector Program”, which helped to improve the efficiency of the power sector and provided more reliable and affordable service to the consumers. In 2004, the IDB funded the US\$21 million “Un-served Areas Electrification Program (UAEP)”, a six-year project focused on: (i) infrastructure investment; (ii) hinterland project preparation; and (iii) institutional strengthening and capacity building.
- 2.3 Additionally, in 2008, the IDB supported a “Power Sector Support Program”, at the total cost of US\$12 million. The overall objective of this Program was to support the efforts of the Government of Guyana (GoG) to address energy sector reforms. The most recently approved operation, currently in execution, is the “Sustainable Operation of the Electricity Sector and Improved Quality of Service” aimed at improving the overall efficiency of the system by achieving a lower level of electricity losses. Having partnered with Guyana over the years, the IDB is highly cognizant of Guyana’s institutional, economic and financial challenges and continues to work on a strategic level with the GoG.
- 2.4 **The Problem. Oil Dependence** - Guyana is one of the countries with the highest electricity prices and the lowest energy mix diversification in the Latin America and the Caribbean (LAC) region. These problems are associated with the high dependence on imported fossil-fuels for electricity generation and other operational problems. Although the cost of generation has a direct correlation with the source of energy and the technology used, the price of electricity to the end-user is a variable that depends on sector authority approval. On the other hand, Guyana’s power generation consisting of 172-MegaWatts (MW) of thermal-based plants, is costly and over 30 years old. The low energy mix diversification in the country contributes to the high Grid Emissions Factor of 0.9438 tons of carbon dioxide (CO₂) equivalent per Megawatt-hour (MWh) generated.
- 2.5 Energy access - Electricity coverage in Guyana is 81% while electricity coverage is over 90% in the coastal zone, where 90% of the population is concentrated. The electrification of rural communities in the vicinity of Georgetown (on the coast) is gradually completed by GPL. Nevertheless, hinterland electrification remains a challenge. Over 80% of the Amerindian population in Guyana lack basic access to electricity. Infrastructure is yet to be developed and energy access is still limited due to the distance from major load centers. A few Amerindian communities receive intermittent diesel power electricity generation, rated in most cases at US\$0.40/kilowatt-hour (kWh), while other communities have recently benefitted from solar technology under the UAEP, a program executed by the Office of the Prime Minister (OPM) and GPL. Although Renewable Energy Technologies (RET), solar and small-hydro, have been evaluated as alternatives for expanding the electrification of the Hinterland, the sustainability of future electrification programs has to be carefully reviewed to increase the number of targeted

communities with the aim of providing the necessary energy for basic services and to maintain the operation and replacement of the technology when needed.

- 2.6 Some of the factors limiting the deployment of alternative energies in Guyana's energy matrix including rural electrification are: (i) lack of reliable historical data regarding Renewable Energy (RE) potential; (ii) low local technical skills in the design, installation, operation and maintenance of RE projects; (iii) lack of business models to promote the sustainability and replication of RE projects; and (iv) lack of adequate regulations to promote the deployment of on-grid RE projects. The transition to a more sustainable, efficient and clean energy matrix requires the participation and commitment of all stakeholders. Efforts in this direction have been initiated but remain scattered and are in need of guidance and stronger support.
- 2.7 **Solution.** In order to contribute to Guyana's energy sector solutions, this program proposes to support the implementation of selected projects, using solar PhotoVoltaic (PV) technologies, small-hydropower and the exploitation of wind energy resources to: (i) improve energy access in the Hinterlands; and (ii) demonstrate feasibility of on-grid RETs in the coastal zone (together Program). Actions included in the Program will contribute to the diversification of Guyana's electricity matrix, hence reducing oil dependence for electricity generation.
- 2.8 Even though the Program will help create the conditions for electricity costs to be reduced, the price of the service to the end-user depending on sector authority decision and approval is not expected to be addressed within the scope of the proposed technological solution of the Program.
- 2.9 The selection of projects will be based on GoG's priorities, cost-effectiveness, size of the initiative, status of progress of the initiative and existing parallel financing, among others. In addition, the Program will finance the design of a business model aimed at establishing a sustainable scheme for electrification in the Hinterland and coastal areas. Monitoring of the impact of the Program will be critical for the successful replication of the selected projects. The Multilateral Investment Fund's (MIF) parallel financing will contribute to the design of business models and preparation of baselines for the project's indicators. Increase in energy access will be one of the objectives of the Program, in line with GoG's commitment to the sustainable electrification of un-served areas and will contribute to close the gap in the electrification of isolated communities.
- 2.10 A review of the legal, institutional and regulatory aspects of the electricity sector will also be financed to identify the required changes in the regulatory framework fostering the use of RETs in Guyana, including identification of existing barriers that limit the interconnection of RE projects in the local grid. To propel the new culture toward the use of RETs among consumers, the Program will finance the continuation of education campaigns targeted at a wider and non-specialized audience that will facilitate know-how and acceptance among the population.
- 2.11 **The Country Strategy.** The current IDB Country Strategy for Guyana (GN-2503-1) has expired. A transition period is observed until the new strategy is expected to be approved by the IDB's Board in the 3rd quarter of 2012. The

Program is included in the 2012 Country Programming Document, identified as GY-T1084 due the original classification in OPUS. According to IDB procedures with the Global Environmental Facility (GEF), the project number for the Program was reclassified and a new number assigned as GY-G1004. The preparation of the Program is also cited in the 2012 Energy Sector Note prepared as part of the design of the new Country Strategy 2012-2016.

- 2.12 **Ninth General Capital Increase (GCI-9).** The Program is aligned with the IDB's Framework of a New Institutional Strategy under its sector priorities and preferential support to less-developed LAC countries. It will contribute to the goal of: (i) supporting development in small and vulnerable countries; and (ii) assisting borrowers in dealing with climate change, sustainable energy, including RE, and environmental sustainability.
- 2.13 **Coordination with other donors.** Multilateral development institutions present in Guyana were consulted and informed about the scope of the Program. The Program is consistent with projects currently being developed under the LCDS-GRIF and the United Nations Development Program (UNDP) as well as with resources provided by the European Union (EU), United States Agency for International Development (USAID) and other donors.

III. THE PROGRAM'S OBJECTIVES AND DESCRIPTION

- 3.1 **Program's goal and purpose.** The general objective of the Program is to promote and support sustainable energy projects in Guyana, in order to contribute to Guyana's energy security, energy access, reduction of fossil-fuel dependence and provide additional opportunities to reduce greenhouse gas emissions. The specific objectives are: (i) to support the use of solar, small-hydro and wind energy resources²; and (ii) create social awareness of sustainable energy through the following components:
- 3.2 **Component I. Support in the development of RE initiatives and support for the implementation of pilot projects.** The specific objective of Component I is to foster the transition to alternative RE and improve energy access in un-served and/or isolated communities with the following sub-components: (i) support to the design/installation/completion of RE pilot projects; (ii) revision of the legal, institutional and regulatory framework of the electricity sector affecting the deployment of non-conventional RE initiatives; and (iii) support the development of on-grid RE projects to reduce fossil-fuel dependency.
- 3.3 **Component II. Capacity Building in the Energy Sector and Dissemination.** Component II will focus on supporting the ongoing creation of adequate know-how, in order to guarantee the long-term sustainability of the implemented projects in RE. Furthermore, it will support the dissemination of RE and Energy Efficiency (EE) solutions among the population, in order to increase its public

² The sizes of RE projects targeted in this program are based on previous experiences, some financed by the IDB through the UAEP (e.g., solar PV panels rated between 65 to 250-kiloWatts (kW)) and others financed by the European Union (small-hydro of 300-kW). Wind power technology will be introduced for the first time in coastal zone (approximately 300-kW).

acceptance. Activities to be financed include: (i) training workshops in solar/wind installation and maintenance, as well as design, construction and operation of small hydropower facilities; and (ii) awareness campaigns on RE and EE.

IV. TECHNICAL ISSUES

- 4.1 Key stakeholders within the scope of the Program include: OPM, currently head of the energy sector; the Guyana Energy Agency (GEA), responsible for the preparation of the National Energy Efficiency Program; the Office of the President (OP), main coordinator of the national Low Carbon Development Strategy (LCDS); and the Ministry of Amerindian Affairs (MOAA) through the coordination of the OPM. The Guyana Environmental Protection Agency (EPA) as GEF operational focal point has endorsed³ the Program to support the adequate development and sustainable use of Guyana's natural resources.
- 4.2 Project implementation will entail two levels: (i) the strategic level; and (ii) the operational level. At the strategic level, the GoG will establish a high-level Project Steering Committee to provide guidance on strategic and policy issues related to the Program, including recommendations on the project's priorities and to monitor implementation progress according to the agreed schedule. The Project Steering Committee would be composed of the Ministry or entity responsible for the electricity sector (as Chairperson), representatives of the Ministry of Finance, the GEA, GPL, and the Project Manager as its Secretary. The Project Steering Committee will meet at least once each semester to discuss progress and address recommendations on main issues in order to move forward.
- 4.3 Executing Agency (EA). At the operational level, the OPM will be the executing agency. A Project Implementation Unit⁴ (PIU) will be created under the coordination of the EA. The PIU will work in close coordination with: (i) the MOAA to facilitate execution of the rural electrification project; and (ii) GPL to implement RE projects (on-grid projects). The PIU will also give technical support in the execution of the different activities of the Program.

V. SAFEGUARDS AND FIDUCIARY SCREENING

- 5.1 The Safeguard Policy Filter and Safeguard Screening Form, classifies this program as Category C, thus no Environmental and Social Strategy is required.
- 5.2 The Program's objectives will be complemented with other initiatives, including IDB's energy operations in execution by the GoG, similar projects in preparation or in execution with resources of the Guyana REDD+ Investment Fund (GRIF) and IDB's energy technical assistance in execution or in preparation.

VI. RESOURCES AND TIMETABLE

- 6.1 Annex IV sets forth the timeline for the preparation of the program, where the POD due date is expected to be September 28th, 2012 and presentation to the Board of Executive Directors is planned for the fourth quarter 2012.

³ See [Endorsement Letter from Operational Focal Point](#)

⁴ GEF will finance management cost that is solely linked to GEF financing of the project i.e. US\$220,000.

ANNEX I - CONFIDENTIAL

SAFEGUARD POLICY FILTER REPORT

This Report provides guidance for project teams on safeguard policy triggers and should be attached as an annex to the PP (or equivalent) together with the Safeguard Screening Form, and sent to ESR.

1. Save as a Word document. 2. Enter additional information in the spaces provided, where applicable. 3. Save new changes.

PROJECT DETAILS	IDB Sector	ENERGY
	Type of Operation	Other Lending or Financing Instrument
	Additional Operation Details	
	Investment Checklist	Generic Checklist
	Team Leader	Tejeda Ricardez, Jesus Alberto (JESUST@iadb.org)
	Project Title	Sustainable Energy Program for Guyana
	Project Number	GY-G1004
	Safeguard Screening Assessor(s)	Echeverría Echeverría, Carlos Bladimir (carlosec@IADB.ORG)
	Assessment Date	2012-05-02
	Additional Comments	

SAFEGUARD POLICY FILTER RESULTS	Type of Operation	Investment Grants	
	Safeguard Policy Items Identified (Yes)	Potential to negatively affect Indigenous People (also see Indigenous Peoples Policy.).	(B.01) Indigenous People Policy– OP-765
		Does this project offer opportunities for indigenous peoples through its project components?	(B.01) Indigenous People Policy– OP-765
		Activities to be financed in the project area are located within a geographical area or sector exposed to natural hazards (Type 1 Disaster Risk Scenario).	(B.01) Disaster Risk Management Policy– OP-704
		The Bank will make available to the public the relevant Project documents.	(B.01) Access to Information Policy– OP-102
		The operation is in compliance with environmental, specific women's rights, gender, and indigenous laws and regulations of the country where	(B.02)

		the operation is being implemented (including national obligations established under ratified Multilateral Environmental Agreements).	
		The operation (including associated facilities) is screened and classified according to their potential environmental impacts.	(B.03)
		The Bank will monitor the executing agency/borrower's compliance with all safeguard requirements stipulated in the loan agreement and project operating or credit regulations.	(B.07)
		Suitable safeguard provisions for procurement of goods and services in Bank financed projects may be incorporated into project-specific loan agreements, operating regulations and bidding documents, as appropriate, to ensure environmentally responsible procurement.	(B.17)
	Potential Safeguard Policy Items(?)	No potential issues identified	
	Recommended Action:	Operation has triggered 1 or more Policy Directives; please refer to appropriate Directive(s). Complete Project Classification Tool. Submit Safeguard Policy Filter Report, PP (or equivalent) and Safeguard Screening Form to ESR. The project triggered the Disaster Risk Management policy (OP-704). A more limited and specific Disaster Risk Assessment (DRA) may be required (see Directive A-2 of the DRM Policy OP-704). Please contact a Natural Disaster Specialist in VPS/ESG or INE/RND for guidance.	
	Additional Comments:		
ASSESSOR DETAILS	Name of person who completed screening:	Echeverría Echeverría, Carlos Bladimir (carlosec@IADB.ORG)	
	Title:		
	Date:	2012-05-02	

SAFEGUARD SCREENING FORM

This Report provides a summary of the project classification process and is consistent with Safeguard Screening Form requirements. The printed Report should be attached as an annex to the PP (or equivalent) and sent to ESR.

1. Save as a Word document. 2. Enter additional information in the spaces provided, where applicable. 3. Save new changes.

PROJECT DETAILS	IDB Sector	ENERGY
	Type of Operation	Other Lending or Financing Instrument
	Additional Operation Details	
	Country	GUYANA
	Project Status	
	Investment Checklist	Generic Checklist
	Team Leader	Tejeda Ricardez, Jesus Alberto (JESUST@iadb.org)
	Project Title	Sustainable Energy Program for Guyana
	Project Number	GY-G1004
	Safeguard Screening Assessor(s)	Echeverría Echeverría, Carlos Bladimir (carlosec@IADB.ORG)
	Assessment Date	2012-05-02
	Additional Comments	

PROJECT CLASSIFICATION SUMMARY	Project Category: C	Override Rating:	Override Justification:
	Conditions/ Recommendations	<ul style="list-style-type: none"> • No environmental assessment studies or consultations are required for Category "C" operations. • Some Category "C" operations may require specific safeguard or monitoring requirements (Policy Directive B.3). Where relevant, these operations will establish safeguard, or monitoring requirements to address environmental and other risks (social, disaster, cultural, health and safety etc.). • The Project Team must send the PP (or equivalent) containing the Environmental and Social Strategy (the requirements for an ESS are described in the Environment Policy Guideline: Directive B.3) as well as the Safeguard Policy Filter and Safeguard Screening Form Reports. 	Comments:

SUMMARY OF IMPACTS/RISKS AND POTENTIAL SOLUTIONS	Identified Impacts/Risks	Potential Solutions
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DISASTER SUMMARY	Details	Actions
	<p>The Project should include the necessary measures to reduce disaster risk to acceptable levels as determined by the Bank on the basis of generally accepted standards and practices. Alternative prevention and mitigation measures that decrease vulnerability must be analyzed and included in project design and implementation as applicable. These measures should include safety and contingency planning to protect human health and economic assets. Expert opinion and adherence to international standards should be sought, where reasonably necessary.</p>	<p>A more limited and specific Disaster Risk Assessment (DRA) may be required (see Directive A-2 of the DRM Policy OP-704). Please contact a Natural Disaster Specialist in VPS/ESG or INE/RND for guidance.</p>

ASSESSOR DETAILS	Name of person who completed screening:	Echeverría Echeverría, Carlos Bladimir (carlosec@IADB.ORG)
	Title:	
	Date:	2012-05-02

GUYANA
SUSTAINABLE ENERGY PROGRAM FOR GUYANA
GY-G1004

ENVIRONMENTAL AND SOCIAL STRATEGY

According to the Safeguard Policy Filter and Safeguard Screening Form (Annex II), this project has been classified as Category C, thus no Environmental and Social Strategy is required.

GUYANA
SUSTAINABLE ENERGY PROGRAM FOR GUYANA - GY-G1004
INDEX FOR PROPOSED SECTOR WORK

Issues	Description of works	Expected Dates	References & hyper links to Technical files
Technical aspects	Hinterland Electrification Final Report	4 th Quarter 2005	IDBDocs#36852320
	Assessment of the Energy Services Sector in the Caribbean	1 st Quarter 2009	IDBDocs-#35442002
	GPL's Development and Expansion Programme with Strategic Plan	2 nd Quarter 2009	IDBDocs#35386282
	Hydropower feasibility studies on the Chiung River	4 th Quarter 2009	IDBDocs#18064143
	Guyana Power Sector Policy	1 st Quarter 2010	IDBDocs#35386379
	Endorsement letter from Operational Focal Point.	1 st Quarter 2011	IDBDocs-#35753670
	Analysis of electricity tariff structure in Guyana	3 rd Quarter 2010	IDBDocs#35386050
	PPA Final report – Technical Losses Update 2010	3 rd Quarter 2010	IDBDocs#18073894
	Report on Energy Conservation Awareness Programme	4 th Quarter 2010	IDBDocs#35428855
	Unserved Areas Electrification Program Final Evaluation	4 th Quarter 2010	IDBDocs#35581327
	Evaluation of solar electricity demonstration projects implemented in four hinterland villages	4 th Quarter 2010	IDBDocs#36852321
Missions	Identification mission	2 nd Quarter 2012	
	Analysis mission	3 rd Quarter 2012	
	Negotiation mission	4 th Quarter 2012	

ANNEX V - CONFIDENTIAL