#### GUYANA Project Profile (PP)

#### I. BASIC PROJECT DATA

**Project Name:** Power Utility Upgrade Program.

**Project Number:** GY-L1041.

Project Team: Carlos Echeverria (ENE/CGY) Team Leader and Alejandro

Melandri (INE/ENE) Alternate Team Leader; Malaika Masson (INE/ENE); Jorge von Horoch (IFD/ICS); Jesus Tejeda (ENE/CEC); Andres Robles (INE/ENE); Leticia Ramjag (CCB/CGY); Lerone Williams (ENE/CGY); Roy Parahoo (PDP/CSU); Jainauth-Umrao, Naveen (FMP/CGY); and Javier Jiménez (LEG/SGO); under the supervision of Leandro Alves, Energy Division Chief (INE/ENE) and Sophie Makonnen,

Representative in Guyana (CCB/CGY).

**Borrower:** Co-operative Republic of Guyana. **Executing Agency:** Guyana Power and Light, Inc. (GPL).

Amount and Source: EU (CIF): US\$ equiv.  $26,350,000^{1}$ 

BID (OC): US\$ 26,350,000<sup>2</sup> Total: US\$ 52,700,000

**Execution timetable:** Disbursement 60 months

**Exceptions to Bank Policies and procedures:** None

**Environmental and Social Review:** Classification "C"

#### II. GENERAL JUSTIFICATION AND OBJECTIVES

Background. Guyana Power and Light, Inc. (GPL) is a state-owned utility whose operations comprise generation, transmission and distribution. With an installed nominal generating capacity of 148-MegaWatt (MW) and approximately 666-GigaWatt-hour (GWh) delivered annually, GPL supplies electricity to nearly 167,000 customers in the coastal communities, serving a relatively small urban and suburban area of roughly 500-square kilometers (km²), where more than 80 percent (%) of the population resides. The private sector plays a limited role in the power sector, supplying electricity to Linden and to other locations in the hinterlands; as supplier to GPL; and in self-generation with an estimated installed capacity of 42-MW (about 23% of Guyana's installed capacity). In order for the self-generators to switch to GPL's supply, it will be necessary for GPL's output to be of suitable quality, reliability and cost.

The European Union's Caribbean Investment Facility (CIF) will contribute with 19.375 million euros, equivalent to US\$26,350,000 according to the exchange rate on October 2013. The U.S. dollar amount may vary due to the exchange rate to be applied when the CIF resources have been received and converted.

The Government of Guyana has requested access to Ordinary Capital (OC) resources from the Grant Leverage Mechanism (GLM) to co-finance the project and to match the 1:1 co-financing ratio required as CIF's financial leverage.

- 2.2 **Sector Knowledge.** The Inter-American Development Bank (IDB) has extensive experience working in the power sector in Guyana, including in the last decade: 2004, the "Un-served Areas Electrification Program" (UAEP), which focused on infrastructure, hinterland electrification and institutional strengthening; 2008, the "Power Sector Support Program", which contributed to strengthen the legal, regulatory and institutional framework and to implement sector policies; 2011, the "Sustainable Development of the Electricity Sector and Improved Quality of Service" program, currently in execution, which contributes to GPL's efforts to reduce electricity losses; along with Technical Cooperation (TC).<sup>3</sup>
- 2.3 **Problem.** Key operational results and indicators show critical weaknesses in GPL's operations. Electricity losses remain high after several years of trying different strategies to curb them. Technical losses are estimated to reach 14% of gross generation, while commercial losses are estimated to add another 18%. Quality of service is low, partly due to an aged, weak and overloaded transmission and distribution network, the latter consisting of long radial feeders extending, in some cases, for more than 40-km. Weaknesses in the distribution network increase technical losses, due to the low capability of handling the distributed energy and also hinder efforts to reduce commercial losses, due to lack of antifraud type installations and adequate control support. These factors, together with low technical and executing capacities of GPL, high costs of generation and constraints to raise already high tariffs, contribute to poor financial results and constrain capital expenditures, among other undesired consequences.
- 2.4 GPL has been considering a wide range of infrastructure investments in its recent Development and Expansion Programme (D&E) in order to address problems in the grid and to cope with projected increases in electricity demand<sup>6</sup>; though persistent delays in the execution of such plans have hindered the achievement of significant results. In addition to the previously mentioned financial constraints, several assessments of GPL's operations and corporate capabilities highlight the company's limited capacity to perform within minimum international standards, in a sustainable manner, and much less within a context of a forecasted 4.8% average yearly increase in energy demand for the next 15 years. These assessments also reveal the need to produce a cultural change, thus enhancing operational and corporate capacity within GPL, including improving the performance of a challenged and stressed management and professional staff for: (i) system planning; (ii) project management; (iii) loss reduction; (iv) network design; (v) quality of service; and (vi) collection rates. Key challenges facing GPL can therefore be identified in two major inter-related areas: (i) overcoming

In 2012 the IDB approved two TC: (i) an Operational Support (OS) "Support to the preparation of Loan GY-L1038" (GY-T1095) which is currently supporting the preparation and will support the execution of GY-L1041; and (ii) "Strengthening Capacity in Energy Planning and Supervision" (GY-T1096).

Also, in the context of its Low Carbon Development Strategy (LCDS), the GOG is considering the development of the Amaila Falls Hydro project, of which GPL would be the solely off-taker.

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<sup>&</sup>quot;Management Support for Guyana Power and Light's Loss Reduction Investment Program" Final Report. IDBDocs35740267.

GPL's 2012 Financial Statements show net operations losses in 2011 and 2012.

- low operational efficiency; and (ii) improving the limited capacity of its infrastructure to supply a growing demand.
- 2.5 **Solution.** Addressing the identified challenges will require a comprehensive range of efforts, including the implementation of necessary Capital Expenditures Investments (Capex) and achievement of Performance Targets (PT), under a structured strategy, with continuous and strong monitoring from the Government of Guyana (GOG) as GPL's primary stakeholder. This will require a coordinated effort to strengthen its corporate capabilities to manage its operations while implementing key components of GPL's D&E. These improvements should increase GPL's overall performance, facilitating better financing options and risk profile.
- 2.6 The proposed solution (the Project) comprises the implementation of a Corporate Development Program (CDP) to allow for a culture change toward an organization able to supply energy within minimum international standards, together with the execution of fundamental infrastructure investments to support loss reduction. The Project will help GPL to improve corporate performance in key business areas, such as planning, procurement, operation, maintenance, billing and financial management, among others, which should allow GPL to achieve PT related to technical and commercial efficiency. To this extent, the Project will finance: (i) outsourced support to senior management to upgrade skills and implement best practices; (ii) a CDP to upgrade key areas of GPL; and (iii) infrastructure investments to help reduce losses. A key factor will be the timely, effective and coordinated implementation of both infrastructure and intensive and sustained support to senior management, and to GPL as a whole.
- 2.7 The design of the CDP is intended to be flexible and dynamic. Using TC resources, an international consulting firm will be hired to help design and implement the support to GPL's management, including defining roles and profiles, as well as the performance commitments for monitoring and control of the CDP implementation and GPL's performance improvement.
- 2.8 **Country Strategy.** The Project is aligned with the IDB Country Strategy for Guyana 2012-2016. It focuses on priority areas "Sustainable Energy" and "Public Sector Management", with the expected outcome of "Strengthened capabilities of GPL". The Project was originally envisioned to be financed through two loans, the first of which was included in the 2013 Country Program Document as GY-L1038. Now, with the same scope and components, the project is proposed as one single operation (GY-L1041) including co-financing.
- 2.9 **Ninth General Capital Increase (GCI-9).** The Project is aligned with IDB's Framework of a New Institutional Strategy under its sector priorities and preferential support to less developed Latin American and Caribbean countries. It will contribute to the following lending target areas: (i) supporting development in small and vulnerable countries; and (ii) assisting borrowers in dealing with climate change, sustainable energy and environmental sustainability.

#### III. PROJECT'S OBJECTIVE AND DESCRIPTION

- 3.1 **Project's goal and purpose.** The objective of the Project is to enhance GPL's operational efficiency and corporate performance, in order to prepare the organization to supply electricity in a sustainable manner over the long-term.
- 3.2 The Project will support the implementation of a CDP centered in specific areas, such as: (i) management and administration; (ii) system planning and design; (iii) information technology; (iv) infrastructure requirements; and (v) commercial operations; as well as in investments consistent with GPL's D&E to improve strategic infrastructure to allow for loss reduction.
- 3.3 **Component I. Strengthening GPL's Management Capabilities.** The objective of Component I is to strengthen GPL's management capabilities by providing its senior management with technical support in the following areas: (i) operations and projects; (ii) commercial services and information technology; (iii) finance and procurement; (iv) human resources; and (v) loss reduction.
- In addition, Component I will help set in place a cost-effective oversight and accountability mechanism to monitor and evaluate the CDP's progress on a permanent basis. This mechanism will comprise the following key elements: (i) standardized performance agreements for GPL's senior management; (ii) a system to gather relevant, reliable and timely data, essential in tracking and measuring progress against the targets; (iii) the hiring of an international expert to generate regular, independent and standard reports on improvements and challenges toward the achievements of the CDP's PTs; and (iv) an effective format to ensure efficacious interaction, quality communication and swift adoption of strategic decisions on a routine and permanent basis among the key stakeholders, including GPL's Board and Management and the GOG. The proposed mechanism will allow for all stakeholders to focus on delivery and devote the time, attention and political commitment required to achieve the indicated PTs.
- 3.5 Component II. Operational Efficiency. Component II will support the CDP with the objective of strengthening GPL's capabilities in planning, design, commercial operation, demand-side management, and power and network operations. To this end, Component II will finance several CDP activities including: (i) the provision of services from experienced power system planners and design advisers; (ii) modernization and strengthening of the Planning and Design department; (iii) improvement in the use of the Supervisory Control and Data Acquisition system (SCADA) and of the Customer Information System (CIS), which would allow for on-line management of the client database, effective management of service orders, follow-up on requests for new connections, servicing customers through a call center and management of the commercial cycle; (iv) implementation of an Inventory Management Software; (v) implementation of an Incidence Recording and Management System to better respond to client contingencies by automating the detection of distribution faults and improving the quality of power supply; and (vi) strengthening of the network construction department including data integration, throughout the monitoring of the grid-consumers-loads equation, using state-of-the-art technology and preparedness for the interconnection of new demand and additional supply.

- 3.6 Component III. Infrastructure Investments for Loss Reduction. Component III will finance infrastructure envisioned in GPL's plans that are specifically focused on the reduction of overall electricity losses and the improvement of safety and reliability of the system. This infrastructure will be planned and executed with a comprehensive and consistent approach to tackle technical and commercial losses, while building upon experience obtained from the ongoing loss reduction efforts, currently being carried out mainly with resources from the project GY-L1037.
- 3.7 Component III will finance: (a) infrastructure aimed to reduce technical losses, including: (i) network rehabilitation or reconfiguration, as required, (ii) upgrade or optimal relocation of distribution transformers at load centers, and (iii) addition of new distribution transformers; and (b) interventions to pursue the reduction of commercial losses, such as: (i) customer-transformer linking system to CIS, and (ii) appropriate meter interface.
- 3.8 In order to finance the Project within the framework of the programming provisions, the GOG and the IDB have agreed to the potential allocation of co-financing resources from the European Union's Caribbean Investment Facility (CIF), which will be applied to finance activities described in Component III "Infrastructure Investments for Loss Reduction". The scope of the Project is based on the assessment of key issues relating to corporate performance and efficiency within GPL that need to be addressed.

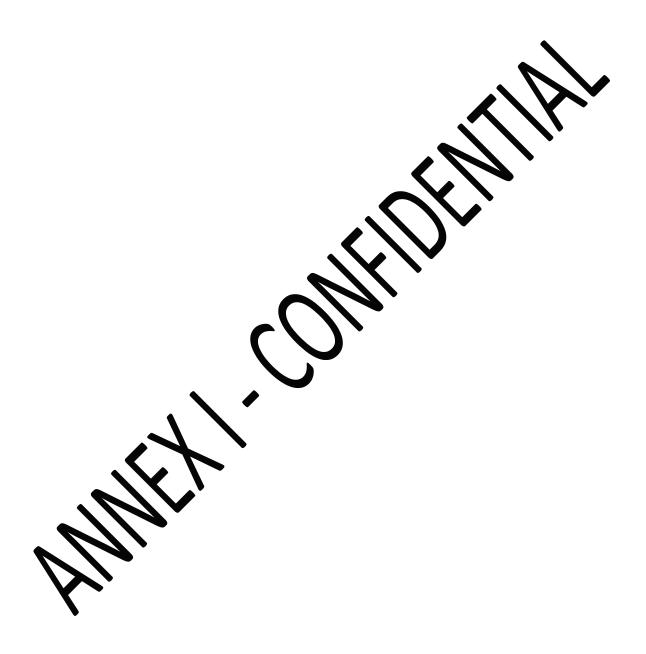
#### IV. SAFEGUARDS AND FIDUCIARY SCREENING

- 4.1 According to the Safeguard Policy Filter and Safeguard Screening Form, the Project is classified as Category "C" without expected negative socio-environmental impacts, thus no Environmental and Social Strategy is required.
- 4.2 Monitoring and evaluation of PT is required to periodically measure progress and follow-up the overall utility performance, focusing on critical factors for the effective development of GPL.
- 4.3 The main identified risks are: (i) slow development and delayed investment execution of current projects consume management capacities; (ii) difficulties in recruiting required reinforcements; (ii) GPL's lack of skilled technicians and staff in different areas of the business; (iv) reluctance to the implementation of the Project could limit the scope of the support to GPL and consequently hinder the expected results; and (v) if EU resources are not available by the time this operation is considered by the Board of Executive Directors, then the availability of the loan resources would have to be conditioned upon the signature of the corresponding agreement between the EU and the IDB.

#### V. RESOURCES AND TIMETABLE

5.1 The expected date for submission of the Project to the Board is the first quarter of 2014. Annex V details the program's schedule and estimated resources.

The CIF launched in 2013 as a mechanism to support Caribbean Countries in financing key infrastructure.



#### **GUYANA**

# POWER UTILITY UPGRADE PROGRAM

#### **GY-L1041**

#### 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.

|          | IDB Sector                      | ENERGY-ENERGY SECTOR REHABILITATION AND EFFICIENCY         |  |
|----------|---------------------------------|--|--|
|          | Type of Operation               | Investment Loan  |  |
|          | Additional Operation Details    |  |  |
|          | Investment Checklist            | Generic Checklist  |  |
|          | Team Leader                     | Echeverría Echeverría, Carlos Bladimir (carlosec@IADB.ORG) |  |
| PROJECT  | Project Title                   | Power Utility Upgrade Program - II                         |  |
| DETAILS  | Project Number                  | GY-L1041   |  |
| 52174120 | Safeguard Screening Assessor(s) | Robles, Andres (arobles@IADB.ORG)                          |  |
|          | Assessment Date                 | 2013-12-17   |  |
|          | IDB Sector                      | ENERGY-ENERGY SECTOR REHABILITATION<br>AND EFFICIENCY      |  |

|                               | Type of Operation                             | n Loan Operation  |  |  |
|-------------------------------|---|---|--|--|
| SAFEGUARD<br>POLICY<br>FILTER | Safeguard Policy<br>Items<br>Identified (Yes) | The Bank will make available to the public the relevant Project documents.  | (B.01) Access to<br>Information Policy- OP-<br>102 |  |
| RESULTS                       |   | The operation is in compliance with environmental, specific women's rights, gender, and indigenous laws and regulations | (B.02)   |  |

|  | of the country where the operation is being implemented (including national obligations established under ratified Multilateral Environmental Agreements).   | (B.03) |
|--|--|--------|
|  | associated facilities) is screened and classified according to their potential environmental impacts.  |        |
|  | Consultations with affected parties will be performed equitably and inclusively with the views of all stakeholders taken into account, including in particular: (a) equal participation of women and men, (b) socioculturally appropriate participation of indigenous peoples and (c) mechanisms for equitable participation by vulnerable groups. | (B.06) |
|  | 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) |
|  | Any part of the investment or component(s) is being cofinanced.  | (B.15) |
|  | In-country systems are being used based on performed equivalency and acceptability analysis.   | (B.16) |
|  | 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<br>Safeguard Policy<br>Items(?) | No potential issues identified  |  |
|---|---|--|
| Recommended Action:                       | Operation has triggered 1 or more Policy Directives; ple refer to appropriate Directive(s). Complete Project Classification Tool. Submit Safeguard Policy Filter Report PP (or equivalent) and Safeguard Screening Form to ES |  |
| Additional<br>Comments:                   |   |  |

| ASSESSOR | Name of person who completed screening: | Robles, Andres (arobles@IADB.ORG) |
|----------|---|-----------------------------------|
| DETAILS  | Title:                                  |                                   |
|          | Date:                                   | 2013-10-30                        |

### 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.

|         | IDB Sector                         | ENERGY-ENERGY SECTOR                                       |  |
|---------|------------------------------------|--|--|
|         |                                    | REHABILITATION AND EFFICIENCY                              |  |
|         | Type of Operation                  | Investment Loan  |  |
|         | Additional Operation Details       |  |  |
|         | Country                            | GUYANA   |  |
|         | Project Status                     |  |  |
| PROJECT | Investment Checklist               | Generic Checklist  |  |
| DETAILS | Team Leader                        | Echeverría Echeverría, Carlos Bladimir (carlosec@IADB.ORG) |  |
|         | Project Title                      | Power Utility Upgrade Program - II                         |  |
|         | Project Number                     | GY-L1041   |  |
|         | Safeguard Screening<br>Assessor(s) | Robles, Andres (arobles@IADB.ORG)                          |  |
|         | Assessment Date                    | 2013-12-17   |  |
|         | Additional Comments                |  |  |

|                                      | Project Category:              | Override   | Override Justification:  |
|--------------------------------------|--------------------------------|--|--|
|                                      | C Rating:                      | Rating:  | Comments:  |
| PROJECT<br>CLASSIFICATION<br>SUMMARY | Conditions/<br>Recommendations | Some Categoral safeguard or m. B.3). Where released and or m. environmental and health and safe.      The Project Toontaining the Environment Polyment | ental assessment studies or re required for Category "C" operations.  ory "C" operations may require specific conitoring requirements (Policy Directive evant, these operations will establish nonitoring requirements to address and other risks (social, disaster, cultural, ty etc.).  Team must send the PP (or equivalent) Environmental and Social Strategy (the or an ESS are described in the olicy Guideline: Directive B.3) as well as Policy Filter and Safeguard Screening |

| SUMMARY OF IMPACTS/RISKS AND | Identified    | Potential Solutions |
|------------------------------|---------------|---------------------|
| POTENTIAL SOLUTIONS          | Impacts/Risks |                     |

| DISASTER<br>RISK | Disaster Risk Category:<br>Low |   |
|------------------|--------------------------------|---|
| SUMMARY          | Disaster/<br>Recommendations   | No specific Disaster Risk Management is required. |

| ASSESSOR | Name of person who completed screening: | Robles, Andres (arobles@IADB.ORG) |
|----------|---|-----------------------------------|
| DETAILS  | Title:                                  |                                   |
|          | Date:                                   | 2013-10-30                        |

# GUYANA SUPPORT FOR THE ENERGY SECTOR GY-L1041

#### ENVIRONMENTAL AND SOCIAL STRATEGY (ESS)

The objective of the Project is to enhance Guyana Power and Light, Inc. (GPL)'s operational efficiency and corporate performance, in order to prepare the organization to supply electricity in a sustainable manner over the long-term.

The Project will support investments of a portion of GPL's Development and Expansion Programme (D&E), focusing on loss reduction infrastructure, as well as the implementation of a Corporate Development Program (CDP) centered in specific areas, such as: (i) management and administration; (ii) system planning and design; (iii) information technology; (iv) infrastructure requirements; and (v) commercial operations.

Main activities of the Project are related to: (a) rehabilitation of the existing distribution network and associated equipment as part of an strategic loss reduction program; and (b) the strengthening of GPL, in order to contribute to the enhancement of its corporate capacities, which will help to achieve a set of performance targets for GPL to improve: (i) overall operational results, in terms of technical and commercial efficiency; and (ii) corporate performance in all of its key business areas, such as planning, procurement, operation, network maintenance, billing, and financial management, among others.

Considering the scope of the Project, the Safeguard Policy Filter and Safeguard Screening Form (Annex II), classified the Project as "Category C", thus no Environmental and Social Strategy is required.

# GUYANA

# SUPPORT FOR THE ENERGY SECTOR GY-L1041

## INDEX FOR PROPOSED SECTOR WORK

| Issues            | Description of Works   | Expected Dates               | References &<br>Hyperlinks to<br>Technical Files |
|-------------------|--|------------------------------|--|
|                   | Monitoring Performance of Electric Utilities                           | 4 <sup>th</sup> Quarter 2009 | <u>IDBDocs#37430428</u>                          |
|                   | Guyana Power Sector Policy   | 1 <sup>st</sup> Quarter 2010 | <u>IDBDocs#35386379</u>                          |
|                   | Report on Energy Conservation Awareness Program                        | 4 <sup>th</sup> Quarter 2010 | <u>IDBDocs#35428855</u>                          |
|                   | GPL Operational Assessment Report                                      | 3 <sup>rd</sup> Quarter 2011 | <u>IDBDocs#37430418</u>                          |
|                   | GPL's Development and Expansion Programme 2013-2017                    | 1st Quarter 2013             | <u>IDBDocs#38205512</u>                          |
|                   | GPL Audited Statements – 2012  | 1 <sup>st</sup> Quarter 2013 | IDBDocs#38205581                                 |
| Technical Aspects | GPL Corporate Development Program Design (Phase I) Draft Final Report  | 1 <sup>st</sup> Quarter 2013 | <u>IDBDocs#37430411</u>                          |
| Technical Aspects | GPL Corporate Development Program Design (Phase I) Final Report        | 3 <sup>rd</sup> Quarter 2013 | <u>IDBDocs#37430411</u>                          |
|                   | Institutional Capacity Assessment System for Executing Agencies (SECI) | 4 <sup>th</sup> Quarter 2013 |  |
|                   | Financial Evaluation   | 4 <sup>th</sup> Quarter 2013 |  |
|                   | Comprehensive Assessment of the Distribution Network                   | 4 <sup>th</sup> Quarter 2013 |  |
|                   | Economic Analysis  | 4 <sup>th</sup> Quarter 2013 |  |
|                   | Guyana Study of Alternatives   | 2 <sup>nd</sup> Quarter 2014 |  |
|                   | GPL Corporate Assessment (Phase II)                                    | 2 <sup>nd</sup> Quarter 2014 |  |
|                   | Analysis Mission   | 1 <sup>st</sup> Quarter 2014 |  |
| Missions          | Negotiation Mission  | 1 <sup>st</sup> Quarter 2014 |  |
|                   | Approval Mission   | 1 <sup>st</sup> Quarter 2014 |  |

