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GUYANA

POWER SECTOR SUPPORT PROGRAM

(GY-L1014)

LOAN PROPOSAL

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ANNEX I: POLICY MATRIX

APPENDIX: PROJECT RESOLUTION

Electronic Links and References	
Basic Socioeconomic Data	http://www.iadb.org/countries/home.cfm?id_country=GY&Language=English
Status of Loan in Execution & Loans Approved	http://portal.iadb.org/approvals/pdfs/GYen.pdf
Tentative Lending Program	http://opsgs1/ABSPRJ/tentativelending.ASP?S=GY&L=EN
Information available in the files of INE/ENE	http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1184249
Annex II - Means of Verification Matrix	http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1199647
Annex III - Results Matrix	http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1199711
Annex IV – Policy Letter	http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1201286

ABBREVIATIONS

CARICOM	Caribbean Community and Common Market
D&E Plan	Development and Expansion Plan
EPA	Environmental Protection Agency
ESP	Electricity Sector Program
ESRA	Electricity Sector Reform Act
FDI	Foreign Direct Investment
FSO	Fund for Special Operations
GDP	Gross Domestic Product
GEA	Guyana Energy Agency
GEC	Guyana Electricity Corporation
GOG	Government of Guyana
GP&L	Guyana Power and Light Limited
GWh	Gigawatt hours
HIPC	Heavily Indebted Poor Countries
IFA	Integrated Fiduciary Assessment
IMF	International Monetary Fund
IPP	Independent Power Producers
MDRI	Multilateral Debt Relief Initiative
MOF	Ministry of Finance
MW	Megawatts
NCS	National Competitiveness Strategy
NDS	National Development Strategy
OC	Ordinary Capital
OPM	Office of the Prime Minister
PBL	Policy Based Loan
PEU	Project Executing Unit
PPA	Power Purchase Agreements
PRGF	Poverty Reduction and Growth Facility
PRSP	Poverty Reduction Strategy Paper
PUC	Public Utilities Commission
PUCA	Public Utilities Commission Act
UAEP	Unserved Areas Electrification Program
UNDP	United Nations Development Programme
VAT	Value Added Tax

PROJECT SUMMARY
POWER SECTOR SUPPORT PROGRAM (GY-L1014)

Financial Terms and Conditions ¹					
Borrower: Co-Operative Republic of Guyana				OC financing	FSO financing
Executing Agency: Ministry of Finance			Amortization Period:	30 years	40 years
Project Executing Unit: Office of the Prime Minister			Grace Period:	5.5 years	40 years
Source	Amount	%	Disbursement Period:	4 years	4 years
FSO Funds:	US\$6.00 million	50	Interest Rate:	adjustable	0.25%
OC Funds:	US\$6.00 million	50	Inspection and Supervision Fee:	0%	0%
Total financing:	US\$12.00 million	100			
Local:	US\$0.00 million	0	Credit fee:	0.25 %	0%
Total:	US\$12.00 million	100	Currency:	U.S. dollars	U.S. dollars
Project at a Glance					
Project objective: The overall objective of the Program is to support the efforts of the Government of Guyana to promote a more sustainable and efficient energy sector. In order to achieve this objective and in line with the identified challenges and Program strategy, the Policy Based Loan will support three components: the promotion of sustainable reduction of electricity losses; institutional, legal, and regulatory measures to contribute to the sustainability of these loss reductions; and strengthening the capabilities of the power utility company.					
Special contractual clauses: For the policy reform program, disbursements will be made in three tranches according to the conditions described in the Policy Matrix.					
Exceptions to Bank policies: None					
Program consistent with country strategy: YES[X] NO[]					
Program qualifies for: SEQ [NO] PTI[NO] Sector[] Geographic[] Headcount[]					
Procurement: As a policy-based loan, no procurement considerations apply					
Verified by CESI on: October 18, 2007					

¹ The interest rate, credit fee, and inspection and supervision fee mentioned in this document are established pursuant to document FN-568-3 Rev. and may be changed by the Board of Executive Directors, taking into account the available background information, as well as the respective Finance Department recommendations. In no case will the credit fee exceed 0.75%, or the inspection and supervision fee exceed 1% of the loan amount (*)
 (*) With regard to the inspection and supervision fee, in no case will the charge exceed, in a given six-month period, the amount that would result from applying 1% to the loan amount divided by the number of six-month periods included in the original disbursement period.

I. FRAME OF REFERENCE

A. Socioeconomic framework

- 1.1 Guyana is the largest country of the Caribbean Community and Common Market (CARICOM), occupying 216,000 square kilometers. Despite its relatively large size, Guyana has only a population of 741,000 people according to the 2002 census. The population is concentrated around the capital city of Georgetown whereas the interior rural areas are sparsely populated. Guyana is one of the least developed countries in the Americas and internationally it was ranked 103rd of 177 countries listed in the United Nation Development Program (UNDP) 2006 Human Development Index Report.

B. Macroeconomic analysis

- 1.2 Guyana experienced strong economic growth from 1991 to 1997, averaging 7 percent over the period. Nevertheless, annual growth averaged only 0.3 percent during 1998-2005. Although, many factors have contributed to the slowdown of the economy, many challenges have hindered advances in infrastructure. The Guyanese economy is heavily dependent on fuel and its industrial activity is energy intensive. According to the Investment Climate Assessment (World Bank, 2006), Guyana has high end-user prices and low reliability of electricity supply, which impact the cost of production and doing business. Therefore a reduction in the cost of electricity would greatly improve prospects for economic growth.
- 1.3 In 2006, the economy grew at approximately 5 percent, reflecting a recovery in private sector credit, preparations for the Cricket World Cup, higher FDI flows, high commodity prices and large inflows of remittances (24 percent of GDP). Economic recovery will likely be sustained in 2007 due to aggregate demand stimulus from Cricket World Cup-related activities. Recent fiscal deterioration has been a result of various factors, including capital investments to restructure the sugar industry, high world oil prices, and flood-related spending. However, the process to achieving fiscal consolidation has started. The fiscal deficit declined from 13.6 percent of GDP in 2005 to 11.2 percent of GDP in 2006 and a significant fiscal adjustment is envisaged through 2010. The envisaged medium-term fiscal target would lead to a decline in the overall fiscal deficit to 2 percent of GDP by 2010. Debt relief initiatives have strengthened substantially Guyana's debt sustainability. Nevertheless, Guyana is still in a moderate risk of debt distress based on the IMF/World Bank debt sustainability analysis. Fiscal sustainability exercises show that Guyana needs to adjust its current fiscal deficit to achieve fiscal sustainability.
- 1.4 Specific temporary developments led to a severe deterioration in the current account deficit in 2005-06, which increased to 28 percent of GDP. Nevertheless, the current account deficit is projected to narrow gradually to 16 percent of GDP by 2010. The increase in imports of capital and intermediate goods is expected to

decline as major public capital investments will be completed. Moreover, recent large FDI inflows in mining and sugar restructuring will probably be reflected in more dynamic exports. Inflows of remittances have become a large source of foreign exchange over recent years, representing 24 percent of GDP in 2005-06.

- 1.5 Various measures will help to achieve fiscal sustainability in the medium-term. On the fiscal front, the public revenue ratio will be broadly maintained at about 32 percent of GDP, while reducing the high tax burden. The major reforms include the strengthening of tax administration and the tax system to allow a reduction of personal and corporate income tax rates and tariffs. On the expenditure side, the one-off expenditures related to flooding and elections in 2006 will be reversed (around 2.5 percent of GDP) and increases in other current expenditures will be contained. In particular, large public investments in the sugar Skeldon project, which have put pressure on public expenditures in the recent past (equivalent to 6 percent of GDP in 2006), will come to an end by 2008. The envisaged fiscal adjustment will protect spending on social programs; debt service savings as a result of the delivery of debt relief will be allocated in part to the social sector, and the remainder will be preserved.
- 1.6 Guyana benefited from the Heavily Indebted Poor Countries (HIPC) Initiatives, which provided considerable debt relief to the country. The HIPC Initiatives lowered further the debt-burden ratios in Guyana, although fiscal deterioration has probably harmed some of the gains from HIPC relief. External debt-to-GDP ratios declined significantly from 200 percent in 1997 to 133 percent in 2005. Guyana has been granted additional debt relief in the context of the Multilateral Debt Relief Initiative (MDRI) provided by the IMF and the World Bank in 2005 and more recently, the IDB-07 Relief Initiative. By 2006, Guyana's external debt-to-GDP ratio declined to 103 percent. After applying IDB relief to the 2006 debt stock, the external debt-to-GDP ratio will drop further to about 58 percent.
- 1.7 The Government of Guyana (GOG) is currently negotiating a new IMF-supported program. Guyana has been a prolonged user of Fund resources since the late 1980s. The last PRGF-supported program was completed successfully in September 2006. More recently, the IMF concluded its assessment of Guyana's macroeconomic situation in the 2006 Article IV Consultation report in May 2007. Even though the Government of Guyana is not currently engaged in a program with the IMF, it is analyzing the kind of engagement it would like to have in the near future. An IMF mission will take place at the end of November to undertake the 2007 Article IV Consultation.
- 1.8 In accordance with the Guidelines for preparation and implementation of PBLs (CS-3633), in the absence of an IMF program, IMF report for the 2006 Article IV Consultation, concluded in May 2007, indicates that recent macroeconomic developments in the Guyanese economy are encouraging due to a stronger than anticipated recovery in growth in 2006 and a decline in the overall fiscal deficit. IMF view is that the economy is in the midst of a firm recovery following significant domestic and external shocks in recent years. IMF believes that

continued growth will be supported by higher FDI (particularly in gold and telecommunications), higher government capital spending in the sugar and energy sectors, and greater access to private credit.

- 1.9 IMF stressed that sustaining the higher rates of growth will require further investments and reforms to address structural weaknesses. The structural reform agenda should center on ensuring successful VAT implementation and subsequent future reform of the tax system, additional strengthening of public expenditure management, further restructuring of the sugar sector, reducing the high cost of electricity, and enhancing the investment climate, including strengthening governance and reducing red tape, and financial sector reforms to enhance access to credit. Overall, the medium-term macroeconomic prospects for the country have improved.
- 1.10 The GOG is preparing a new Poverty Reduction Strategy Paper (PRSP), which will prioritize policies to sustain economic growth and reduce poverty. Moreover, the National Competitiveness Strategy (2005) is the main framework for reforms to increase diversification through building competitiveness, including improvements in the business climate. The GOG is restructuring the sugar industry to improve its competitiveness, partly financed by the EU. In addition, diversification of the agricultural sector has become a priority for the GOG.
- 1.11 A macroeconomic assessment conducted by the Bank concludes that the macroeconomic policy framework is appropriate for a policy-based loan. Moreover, the Power Sector Support Program would contribute to improving the financial situation of the power utility company, which would have a positive effect on the overall fiscal position. Greater efficiency in the energy sector would bring improvements in the investment climate, promoting economic growth. The analysis has also balanced the influence of macroeconomic vulnerabilities factors such as the low economic growth, external vulnerability, fiscal and debt fragility, and external imbalances.

C. The Power Sector

- 1.12 The principal power system of Guyana is comprised of the Demerara Interconnected System and the Berbice Interconnected System with a weak transmission link between them and isolated systems along Essequibo Coast at Anna Regina, Leguan, Wakenaan and Bartica. The country is highly dependent on petroleum imports, primarily in the forms of fuel oil and diesel to meet the energy demand.
- 1.13 The major offices and agencies involved in the oversight and administration of the power sector are the Office of the Prime Minister (OPM), the Guyana Energy Agency (GEA) and the Public Utility Commission (PUC). The OPM has responsibility for the overall administration of the power sector, including the administration of the Electricity Sector Reform Act 1999 (ESRA) and key policymaking and regulatory functions. The OPM has the authority to grant

licenses to power suppliers, develop regulations and propose amendments to existing laws. The GEA is responsible for advising OPM on the development of energy policy and for providing statistical analysis. As an independent regulatory authority, the PUC is responsible for monitoring and enforcing compliance of the utilities with the terms and conditions of their licenses and also for determining and approving tariffs. The Environmental Protection Agency (EPA) is responsible for enforcing environmental regulations.

- 1.14 Guyana Power and Light Limited (GP&L) is a vertically integrated utility and is the principal utility in Guyana supplying electricity. The 25 year license of the company, issued in October 1999, covers the entire country with the exception of the town of Linden and such other areas outside of GP&L's current area of supply which the utility is unable or unwilling to supply. There are several secondary operators in hinterland areas. The current total installed capacity of Guyana's national grid is approximately 120 megawatts (MW) of which 102 MW are available. Approximately 560 Gigawatt hours (GWh) are produced annually by the company. The total installed capacity of Guyana's national grid is approximately 120 MW and is exclusively thermal based. However, discussions are ongoing between the principal public supplier and Independent Power Producers for the purchase of energy produced from alternative sources such as hydro, wind and bagasse. There are several secondary operators in hinterland areas.
- 1.15 In 1999, the Government sold a 50 percent stake in the Guyana Electricity Company (now GP&L) to a consortium of investors. Due to financial troubles stemming from poor collections, rising oil prices and challenges in the operational management of the company, the consortium sold back its shares to the Government for a nominal fee in April 2003. Although the investor group was tasked with investing in equipment to reduce both technical and non-technical electricity losses, these losses actually increased to a level above 40 percent of net generation during the tenure of the consortium. This level of losses resulted in the PUC levying a fine on GP&L: this fine has not been paid and stands as a contingent liability of GP&L. GP&L returned to profitability in 2003 and used internally generated funds to finance itself through 2006. The GP&L policy of maintaining a stable tariff and absorbing escalating fuel prices resulted in foregone revenues between 2003 to 2007 and in a financial reversal for 2006. Audited financial statements for 2006 present a negative EBITDA of US\$1.8 million.

D. Power Sector Strategy

- 1.16 An Energy Policy for Guyana was prepared in 1994 and provided forecasts for energy supply and demand for the period 1998-2004. Included among various strategies for satisfying the energy demand are: increase efficient use of bagasse, wood waste and rice-husk for electricity generation; develop major hydropower facilities; increase efficient use of petroleum based products; and support alternative energy sources.

- 1.17 Progress toward the policy objectives are reflected in the following actions:
- a. GP&L made hydropower generation a priority in its D&E Plan 2007-2011 with a 100MW hydroelectric plant expected by 2011;
 - b. A pre-feasibility study was completed in August 2005 for the Turturba Rapids 760MW hydropower project;
 - c. Power Purchase Agreements (PPA) negotiations of a 12MW wind farm in East Coast Demerara;
 - d. Solar power projects at Capoey, Kurukubaru, Yarakita, Muritaro and such systems exist in many hinterland communities including Orinduik, Kabakaburi, Paruima, and Kato;
 - e. Memorandum of Understanding between GP&L and Guyana Sugar Company (Guysuco) under which Guysuco will develop a 20MW bagasse power plant as an Independent Power Producer (IPP).
- 1.18 As principal power supplier, GP&L has developed an operations and development plan to improve its short-term performance. Nevertheless, there needs to be a comprehensive power sector policy to guide development strategies, which is a condition under this Program.

E. Guyana's National Development Strategy and Power Sector Strategy

- 1.19 The National Development Strategy (NDS) sets out priorities for Guyana's economic and social development policies. The broad national objectives include: (i) rapid growth of incomes of the population; (ii) poverty alleviation/reduction; (iii) satisfaction of basic social and economic needs; and (iv) the establishment and maintenance of the requirements for full participation of society on a democratic basis. In support of the national objectives, the principal policy objectives for the power sector are: (i) an adequate and dependable supply of electricity; (ii) the elimination of Government fiscal transfers; (iii) a reduced dependency on imported petroleum products; (iv) an increased utilization of renewable energy resources, including the use of hydro power; (v) the sustainable use of energy; (vi) the promotion of energy conservation practices; and (vii) promoting private participation in the power sector through the power purchase arrangements and outsourcing of maintenance and commercial activities.
- 1.20 Guyana currently adheres to a Poverty Reduction Strategy Paper (PRSP) that places emphasis on policies and programs that would markedly reduce poverty. This PRSP was accepted by the Boards of the World Bank and the IMF in December 2000. The PRSP recognizes that an unreliable power supply and a high cost of energy are factors that limit the ability of Guyana to achieve an internationally competitive profile. A new PRSP is currently being planned.

- 1.21 A National Competitiveness Strategy (NCS) was prepared by the Ministry of Tourism, Industry and Commerce in 2005 and focused on the NDS's principle of economic diversification with the objective of achieving a more competitive international profile. In the report, the NCS states that an efficient infrastructure is necessary to improve national competitiveness. The report's action plan recommends assessing weaknesses in infrastructure and identifying policies measures to overcome these weaknesses. The Competitiveness Program is currently being implemented.
- 1.22 The GOG identifies the high cost of energy as an impediment to development and competitiveness. Electricity losses are a key contributing factor to this cost structure. The GOG has demonstrated repeatedly its commitment to pursue loss reduction. Among the initiatives to reduce non-technical losses, the GOG has supported GP&L's steps to embark on an aggressive initiative to identify and/or remove illegal connections, to prosecute such cases in the commercial and Magistrates courts, to hire a consulting firm to monitor advances on the loss reduction process, and to propose changes to legislation to assist in combating electricity theft (§1.30 to §1.34).

F. Current Challenges in the Power Sector

- 1.23 The power sector of Guyana faces formidable challenges related to its operational, institutional, regulatory and business environment. Technical challenges include inefficient equipment, inconsistent technical standards, small market size, long distances between sites with hydro potential and load centers and a persistently high level of electricity losses. These factors have impeded the development of hydropower and minimized private sector investment. High losses generally result in the imposition of higher tariffs, introduce forced outages or result in undue pressure on the generation and distribution systems, resulting in the lowering of the quality of service. Furthermore, the lack of investment and market factors combine to restrict the expansion of the system to under-served areas.
- 1.24 As a result of the aforementioned factors, larger customers requiring uniform and reliable power are compelled to leave the grid and to generate their own power to the further detriment of GP&L's sustainability and the overall competitiveness of Guyana. The current high level of oil prices appears to have catapulted the sector into taking immediate action to address the electricity losses.
- 1.25 Operational challenges: The significant volume of electricity losses poses one of the most pressing issues for the sustainability of the sector. Electricity losses, defined as the difference between energy generated and energy billed to customers, averaged between 39.6 percent and 42.7 percent during the period 2001-2005. An Evaluation and Prioritization of Loss Reduction Investments study completed in June 2006 by an independent consulting firm calculated each category of losses and identified investments and actions to mitigate the losses. The study concluded that in 2005, 70 percent of overall losses were non-technical. This implied that approximately 28 percent of produced energy was lost. It was

estimated that 11 percent of energy was lost from illegal connections, 7 percent from billing problems and 11 percent from metering issues. Inadequate or malfunctioning meters, lack of meter certification, shortage in training of meter readers, and the challenge of physically monitoring networks makes theft of electricity tempting option for customers. The billing system cannot perform to the standards expected and it lacks the ability to provide reliable data and the introduction of proper controls is difficult. Technical losses in the order of 11 percent are partially due to the network configuration, inefficient and antiquated infrastructure, and other technical weaknesses, which could be addressed with investments in capital works outside of this operation. Under current circumstances, each 1 percent of losses represent US\$1.2 million in lost revenue for GP&L.

- 1.26 Institutional challenges: Guyana is seeking a long-term strategy or policy initiative for the power sector (§1.18). The current focus, while understandable within the context of current challenges, should be supplemented with a long-term strategic direction. The development of an updated power sector policy that establishes the environment for sector progress is seen as a fundamental base on which PUC and GP&L could establish long-term priorities, and as an incentive for private sector participation. Although relatively recent legislation governs the sector, that legislation was created in the context of an assumption of private sector management. The existing legislation requires modifications on such key concepts as tariffs, development of the power sector, as well as in governance, transparency, and reporting requirements.
- 1.27 Regulatory challenges: The human and financial resources available to the PUC are inadequate to permit it to manage effectively its multi-sector responsibilities. In particular, the growing telecommunications sector has exerted significant demands for resources. The lack of resources has impacted adversely its ability to regulate the utilities, including the power sector. Currently the PUC regulates the sector using only a chairman and four individuals appointed by the OPM.
- 1.28 Business challenges: GP&L has financed most of its investments through internally generated funds. Given this investment strategy, operational efficiency assumes an even greater importance for the utility. The high level of electricity losses is one operational area upon which significant emphasis needs to be placed.
- 1.29 GP&L has also attempted to optimize its performance by entering into Power Purchase Agreements (PPA) with large industrial companies. This arrangement would permit the utility to benefit from the economies of scale realized by these companies and to secure energy supplies at a favorable price. To date, there has been only limited success in this initiative. Barring this alternative, GP&L is faced with serious constraints. The required investment to replace inefficient or obsolete technology and equipment is high, the market size is small, consumption per capita is low and fuel prices have increased steeply. The low level of per capita income also serves as a limitation on future demand growth for electricity. The

combination of low per capita income and a relatively high tariff level (US\$0.24/kwh) is not conducive to an expanded market.

G. Government Initiatives

- 1.30 The Government of Guyana identifies the high cost of energy as an impediment to development and competitiveness and recognizes that electricity losses are a key factor leading to this cost structure. To address the high electricity losses and high costs, the GOG through the GP&L has targeted loss reduction as a priority. Support for this priority is included within the framework of the Unserved Areas Electrification Program (UAEP) funded by the IDB. The initiatives undertaken by GP&L to date include: the replacement of defective meters; removal of illegal connections; technical assistance for monitoring loss reduction activities; and implementation of a new customer information system.

1. Replacement of Defective Meters

- 1.31 In an effort to stem losses, GP&L has implemented a program involving inspections of over 90,000 residential meters and has replaced over 15,000 defective meters. GP&L plans to replace an additional 75,000 deficient meters with the old interface over the next five years. In 2007 GP&L intends to introduce a new meter standard for its large customers that is heavily reliant on more sophisticated technology than that which is currently in use. GP&L has procured 500 remote meter and installed over 200. This exercise will be extended to include another 2,300 installations over the next two years. The utility also intends to introduce pre-paid meter technology in the near future for domestic customers.

2. Illegal Connections

- 1.32 A successful and intense campaign of constant and sustained raids to target illegal connections includes a specialized task force with the assistance of the metering department and police officers. In May 2007, the Office of the Prime Minister devolved the authority to initiate prosecutions for the theft of electricity under the Electricity Sector Reform Act directly to GP&L. The Prime Minister has also initiated measures to introduce regulations enable GP&L to relocate meters to accommodate their servicing requirements. These initiatives have resulted in over 200 pending prosecutions which will be resolved in the commercial and Magistrates courts.

3. Technical assistance in monitoring loss reduction activities

- 1.33 As part of the Unserved Areas Electrification Program achievements, the GOG has approved the hire of an external consulting firm by GP&L to provide support over the next two (2) years – June 2007 to June 2009. The consultancy is to provide management support and services to GP&L in the areas of: reduction of commercial losses associated with the operation of the company; administrative

and operational organization of loss reduction teams; and support in implementation of an investment program related to commercial loss reduction (customer information system). The consulting firm will be involved in both the development and implementation of the strategy. In the development phase, the consultant will recommend a strategy to monitor, measure and evaluate the quantitative/qualitative impact of the commercial loss reduction program. During the implementation phase, the consulting firm will coordinate the implementation of the program and monitor the progress of GP&L's loss reduction activities. This monitoring process will include a field assessment.

4. New customer information system

- 1.34 GP&L has commenced the process of tendering for a new commercial information system to increase transparency, security and the quality of information obtained from its customers. Expressions of Interest from system suppliers have been received and are being evaluated. In preparation for the new system, GP&L has been verifying the accuracy of customer information and making updates as necessary. Other complementary actions are to be initiated during the implementation phase of the aforementioned technical consultancy.

H. Bank Experience in the Power Sector in Guyana

1. Electricity Sector Program (ESP) (986/SF-GY)

- 1.35 In 1996, the Bank funded the \$45 million PBL Electricity Sector Program. The objective of this operation was to improve the efficiency of the power sector and to provide more reliable and affordable service to the consumers. These improvements were expected to be achieved through financial and institutional reforms of the Guyana Electricity Corporation (GEC) and the creation of a legal, regulatory, and environmental framework conducive to successful public-private partnerships.
- 1.36 The Program facilitated the entry of private investors to the sector, privatization of the GEC (§1.15 and §1.35) and new legislation governing the sector (ESRA, PUCA). Among the outputs achieved under the Program are the implementation of the institutional arrangements for monitoring and enforcing environmental aspects of sector operations and the approval by the Guyana EPA of guidelines and criteria for environmental assessment of operations. In addition, the EPA prepared an environmental guide for investors in the power sector which provides a summary of the legal/regulatory framework. This information facilitates investment as it sets forth the process to be followed during the project cycle, the relationships between and among the required environmental activities and permits, the licensing process, and required studies.
- 1.37 Lessons learned from the Electricity Sector Program that are relevant for this Program include the following:

- a. The autonomy of the PUC should be strengthened through specific actions so as to increase its effectiveness;
- b. An adequate legal, regulatory and institutional framework is needed to ensure that government policies are implemented, with such policies accompanied by practical measures related to institutional strengthening; and
- c. Strong and sustained commitment by government to policy and institutional reform is critical to the success of any such Program.

2. Unserved Areas Electrification Program (UAEP) (1103/SF-GY)

- 1.38 As a continuation of the reforms initiated by the Electricity Sector Program, in 2002 the Bank sought to support power sector development through the US\$34.4 million UAEP. The US \$27.4 million loan was designed to extend service to new users within areas currently served by GP&L and to extend services to other areas. The primary geographical focus for new users was along the coastal strip and provides also for demonstration projects to be delivered to un-served areas in the hinterland.
- 1.39 Progress in the execution of the UAEP has been made in the following areas: (i) 12,200 new connections; (ii) a hinterland electrification study completed in October 2005 and demonstration projects have commenced; and (iii) a loss reduction prioritization study was completed and loss reduction management services have been procured. In accordance with the parameters of the loan, GOG has also submitted a GP&L Re-privatization Policy & Strategy which reaffirms GOG's decision not to privatize GP&L in the medium term due to the current sector challenges. The policy measures under this PBL complement and are consistent with the recent results achieved in the UAEP operation.

3. Strengthening Electricity Sector Regulation in Support of Private Investment (TC0011035)

- 1.40 In 2003 the MIF funded a Technical Cooperation to Strengthen Electricity Sector Regulation in Support of Private Investment (TC0011035) for the purpose of increasing private investor participation and establishing competition in the electricity sector. Its operational objectives were twofold: (i) to consolidate and further develop the legal/regulatory/institutional framework to facilitate private investment, through transparent and consistent rules and procedures for independent power producers; and (ii) to strengthen the PUC's capacity to effectively apply this framework and evaluate private investors' proposals in the power sector.
- 1.41 Progress made to date on this TC include: (i) completion of an IPP solicitation and Power Purchase Agreement (PPA) preparation manual; (ii) completion of model PPA for thermal and hydroelectric power stations; and (iii) training of PUC staff for best practices in solicitation and regulation of IPPs. Progress on the

second component can be summarized as follows: (i) completion of recommendations for improvements in administrative and analytical capacity; (ii) completion of training workshops; and (iii) completion of recommendations for identifying networking activities and enhancing public consultation communication. Several of the recommendations and measures established in the TC will be carried forward in this operation, such as the amendment of PUC legislation related to monitoring, reporting and IPP participation, implementation of PUC capacity enhancement, and improvement to GP&L quality of service collection and reporting to PUC (§2.3).

1.42 Previous Bank loans in the power sector in other countries have proven valuable in providing additional lessons for this Program. The lessons learned have been incorporated in the analysis and design of this operation. An investment loan in Mexico supporting Energy Efficiency (1072/OC) recommends flexibility in program designs and structures to permit the operation to adapt to changing circumstances. In addition, an appropriately staffed Executing Agency is needed to complete the requirements of a loan. Another recent Bank loan in Colombia, Electric Sector Program (1159/OC) recommends:

- a. Loan conditions should be associated with identifiable and verifiable indicators so that disbursement can be carried out swiftly and without controversy.
- b. It is critical to conduct a detailed evaluation of the operating capacity of the Executing Agency
- c. Sectoral reforms should be complemented with: (i) financing program that suits the objectives; (ii) sector development strategy in congruence with the program's conditions; and (iii) the importance of an appropriate legal/regulatory/institutional framework that can support the implementation of the government's policies.
- d. Programs should be preceded by a dialogue at the highest levels for agreement on objectives and strategies.
- e. Technical cooperation can assist the Executing Agency to fulfill the required conditions.
- f. Consensus on policies and reforms should be reached prior to approval of the loans so as to avoid paying loan commitment fees for extended periods of time.

I. The Country & Sector Strategies of the Bank

1.43 The Country Strategy for Guyana (GN-2228-1 and its update GN-2257-9) promotes growth oriented programs and policies. Reinforcement through the strengthening of governance, security and justice, public sector systems and social

programs will contribute to poverty reduction in Guyana. To implement the strategy, emphasis is placed on three pillars: achieving sustainable economic growth; improving governance and public sector efficiency; and strengthening social programs.

- 1.44 The Electric Energy Sector Policy of the Bank (OP-733-1) seeks to contribute to economic and social development through financing of projects that will increase the availability and reliability of electricity. To accelerate growth within the energy sector, the Energy Policy (OP-733) and the Public Utility Policy (OP-708) support involvement in institutional strengthening activities to help improve the technical, administrative and operational capacity and governance of the institutions that are directly or indirectly engaged in the development, production, supply, utilization and control of energy.
- 1.45 The Program and the Sustainable Energy and Climate Change Initiative (SECCI). The SECCI initiative was approved by the Bank in March 2007. Among its objectives is the increase in the energy efficiency of the power sector and the support of renewable energies. The components of the Program are the reduction of electricity losses, energy framework reform and capacity building of the power utility company. Reduction of electricity losses presents potential opportunities for SECCI when dealing with technical losses. The program's components focus on non-technical losses which constitute 70% of overall losses. Nevertheless an assessment on the potential emission reductions of Guyana power sector initiatives was carried out during project preparation.
- 1.46 It was concluded that SECCI could be active in a subsequent program where technical losses were addressed in line with SECCI Pillar 1, Energy efficiency and renewable energy. In addition to (i) Technical losses, the SECCI could participate in support of other power sector initiatives in Guyana engaging in projects related to (ii) Substitution or upgrade of old generators and (iii) Fuel switch from fuel oil and diesel to natural gas. SECCI Pillar 3, Carbon finance, actively adds a new revenue source to projects where greenhouse gas emission occur.
- 1.47 This Program will address the areas identified in both the country and sector strategies. Improvements in the sector should contribute to an enabling environment for the private sector and to the country's competitiveness. The Program also supports improvements in the power utility company in addressing operational and strategic weaknesses so as to expand access to electricity.

J. Coordination with other Donors

- 1.48 IDB is the primary source of development finance for Guyana. In 2006, the Bank's share of total external finance was 60 percent, 8 percent of the current portfolio has been allocated for the development of the power sector. To date no other donor other than the United Nations Development Programme has placed any power program in their pipeline.

- 1.49 The IMF has also identified high energy cost and sub-optimal service quality as relevant factors that may contribute to hinder growth in Guyana. The Bank and IMF have been holding discussions on this matter aimed at analyzing the problem and identifying potential solutions and priorities.
- 1.50 An Integrated Fiduciary Assessment (IFA) will update the Country Financial Accountability Assessment and Country Procurement Assessment Reports that were previously undertaken by the IDB and World Bank and assist the GOG in its on-going efforts to strengthen its fiduciary systems, practices and accountability arrangements. The IFA will take stock of progress attained since the previous assessments, assess the performance of Guyana's fiduciary systems -establishing an objective and verifiable baseline- and produce a comprehensive action plan aimed at strengthening Guyana's Public Financial Management. The IFA will be conducted as a collaborative effort between the GOG/IDB/WB/EC.

K. The Program Strategy

- 1.51 Guyana's power sector continues to experience significant challenges (§1.24-§1.29). Nonetheless, the GOG and the utility have made considerable progress in addressing particular challenges, in meter replacement, illegal connection removal, electricity losses monitoring, and information systems establishment (§1.30-§1.34). The Bank has taken an active role in supporting that progress by funding earlier projects, some of which are providing important lessons for this Program (§1.37-§1.42). This Program will help continue the initiatives established in the previous loans, and build upon their results and impacts. Both Guyana and the Bank share a sector strategy that identifies the need to address the supply and costs of reliable energy and the important link this sector has with competitiveness (§1.19-§1.22 and §1.43-§1.44.). This Program supports activities in the power sector that will promote an enabling environment to encourage electricity loss reduction efforts and efficiency by supporting institutional, legal and regulatory reforms; establishing planning and priority setting in the sector; and strengthening the power utility company capabilities in corporate governance, transparency and accountability.
- 1.52 The Program includes several policy and institutional reforms that have a critical impact on the power sector. These reforms have been designed with input from the utility company, the Ministry of Finance, and the (OPM), and represent a unified approach to improve the current power sector environment with the long-term goal of increasing the overall competitiveness of Guyana.
- 1.53 This Program supports policy formulation which will assist GP&L and other stakeholders to achieve basic efficiencies in the power sector. The Program complements the UAEP which finances key investments to reduce losses. To reinforce the reform process initiated in the Bank operations ESP and UAEP, a PBL is considered the suitable instrument to achieve the Program objectives.

II. THE PROGRAM

A. Objective and description

- 2.1 The Program is envisioned as a three tranche PBL, within a medium-term framework of institutional reform and was developed in accordance with the New Lending Framework Assessment Report (GN-2200-13) and the Guidelines for preparation and implementation of PBLs (CS-3633). A fundamental condition precedent to disbursement of each of the loan tranches will be adherence to a sound macroeconomic framework as set out in the sector policy letter. Other conditions precedent to disbursement, will also be in effect.
- 2.2 The overall objective of the Program is to support the efforts of the OG to promote a more sustainable and efficient energy sector. In order to achieve this objective and in line with the identified challenges and program strategy (§1.24-§1.29 and §1.51-§1.53), the PBL will support three components: the promotion of sustainable reduction of electricity losses; institutional, legal, and regulatory measures to contribute to the sustainability of these reductions; and the strengthening of the capabilities of the power utility company. The specific measures to be taken to achieve the objective of the Program are contained within the agreed upon Policy matrix (Annex 1). A brief description of each program component is set forth below.
- 2.3 **Promote institutional, legal and regulatory reforms:** The objectives of this component are: (i) to strengthen the regulatory and legal framework to contribute to a more effective power sector with increased efficiency, transparency and accountability; and (ii) to contribute to a more efficient and effective development of the power sector with a long term strategy. Achievement of these objectives is expected to be completed through activities, including among others: enactment of updated legislation and license; institutional strengthening of the Public Utilities Commission as related to the power sector; clarification of the level of contingent liabilities of the utility company; establishment and implementation of a new tariff structure; establishment and implementation of revised quality of service reporting obligations of the utility company; implementation of measures to improve the quality of operational and customer service; and the establishment of a new power sector policy.
- 2.4 **Strengthen the power utility company capabilities:** The objective of this component is to strengthen the utility's capabilities to manage a loss reduction program by contributing to improvements in corporate governance, transparency and accountability. Achievement of the objective is expected to be completed through activities including, among others: establishment of new corporate bylaws and/or other corporate instruments to include, a revised Board composition with technical director, corporate governance standards and procedures, corporate codes, and operating procedures.

- 2.5 **Promote sustainable electricity loss reductions:** The objectives of this component are: (i) to improve GP&L's ability to bill, collect and monitor energy consumption; (ii) to coordinate consistent efforts to allow for effective overall electricity loss reduction; and (iii) to build consensus on the benefits of a sustainable power service. Achievement of these objectives is expected to be completed through specific actions. Some of these actions result from activities under the UAEP such as the acquisition and implementation of a new billing system; consulting firm services to monitor and advise on loss reduction activities; and implementation of actions to control electricity losses. Other activities include the preparation and implementation of a loss reduction priorities plan and implementation of an educational program to reduce non-technical losses and promote demand management.
- 2.6 The PBL will be disbursed in three tranches. The selection of a three-tranche approach and disbursement structure considers the phasing of the conditions, provides an incentive to push the reforms forward, and mitigates execution risks. The first tranche establishes agreements on the reform agenda and defines the scope of the action to be undertaken. The second tranche focuses on the approval and implementation of the reforms. The third tranche operationalizes the reforms within the sector's activities. The conditions for the tranches are summarized below and set forth in detail in the Policy Matrix (Annex 1). The tools to verify achievement of the conditions are outlined in the Means of Verification Matrix. The outputs, outcomes, indicators and assumptions of the Program are set forth in detail in the Results Matrix.

B. Conditions for disbursement of tranches

1. First tranche (US\$2 million)

- 2.7 The disbursement of the first tranche will be conditioned on adherence to a sound macroeconomic framework as set forth in the objectives of the Program and in the sector policy letter, and compliance with the following conditions:
- a) Promote institutional, legal and regulatory reforms**
- 2.8 Agreement on the fundamental issues to be addressed in a study for an updated and enhanced regulatory and legal framework for the power sector. During the process of project preparation, agreement was reached with respect to the specific issues to be analyzed. Issues agreed upon include, but are not limited to, the following: (i) development of a strategic plan for PUC allowing it to formulate goals, staffing, financial resource requirements, skills required, and incorporation of applicable changes stemming from updated legislation and licenses, to be updated yearly; (ii) PUC funding level to be consistent with financial requirements of its activities; (iii) establishment of appropriate enforcement mechanisms to enable PUC to achieve its mandate; (iv) appointment and termination process for PUC regulators based on transparent and objective

criterion and procedures; and (v) clear and transparent selection, remuneration, and termination procedures for external experts.

- 2.9 Agreement on the approach and measures to be included by PUC in an Strategic Plan to improve PUC's regulatory capacity. In a similar manner agreement was reached during the development of the project related to these topics including: (i) strategic plans – formulation of goals, financial resource requirements, staffing and skill requirement, costs, and institutional strengthening requirements with annual updates; (ii) annual plans to address operative implementation in accordance with the strategic plan; (iii) securement of detailed and sufficient annual budget allocations for training, national consultation and other public participation measures, linked to the Annual Communication Plan. Such budget shall address the financial requirements to address the following activities as recommended in the consultancy report under Strengthening Electricity Sector Regulation in Support of Private Investment TC; (iv) develop & disseminate pamphlet – PUC's Role in the Electricity Sector; Develop and Disseminate Pamphlet or Advisory Sheet – Rights and Responsibilities of Electric Consumers and suppliers in Guyana; (v) include a Summary Report on GP&L's Performance in its Annual Report; (vi) minimum requirement of two hearing per year on GP&L Performance; (vii) development of public consultation guidelines; (viii) improvements in complaint handling process; expanded Annual Report published in a timely manner; (ix) development of policy and procedures for confidentiality of information; (x) establishment of procedures for hearings, open meetings, and issuing decisions; (xi) development and implementation of the website; (xii) maintenance of a database of individual customer consumption information without identity disclosure; (xiii) development and maintenance of a registry of stakeholders, including consumer groups, government contacts, media representatives and organizations, business groups such as chambers of commerce, and any other interested party, as available; (xiv) schedule regular and reasonably frequent meetings with the responsible Minister and GEA; (xv) creation and establishment of learning/exchange activities; (xvi) utilization of a core set of networking resources for PUC professional staff to keep abreast of the latest developments in the regulation of public utilities; and (xvii) development of an Annual Communication Plan.
- 2.10 Identification of issues to be addressed in a study to update the legislation of the electric sector and GP&L License and any other appropriate implementing instrument. Agreement was also made during the project evaluation and preparation process with respect to these issues, including among others: (i) reporting with specific periodic reporting requirements and mechanisms from GP&L to PUC, OPM and the public that are transparent, functional, and applicable; (ii) tariff and rate of return - examination of current tariff structure to balance interests of multiple stakeholders interest and a review of the mandate related to the shareholder guaranteed rate of return; and (iii) accounting methodology – consistent with best international practices, accounting by lines of business in financial reporting and D&E plans. The D&E plans are to include a

comprehensive listing of requirements needed to support D&E plans related to legislation, inclusion of expansion plan, inclusion of planned acquisition of new capacity, loss reduction strategies, plans to regain industrial customers, and grid expansion or infill plans, inclusion of contingency plans, role of PUC in plans, with such plan developed within a context of a 15 year planning horizon; (iv) Governance - appropriateness of governance structure and governance administrative tools required for utility; (v) Categorization of GP&L – Harmonization of legislation to ratify GP&L categorization as a public company limited by shares and the associated accounting implications for the category; (vi) IPP review - stage and level in which the PUC is to become involved in IPP review/approval; (vii) Loss reduction - PUC involvement in reviewing and enforcing electricity losses measures.

- 2.11 Fundamental principles agreed upon, on inputs for a study of the utility's revised tariff structure. Agreement on such inputs already include, among others: (i) Consistency with adequate revenue recovery; (ii) Relationship of production and input costs to the setting of tariffs; (iii) Equitable with customers needs and preservation of utility's financial sustainability; (iv) Provision and guidelines for periodic review and update; (v) Rate of return.
- 2.12 Fundamental issues agreed upon, with respect to inputs for a study to design a data collection and reporting system for quality of service. Agreements were reached as to include , among others: (i) Quality of supply standards including: Customers interruptions, Voltage regulation, Frequency regulation, Generation Availability, Losses; (ii) Customer Supply standards including: Customer Complaints, New Connections, Reconnections, Billing, Services; (iii) Financial Standards; (iv) Business Procedures; (v) data collection and reporting system defines the methodology, responsibilities, actions and frequency of collecting and reporting on the quality of service.
- 2.13 Fundamental issues agreed upon, with respect to inputs to be included in a study to prepare a power sector policy. Such agreed issues include, among others: (i) Government's statement of its goals, priorities and implementation strategies for the sector as regards the following matters: Energy balances and forecast-current balance, future projections, suppliers short and long term plans; (ii) Sector organization, management and regulation - structure of sector, role of PUC, privatization options; (iii) Primary energy sources - oil, renewables; (iv) Energy efficiency; (v) generation technology- technological priorities; (vi) Network issues- national grid unification, large self-generator connections, large hydro connections, cross border transmission; (vii) Commercial issues- pricing options for electricity service, long range program for maintaining good system management; (viii) Financial issues- financing of sector.

b) Strengthen the power utility company capabilities

- 2.14 Agreement on principles to be included in a study to prepare GP&L corporate bylaws and other corporate instruments to enhance its governance, transparency

and accountability with such principles to include, among others: Incorporation of internationally accepted corporate governance standards and procedures in the utility's corporate administrative tools to the extent suitable to the Guyanese environment, including: Corporate bylaws, Corporate governance standards and procedures, Corporate governance code, Operating procedures, Board composition with technical director.

c) Promote sustainable electricity loss reductions

- 2.15 Request for proposal to procure Customer Information System software (including new billing module) called for and proposals submitted for consideration. Consulting firm hired to monitor the electricity losses and to advise on the loss reduction plan implementation hired. Utility's Board to approve loss reduction plan and monitor its execution by the utility's management. Electricity losses to be under 34 percent based on a 12 month moving average.
- 2.16 Fundamental issues agreed upon, are included in an action plan for an educational program to reduce non-technical losses and promote demand management with such inputs to include: Action plan for an educational program to promote reduction of non-technical losses and demand side management.

2. Second tranche (US\$5 million)

- 2.17 The disbursement of the second tranche will be conditioned on adherence to a sound macroeconomic framework as set forth in the objectives of the Program and in the sector policy letter, and compliance with the following conditions:

a) Promote institutional, legal and regulatory reforms

- 2.18 This component comprises the following conditions: (i) National Assembly approves updated legal and regulatory framework (PUCA/other related legislation) which is consistent with recommendations accepted by borrower and Bank of study resulting from outputs of Tranche 1; (ii) PUC prepares and approves a strategic and annual plan; (iii) National Assembly approves updated electric sector legislation (ESRA) which is consistent with recommendations accepted by borrower and Bank of study resulting from outputs of Tranche 1; (iv) An updated power utility's Licence is consistent with recommendations accepted by borrower and Bank of study resulting from outputs in Tranche 1 and with updated legislation; (v) PUC pending fine on utility resolved; (vi) Power utility's Board approves a revised tariff structure based on the recommendations accepted by borrower and Bank of a study or analysis completed following principles agreed in Tranche 1; (vi) Data collection and reporting system established and survey of utility's performance executed on a quarterly basis and results are published on its website; (vii) Utility establishes and commences execution of a plan to improve its performance and quality of service (based on performance targets set in GP&L's Approved Operating Standards &

Performance Targets (OSPT); (viii) Power sector policy approved by Cabinet and published in OPM website.

b) Institutional Strengthening of GP&L

- 2.19 The utility's new corporate bylaws and other corporate instruments consistent with outputs of Tranche 1, as appropriate and within the Guyana context, approved by utility's Board and/or shareholders, as appropriate.

c) Promote sustainable electricity loss reductions

- 2.20 This component comprises the following: Customer Information System software (including new billing module) acquired and installation initiated; Consulting firm monitors electricity losses ; Utility's Board continues to monitor execution of loss reduction plan by the utility's management;
- 2.21 Electricity losses to be under 24.5 percent based on a 12 month moving average;
- 2.22 Utility implements an educational campaign consistent with outputs of Tranche 1, to reduce non-technical losses and promote demand side management as part of the utility's loss reduction action plan. Establish Children's Education Campaign – School Presentations.

3. Third tranche (US\$5 million)

- 2.23 The disbursement of the third tranche will be conditional on adherence to a sound macroeconomic framework as set forth in the objectives of the program and in the sector policy letter, and compliance with the following conditions:

a) Promote institutional, legal and regulatory reforms

- 2.24 Updated legal and regulatory framework (PUCA/other related legislation) is fully enacted with operating regulations, where necessary, implemented for at least six consecutive months; PUC capacity enhanced in accordance with strategic and annual plans approved in Tranche 2, as such plans are in effect through the date of the disbursement request; Updated electric sector legislation (ESRA) is fully enacted with operating regulations implemented for at least six consecutive months; Updated power utility's Licence is implemented for at least six consecutive months; Approved tariff structure is implemented for at least six consecutive months; Utility is compliant with the plan for quality of service established in Tranche 2, including implementation of data collection and reporting system, and executes quarterly surveys published on its website; Utility's Development and Expansion Plan (D&E Plan) consistent with relevant aspects of the power sector policy.

b) Strengthen the power utility company capabilities

- 2.25 Utility's new corporate bylaws and/or other corporate instruments implemented for at least six consecutive months.

c) Promote sustainable electricity loss reductions

- 2.26 New Customer Information System (including billing module) installed and operating; Utility monitors electricity losses in accordance with methodology applied by the consulting firm; Utility's Board continues to monitor execution of loss reduction plan by the utility's management; Utility continues to implement an educational campaign to reduce non-technical losses and promote demand side management as part of the utility's loss reduction plan
- 2.27 Electricity losses to be under 20.4 percent calculated on a 12 month moving average.

C. Cost and financing

- 2.28 The overall Bank resources allocated to the Program are US\$12 million (FSO US\$6 million and OC US\$6 million), with a first tranche of US\$2 million, second tranche of US\$4 million, and the third tranche of US\$6 million.

III. PROGRAM EXECUTION

A. The borrower, guarantor and executing agency

- 3.1 The borrower will be the Co-operative Republic of Guyana. The Ministry of Finance (MOF) will be the executing agency for the Policy Based Loan. A Project Executing Unit (PEU) will be housed within the Office of the Prime Minister and will provide technical support to the Ministry of Finance for the execution and administration of the policy based loan. A Principal Project Coordinator within the OPM will coordinate project execution. The PEU responsible for the execution of the UAEP also will be responsible for this Program for purposes of consistency and familiarity with the fundamentals of the Program.

B. Project Execution and Administration

- 3.2 The PEU will be responsible for (i) collecting, assessing and submitting the technical, legal and administrative information and documentation necessary for program execution; (ii) coordinating and monitoring the activities needed to implement the policy measures, with professional staff assigned for this purpose in the respective sector entities; (iii) providing the necessary technical and financial resources for preparing and establishing consensus on the policy measures and ensuring their timely implementation; and (iv) coordinating the collection, analysis and submission to the Bank of supporting information on

compliance with the policy measures and monitoring compliance with the project conditions.

- 3.3 The PEU will coordinate the Program with the PUC and utility company and will serve as the single point of contact with the Bank on administrative matters regarding compliance with disbursement, reporting, financial statements and evaluation. Consultant support will be obtained as required to ensure that the project meets its objectives. Subject to the respective legal authorizations, the GOG will provide technical and financial resources for the timely performance of the policy measures of the Program, including the relevant communication and dialogue activities.

C. Procurement of Goods and Services

- 3.4 As a policy-based loan, no procurement considerations apply. The procedures for sector loans, as established in documents OA-330 and GN-2200-13, include disbursements to be made against satisfactory implementation of agreed upon policy changes, including compliance with any specified tranche release conditions established in the Policy Matrix and the submission of acceptable supporting documentation. Funds shall be disbursed once the borrower has presented evidence satisfactory to the Bank that all contractual obligations have been met for the respective tranche.
- 3.5 The borrower is responsible for presenting several documents to fulfill tranche conditions. The costs associated with the consultancies to undertake the studies and develop the documents are borne by the authorities, with funding under the UAEP program. In addition, in support of the PBL, activities under the parallel TC Power Sector Assessment and Development Strategy GY-T1017 will generate required studies to support of the ongoing reform dialogue and analysis. Bank procurement rules governing the UAEP and TC are applicable to these consultancies.

D. Execution period and disbursement schedule

- 3.6 Release of funds from each tranche require the satisfactory implementation of agreed upon policy reforms and institutional changes, including compliance with any specified tranche disbursement conditions, as well as the maintenance of an appropriate macroeconomic policy framework.
- 3.7 Due to the nature of the Program, it is expected that the conditions for the first disbursement will be fulfilled shortly after the Program is submitted for consideration of the Board of Executive Directors.
- 3.8 It is expected that the conditions associated with the release of the funds from the second tranche will be fulfilled in the 18 months after the disbursement of the first tranche. The conditions associated with the third tranche are expected to be fulfilled within the 24 months following the disbursement of the second tranche.

E. Monitoring and evaluation

- 3.9 The Results Matrix describes the expected outputs, outcomes and impact indicators for the program, with their respective baselines.
- 3.10 The borrower is responsible for the collecting and preparation of the information required for Program monitoring and evaluation. The costs associated with the collection and processing of this data will be borne by the Borrower. The executing agency will compile, store and maintain at its own premises all the information, indicators and parameters, including the semiannual reports, technical reviews during the implementation stage and the final evaluation, as necessary to help the Bank prepare the project completion report.

IV. VIABILITY AND RISKS

A. Institutional viability

- 4.1 The Ministry of Finance will serve as the executing agency and the Office of the Prime Minister will be the Project Executing Unit . The Bank has the same execution arrangement as under the UAEP program which has thus far been successful.
- 4.2 The OPM has broad authority over issuance of operating licenses, IPPs, oversight of GP&L expansion plans, oversight of environmental compliance by electricity license holders, issuance of variances or modifications in existing power sector licenses; and implementation of specific programs to expand or improve power service, including the UAEP.
- 4.3 The OPM power unit is staffed by a full-time coordinator, reporting to the Prime Minister (PM). This coordinator is responsible for staffing special purpose teams to address specific issues and ongoing programs. For the UAEP, the OPM has established a team with representatives from GP&L and the Ministry of Finance, for technical and financial expertise, respectively. The OPM has a broad understanding of both the legal environment in which the power sector operates as well as the specific issues of technical, financial and administrative performance of the GP&L and other license holders. Detailed technical oversight and expertise is not a responsibility of this office and the OPM relies on its project teams (e.g., the UAEP team) for much of its technical and financial oversight activities. Since the PM is the lead minister for the power sector, a model of convening *ad hoc* working groups has allowed the OPM to maintain oversight without building a large organization. In those areas requiring decisions on licenses, GP&L D&E Plans approval and financial agreements, the OPM has processed the required information flow expeditiously and effectively. New programs in the sector, such as those supported by the IDB, have a single point of contact that is well-informed and administratively competent. Since the functions of the OPM in the power

sector are vested in only two persons, the PM and the power unit coordinator, there are few bureaucratic complications in its operations.

- 4.4 The PUC was established as an independent oversight Commission with responsibility for the power, water and telecommunications sectors. In the power sector, the PUC has responsibility for determining the accuracy of tariffs calculation where the Independent Firm of Accountants issues a Certificate of Non-Compliance addressing service and tariff complaints through enforcement and penalties. They also have a secondary role in reviewing license issuance and modification and monitoring compliance, reviewing GP&L's D&E Plan, and monitoring Operating Standards and Performance Targets. Primary among the difficulties faced by the PUC is the ambiguity of the legal supervision rights of the Commission with regard to certain key performance and financial matters, including budget, financial information from GP&L, and incentives for improved GP&L performance. In addition, the shortage of technical staff impacts its regulatory functions. To address these issues, the Program calls for institutional strengthening of the PUC, including the development of a strategic plan. In addition, the Program supports the resolution of funding issues of the PUC as a part of its legislative reform in the governing documents.
- 4.5 The EPA is the lead agency in the country for enforcing environmental standards and regulations. The EPA also drafts a monitoring plan for approved projects, making the monitoring process a legally binding element of the project permit. Enforcement resources, if needed, are sourced from the Office of the Attorney General. The EPA plays a minor role in power sector governance. This is likely to continue until or unless very large new projects are presented for consideration.

B. Socioeconomic viability

- 4.6 Given Guyana's very high electricity losses, an overall outcome of sustained reduced electricity losses at the utility company through implementation of activities under this Program is expected to improve the financial situation of the utility. In turn, this would bring improvements in the investment climate and promote economic growth. The combination of the policy measures and investments under the UAEP for loss reduction efforts are expected to create a suitable environment in which to rebalance tariffs that reflect stakeholders' interests and improve the quality of service provided by the utility. Both are envisioned results that will enable the larger customers to return to the utility rather than supply their own power. Furthermore, a concerted effort by the utility to educate the public on the far reaching impacts of illegal electric connections, the main cause of the high electricity losses, is expected to result in an improved social structure that condemns theft, and an improved perception of the utility and the necessity of its services.
- 4.7 Modifications to the regulatory framework are expected to improve transparency and governance and to strengthen the planning process for the sector. This should result in increased development of the power sector and participation of

independent private providers of electricity. The referenced modifications, to the regulatory framework, in combination with improved operations at the utility, are expected to contribute an improved competitiveness profile for Guyana.

C. Environmental viability

- 4.8 There are no investments to be financed as a direct result of this Program. This Program will focus on addressing policy reform and institutional change efforts as well as corporate decisions such as implementing a new billing system and activating new meters. There are no environmental impacts expected and therefore, it is not necessary to undertake special environmental and social studies. According to the Environmental and Safeguard Compliance Policy (OP-703), this operation is not required to be classified. During the preparation of the operation, the Project Team evaluated the enforcement capacity of the EPA as related to the energy sector and found that the EPA's enforcement capacity is satisfactory in the context of this operation.

D. Benefits and beneficiaries

- 4.9 Following completion of the Program, it is expected that consumers' behavior will contribute to lower levels of non-technical losses and that social recognition of energy issues will increase. Furthermore, it is expected that institutional, legal and regulatory reforms will a more transparent and efficient power sector environment within five years of Program execution and that the Program will yield consistency of power system/sector development and expansion with power sector policy. Together, these initiatives will cause electricity losses experienced by the utility to be reduced significantly on a sustainable basis. Perception of improved quality of service of electricity supply by utility may entice large consumers to return to GP&L service. The long term effect of improved governance and oversight within the utility, and electricity loss reductions, will also be an enhanced environment for investment to increase Guyana's competitiveness.

E. Risks

- 4.10 The process of preparing the Risk Assessment involved reviewing of material, drafting of a questionnaire, and interviewing stakeholders. The risk assessment identified possible problem areas related to the execution of the Program. The highest risk area identified was the possible difficulty in curbing the electricity losses. Electricity theft could rise due to different reasons, being increased electricity costs a likely one if oil prices increase beyond expectations. This factor could impact adversely the utility's achievement of loss reduction targets. A secondary risk identified was the possibility for study outcome to vary significantly from the anticipated results. Given that the structure of the Program and the assumptions related to its achievements are predicted upon certain anticipated conclusions, there exists a degree of uncertainty and risk ex ante the program implementation. Lower risk areas identified included shortage of skilled

technicians for meter replacement; GP&L's reluctance to commit resources to change bylaws; increased political involvement and public pressure if too many prosecutions; inaccuracy of loss targets; vulnerability of miscommunication due to high number of involved parties; and delivery deadline of GP&L and PUC action plans being too short.

- 4.11 To address the risk of escalated electricity theft, GP&L will continue to carry out routine checks and prosecutions of electricity theft. It is also expected that a revisited tariff structure would provide tools to better manage the demand side. In addition, it will complement this activity with a public education campaign on the characterization of electricity losses and inefficiencies and subsequent cost increases to consumers due to theft. Mitigation measures related to the possibility of material variance between the anticipated recommendations of the studies and their final implementation include the agreement on fundamental issues and terms of reference based upon previous sector assessments and analyses of the sector, its possibilities and limitations. To address some of the other risks, GP&L will collaborate with technical vocational training institutions to train interested candidates; OPM will exercise its legal authority to persuade GP&L to comply with the agreed bylaw changes; GP&L's public education campaign will highlight the implications of electricity theft and the risk of prosecution; loss reduction targets are consistent with monitoring firm findings and have received consensus from GP&L and the GOG; and the OPM program coordinator will hold regular progress meeting with stakeholders.

V. POLICY MATRIX

- 5.1 The disbursement conditions for each tranche are detailed in the Annex I.

POWER SECTOR SUPPORT PROGRAM (GY-L1014)

ANNEX I - POLICY MATRIX

Objectives	1st tranche US\$2 MILLION	2nd tranche US\$ 5 MILLION	3rd tranche US\$ 5 MILLION
Goal of the program: To contribute to promote sustainable electric loss reductions efforts supported by an updated regulatory and legal framework and an institutionally strengthened power utility company.			
Macroeconomic Framework			
The Macroeconomic framework of the borrower is consistent with the objective of the program and guidelines set forth in the sector policy letter.			
Promote Institutional, Legal and Regulatory Reforms			
Strengthen the regulatory and legal framework to contribute to a more effective power sector with increased efficiency, transparency and accountability.	<p>1.1 Fundamental issues agreed upon, with such issues to be analyzed in a study to update the legal and regulatory framework of the power sector. These issues are to include, among others:</p> <ul style="list-style-type: none"> ▪ Strategic plans - PUC to formulate goals, staffing, financial resource requirements, skills required, outside skill requirements, and incorporation of applicable changes stemming from updated legislation and licenses, to be updated yearly. Annual plans will address operative implementation according to strategic plan. ▪ PUC funding – determine appropriate funding required by PUC activities. ▪ Enforcement mechanisms - establishment of enforcement mechanisms to enable PUC to achieve its mandate ▪ Conditions for appointment and termination of PUC regulators based on a transparent and objective criteria and procedure. ▪ Clear and transparent selection and remuneration procedures for external experts; <p>1.2 Fundamental approach and measures agreed upon, which are to be considered by PUC in the preparation of a Strategic Plan to improve PUC's regulatory capacity and including, among others:</p> <ul style="list-style-type: none"> ▪ Strategic plans - formulate goals, financial resource requirements, staffing and skill requirement, costs, and institutional strengthening requirements to be updated yearly. Annual plans will address operative implementation according to strategic plan. ▪ Ensuring detailed and sufficient annual budget allocations for training, national consultation and other public participation measures, linked to the Annual Communication Plan and include the following activities recommended by the Mercados report under Strengthening Electricity Sector Regulation in Support of Private Investment TC: ▪ Develop & Disseminate Pamphlet – PUC's Role in the Electricity Sector: ▪ Develop and Disseminate Pamphlet or Advisory Sheet – Rights and Responsibilities of Electric Consumers and suppliers in Guyana: ▪ Include Summary Report on GP&L's Performance in its Annual Report: ▪ Hold at least Two Hearings Annually on GP&L Performance 	<p>1.1 National Assembly approves updated legal and regulatory framework (PUCA/other related legislation) which is consistent with recommendations accepted by borrower and Bank of study resulting from outputs of Tranche 1;</p> <p>1.2 PUC prepares and approves a strategic and annual plan.</p>	<p>1.1 Updated legal and regulatory framework (PUCA/other related legislation) is fully enacted with operating regulations, where necessary, implemented for at least six consecutive months.</p> <p>1.2 PUC capacity enhanced in accordance with annual plans approved in Tranche 2, as such plans are in effect through the date of the disbursement request.</p>

Objectives	1st tranche US\$2 MILLION	2nd tranche US\$ 5 MILLION	3rd tranche US\$ 5 MILLION
	<ul style="list-style-type: none"> ▪ Develop Public Consultation Guidelines ▪ Improve Complaint Handling Process ▪ Publish Expanded Annual Report ▪ Develop Policy and Procedures for Confidentiality of Information ▪ Procedures for Hearings, Open Meetings, and Issuing Decisions ▪ Development and implementation of the website ▪ Maintain a database of individual customer consumption information without identity disclosure. ▪ Develop and maintain a registry of consumer groups, government contacts, media representatives and organizations, business groups such as chambers of commerce, and any other interested party, as technically available. ▪ Establish regular and reasonable frequency meetings with the responsible Minister and GEA. ▪ Establish Learning / Exchange activities ▪ Utilize a core set of networking resources for PUC professional staff to keep abreast of the latest developments in the regulation of public utilities. ▪ Develop an Annual Communication Plan <p>1.3 Fundamental issues agreed upon, which are to be analyzed in a study to update the legislation of the electric sector and GP&L Licence and any other appropriate implementing instrument. These issues include, among others:</p> <ul style="list-style-type: none"> ▪ Reporting – Specific periodic reporting requirements and mechanisms from GP&L to PUC, OPM and the public that are transparent, functional, and applicable ▪ Tariff and rate of return - examination of current tariff structure to reflect stakeholders interest and - review the mandate related to the guaranteed rate of return. ▪ Accounting methodology – consistent with best international practices, accounting by lines of business in financial reporting and D&E plans ▪ D&E plans - comprehensive listing of requirement of D&E plans in legislation, inclusion of expansion plan, inclusion of planned acquisition of new capacity, loss reduction strategies, plans to regain industrial customers, and grid expansion or infill plans, inclusion of contingency plans, role of PUC in plans, with such plan developed within a context of a 15 year planning horizon. ▪ Governance - appropriateness of governance structure required for utility and governance administrative tools required for utility ▪ Categorization of GP&L – Harmonization of legislation to ratify GP&L categorization as a public company limited by shares and the associated accounting implications for the category. ▪ IPP review - stage and level in which the PUC is to become involved in IPP review/approval ▪ Loss reduction - PUC involvement in reviewing and enforcing electricity losses measures. 	<p>1.3.1 National Assembly approves updated electric sector legislation (ESRA) which is consistent with recommendations accepted by borrower and Bank of study resulting from outputs of Tranche 1;</p> <p>1.3.2 An updated power utility's Licence is consistent with recommendations accepted by borrower and Bank of study resulting from outputs in Tranche 1 and with updated legislation.</p>	<p>1.3.1 Updated electric sector legislation (ESRA) is fully enacted with operating regulations, where necessary, implemented for at least six consecutive months;</p> <p>1.3.2 An updated power utility's Licence is implemented for at least six consecutive months.</p>

Objectives	1st tranche US\$2 MILLION	2nd tranche US\$ 5 MILLION	3rd tranche US\$ 5 MILLION
	<p>1.5 Fundamental principles agreed upon, and to be evaluated in a study to revise the utility's tariff structure with such principles to include, among others:</p> <ul style="list-style-type: none"> ▪ Consistency with adequate revenue recovery ▪ Relationship of production and input costs to the setting of tariffs ▪ Equitable with customers needs and preservation of utility's financial sustainability ▪ Provision and guidelines for periodic review and update ▪ Rate of return <p>1.6 Fundamental issues agreed upon, with respect to inputs for the design of a data collection and reporting system for quality of service with such inputs to include, among others:</p> <ul style="list-style-type: none"> ▪ Quality of supply standards including: <ul style="list-style-type: none"> • Customers interruptions • Voltage regulation • Frequency regulation • Generation Availability • Losses ▪ Customer Supply standards including: <ul style="list-style-type: none"> • Customer Complaints • New Connections • Reconnections • Billing • Services ▪ Financial Standards ▪ Business Procedures ▪ The data collection and reporting system defines the methodology, responsibilities, actions and frequency of collecting and reporting on the quality of service. 	<p>1.4 PUC pending fine on utility resolved.</p> <p>1.5 Power utility's Board approves a tariff structure based on the recommendations accepted by borrower and Bank of a study completed following principles agreed in Tranche 1.</p> <p>1.6.1 Data collection and reporting system established and survey of utility's performance executed on a quarterly basis and results are published on its website.</p> <p>1.6.2 Utility establishes and commences execution of a plan to improve its performance and quality of service.</p>	<p>1.5 Approved tariff structure is implemented for at least six consecutive months</p> <p>1.6 Utility is compliant with the plan for quality of service established in Tranche 2, including implementation of data collection and reporting system, and executes quarterly surveys published on its website.</p>
Contribute to more efficient and effective development of the power sector with a long term strategy	<p>2.1 Fundamental issues agreed upon, which are to be evaluated in a study to prepare a power sector policy. Such issues include, among others:</p> <ul style="list-style-type: none"> ▪ Government's statement of its goals, priorities and implementation strategies for the sector as regards the following matters: ▪ energy balances and forecast- Current balance, Future projections, suppliers short and long term plans ▪ sector organization, management and regulation- Structure of sector, Role of PUC, Privatization options, ▪ primary energy sources- Oil, Renewables, ▪ energy efficiency. ▪ generation technology- Technological priorities ▪ network issues- National grid unification, Large self-generator connections, Large hydro connections, Cross border transmission ▪ commercial issues- Pricing options for electricity service, Long range program for maintaining good system management, ▪ financial issues- Financing of sector 	<p>2.1 Power sector policy approved by Cabinet and published in OPM website</p>	<p>2.1 Utility's Development and Expansion Plan (D&E Plan) consistent with relevant aspects of the power sector policy.</p>

Objectives	1st tranche US\$2 MILLION	2nd tranche US\$ 5 MILLION	3rd tranche US\$ 5 MILLION
Strengthen the power utility company capabilities			
Strengthen utility's capabilities to manage electricity loss reduction program by contributing to improvements in corporate governance, transparency and accountability	<p>3.1 Agreement on principles to be included in a study to prepare GP&L corporate bylaws and/or other corporate instruments to enhance its governance, transparency and accountability with such principles to include, among others:</p> <ul style="list-style-type: none"> ▪ Incorporation of internationally accepted corporate governance standards and procedures in the utility's corporate administrative tools to the extent suitable to Guyanese environment, including: <ul style="list-style-type: none"> • corporate bylaws • corporate governance standards and procedures • corporate governance code • operating procedures ▪ Board composition with technical director. 	3.1 The utility's new corporate bylaws and/or other corporate instruments consistent with outputs of Tranche 1, as appropriate and within the Guyana context, approved by utility's Board and/or shareholders, as appropriate.	3.1 The utility's new corporate bylaws and/or other corporate instruments have been implemented for at least six consecutive months.
Promote sustainable electricity loss reductions			
Improve utility's ability to bill, collect and monitor energy consumption	<p>4.1 Request for proposal to procure Customer Information System software CIS (including new billing module) called for and proposals submitted for consideration</p> <p>4.2 Consulting firm hired to monitor the electricity losses and to advise on the loss reduction plan implementation</p> <p>4.3 Utility's Board approves loss reduction plan and monitors its execution by the utility's management.</p>	<p>4.1 New CIS software (including new billing module) acquired and installation initiated</p> <p>4.2 Consulting firm monitors electricity losses</p> <p>4.3 Utility's Board continues to monitor execution of loss reduction plan by the utility's management.</p>	<p>4.1 New Customer Information System (including billing module) installed and operating.</p> <p>4.2 Utility monitors electricity losses in accordance with methodology applied by the consulting firm.</p> <p>4.3 Utility's Board continues to monitor execution of loss reduction plan by the utility's management.</p>
Coordination and consistency of efforts allow for effective overall electricity loss reduction	5.1 Electricity losses to be under 34% for a 12 month moving average	5.1 Electricity losses to be under 25.5% for a 12 month moving average	5.1 Electricity losses to be under 20.4% for a 12 month moving average
Building consensus on the benefits of a sustainable power service	<p>5.2 Fundamental issues agreed upon are included in an action plan for the preparation of an educational program to reduce non-technical losses and promote demand side management with such inputs to include:</p> <ul style="list-style-type: none"> ▪ -Promotion of reduction of non-technical losses and demand side management 	<p>5.2.1 Utility implements an educational campaign consistent with outputs of Tranche 1, to reduce non-technical losses and promote demand side management as part of the utility's loss reduction plan.</p> <p>5.2.2 Establish Children's Education Campaign/ School Presentations</p>	5.2 Utility continues to implement an educational campaign to reduce non-technical losses and promote demand side management as part of the utility's loss reduction plan.

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-___/07

Guyana. Loan ___/BL-GY to the Co-operative Republic of Guyana
Power Sector Support Program

The Board of Executive Directors

RESOLVES:

1. That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the Co-operative Republic of Guyana, as Borrower, for the purpose of granting it a financing to cooperate in the execution of a power sector support program.
2. Such financing will be for the amount of up to US\$12,000,000, as follows:
 - (i) up to the amount of US\$6,000,000 from the resources of the Single Currency Facility of the Bank's Ordinary Capital, and
 - (ii) up to the amount of US\$6,000,000 from the resources of the Bank's Fund for Special Operations.
3. Such financing will be subject to the Financial Terms and Conditions and the Special Contractual Conditions of the Executive Summary of the Loan Proposal.

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