PROJECT CONCEPT DOCUMENT

GUYANA

I. Basic Data

Country and date:	Guyana, June 13, 2007
Project title:	Power Sector Support Program
Project number:	GY-L1014
Date of entry in the operative program:	August 15, 2006 registered in the Pipeline
Project team:	Kurt Focke (RE3/FI3, Division Chief), Alejandro Melandri (RE3/FI3, Team leader), Manuel Pacheco, Christiaan Gischler (RE3/FI3), Christopher Persaud (COF/CGY), Susan Tamir (Consultant), Kevin McTigue (LEG), Maria Rosa Sosa (RE3/FI3)
Borrower:	Government of Guyana
Executing agency:	Office of the Prime Minister
Type of Operation:	Policy Based Loan
Financing plan:	FSO: US$6.0 million, OC: US$6.0 million. Total: US$12 million
PTI/SEQ:	The project does not qualify as poverty targeted investment according to Bank's Eight Replenishment Document (AB-1704)
Tentative calendar of activities	Loan Committee (PCD): June 2007 Loan Committee (Project Report): August 2007 Committee of the Whole: September 2007

II. Frame of Reference

2.1 The Policy Based Loan (PBL) has the overall objective of supporting the Government of Guyana to promote a more sustainable and efficient energy sector. In order to achieve this objective the Policy Based Loan will support three pillars: promote sustainable reduction of electricity losses; promote institutional, legal and regulatory measures to contribute to the sustainability of those reductions; and strengthen the power utility company capabilities.

A. Macroeconomic framework

2.2 **Economic Growth and Private Investment.** After a period of low economic growth (average 0.3% over 1998-2005), the economy recovered in 2006 and grew at approximately 5%, reflecting a recovery in private sector credit, preparations for the 2007 Cricket World Cup, higher FDI flows, high commodity prices and a surge in

remittances (over 20% of GDP). Economic recovery will likely be sustained in 2007 due to aggregate demand stimulus from Cricket World Cup-related activities. However, it is not clear to what extent economic growth is sustainable. The country is facing a key challenge in the sugar industry, as a gradual 36% reduction in preferential EU sugar prices is underway.[1] Although large investments are taking place to improve the competitiveness of the sugar industry, there is still uncertainty about the potential adverse impact on exports and GDP. In addition, private domestic investment declined substantially from 13.5% to 6% of GDP between 1998 and 2004. FDI flows slowed down during this period and averaged 6.2% of GDP. Nevertheless, private investment has revitalized in recent years (Annex 2).

2.3 **Fiscal Policy and Debt Sustainability.** The country's overall fiscal position has deteriorated gradually over the last years, from a deficit of 0.6% of GDP in 1999 to 8.7% of GDP in 2003 with an acute increase to 13.6% of GDP in 2005. Sugar sector restructuring has been a key factor contributing to the recent fiscal deficit.[2] Nevertheless, the overall fiscal deficit backed slightly in 2006 to 11.2% of GDP. Increases in both current and capital spending have contributed to increased deficits. Guyana benefited from the Heavily Indebted Poor Countries (HIPC) Initiative and the Multilateral Debt Relief Initiative (MDRI), which provided considerable debt relief to the country. Moreover, the IDB has recently granted additional debt relief to Guyana (IDB-07 Relief Initiative). The recent World Bank/IMF Debt Sustainability Analysis (2007) for Guyana shows improvements in external debt indicators, well below the debt burden thresholds over the entire horizon. After an increase in the external debt-to-revenue ratio in 2007,[3] the ratio is projected to decline gradually.[4] However, results of the sensitivity analysis show that Guyana still remains at a moderate risk of debt distress. Guyana could face adverse developments, such as lower non-debt creating flows, a steep devaluation, and significantly lower growth, creating debt unsustainability in the medium-term.

2.4 **The External Deficit.** Although the current account deficit (before grants) improved from 18.8% of GDP in 2001 to 9% of GDP in 2004, it jumped to 19% of GDP in 2005 as a result of high oil prices, flooding emergencies, and increases in capital imports. The current account deficit in 2006 further widened to 28% of GDP due to rapid growth in consumer and capital imports. This largely reflects preparation for the Cricket World Cup, sugar sector restructuring, and a recovery in foreign investment.

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[1] Sugar is Guyana´s largest export, accounting for around one-quarter of total exports and 14% of GDP in 2005.

[2] The fiscal deficit in 2005 was 9.3% of GDP excluding the sugar restructuring spending.

[3] The NPV of external debt-to-revenue at end-2006 is estimated at 174%, 16 percentage points lower than earlier anticipated.

[4] Assuming IDB debt relief the NPV of external debt-to-revenue ratio would drop from 184% in 2007 to 95%. However, the longer term benefits will be smaller given the decrease in the average concessionality of IDB resources. The NPV of external debt-to-revenue would roughly be the same by the end of the projection period (149%).

2.5 **The IMF engagement with Guyana**. The last PRGF arrangement was successfully completed in September 2006. The Article IV Consultation report, which highlights the need for moving forward with structural reforms, was approved in May 2007. The government has requested a new IMF-supported program and negotiations are underway in which an agreement is expected in September 2007. The IDB will undertake a macroeconomic analysis as part of the preparation of the Project Report, taking into account IMF input.

B. Socioeconomic framework

2.6 Guyana is a low-income, thinly populated country with a predominantly agricultural economy. It is the largest country of the CARICOM community but scarcely populated (215,000 km² and about 741,000 people according to the 2002 census). The vast majority of the population lives in the coastal strip while the rural interior is very sparsely populated. Region 4 includes Georgetown, the capital, and represents the largest concentration of population. Guyana remains among the least developed countries in the Americas: It was ranked 103rd in the United Nation Development Program (UNDP's) 2006 Human Development Index Report.

C. The power sector

2.7 Guyana has a relatively small physical power system. It 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. Guyana's total installed capacity is approximately 120 MW (exclusively thermal). The country is highly dependent on petroleum imports mostly in the form of fuel oil and diesel to meet the energy demand, with much lesser contribution of bagasse and fuel wood.

2.8 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 Power 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 utilities' compliance with their licenses and determining and approving tariffs. The Environmental Protection Agency is responsible for enforcing environmental regulations.

2.9 Guyana Power and Light Limited (GPL) is the power utility company. It is a vertically integrated utility and is the principal utility in Guyana. The utility's license covers the entire country with the exception of the city of Linden. GPL's

current total installed capacity is 113 MW (92.5 MW available) (exclusively thermal) and approximately 515 GWh is produced annually.

2.10 In 1999, the Government sold a 50 percent stake in the Guyana Electricity Company (now GPL) to a private consortium. 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 March 2003. Although the consortium was tasked with investing in equipment to reduce both technical and non-technical energy losses, in fact losses actually increased during the consortium's tenure, forcing the PUC to levy a fine on GPL, which remains technically outstanding. GPL returned to profitability in 2003 and was self-financed from its energy sales until 2006, where it has since experienced financial deficits in part due to GPL policy of internalizing the escalating fuel prices by foregoing revenues and maintaining a stable tariff. The non-audited 2006 financial statements present a negative EBITDA of US$1.5 million. GPL published its audited 2004-2005 financial statements in June 2007.

D. The country's sector policy

2.11 An Energy Policy for Guyana was prepared in 1994 and provided forecasts for energy supply and demand for 1998-2004. Some of the strategies for satisfying the energy demand, listed in the policy, include among other objectives to increase efficient use of bagasse, woodwaste and rice-husk for electricity generation; develop major hydropower facilities; increase efficient use of petroleum based products; and support alternative energy sources.

2.12 Progress toward the policy objectives are reflected in the following actions:

a. GPL made hydropower generation a priority in its Development and Expansion Plan 2007- 2011 with a 100MW hydroelectric plant expected by 2011;
b. A pre-feasibility study was completed in August 2001 for the Turturba Rapids 760MW hydropower project;
c. Power Purchase Agreements (PPA) negotiations of a 12MW wind farm in East Coast Demerara;
d. Solar electricity projects in progress at Orinduik, Kabakaburi, Paruima, and Kato;
e. Memo of Understanding between GPL and Guysuco where Guysuco will develop a 20MW bagasse power plant as an Independent Power Producer (IPP).

2.13 While GPL has managed to enunciate a development and expansion plan to improve its short term operations, the sector still lacks a comprehensive long term vision for its policy to guide its development strategies.

E. Guyana's country and sector strategy

2.14 The National Development Strategy (NDS) sets out priorities for Guyana's economic and social development policies. Guyana's broad national objectives include: a) Rapid growth of incomes of the population; b) Poverty alleviation/reduction; c) Satisfaction of basic social and economic needs; and d) Sustainment of a democratic and fully participatory society. In support of the national objectives, the principal policy objectives for the energy sector are: 1) adequate and dependable supply of electricity; 2) eliminate Government fiscal transfers; 3) reduce the dependency on imported petroleum products; 4) provide increased utilization of new and renewable energy resources; 5) sustainable use of energy; and 6) encourage energy conservation practices. A Poverty Reduction Strategy (PRS) with emphasis on policies and programs that would markedly reduce poverty was accepted by the Boards of the World Bank and the IMF in December 2000. The PRS recognizes that unreliable power supply and the high cost of energy contribute to lack of competitiveness. A new PRS is currently being planned.

2.15 A National Competitiveness Strategy (NCS) was prepared by the Ministry of Tourism, Industry and Commerce in 2005 focusing on the NDS's , on the principle of economic diversification toward building international competitiveness. In the report, the NCS recognizes that an efficient infrastructure is necessary for improved national competitiveness. The report's action plan recommends assessing weaknesses in infrastructure and identifying policies to overcome these weaknesses. The Competitiveness Program is currently being developed.

2.16 The Government of Guyana (GOG) identifies the high cost of energy as an impediment to development and competitiveness. Energy losses are a key factor leading to this cost structure. The GOG has demonstrated its commitment to pursue loss reduction through several initiatives as well as in the discussions with the project team. Among its initiatives, GOG has implemented house to house inspections to remove illegal connections, prosecution of cases in the commercial court, negotiations with a consulting firm to monitor losses, and proposing changes to legislation to assist in combating theft. Furthermore, it was on the initiative of the OPM to begin discussions on loss reductions and to pursue a program which has received consensus from GPL and the Ministry of Finance.

F. Current challenges in the power sector

2.17 Guyana's power sector faces a difficult operational, institutional, regulatory and business environment. Technical limitations in the sector, in terms of inefficient equipment, variety of standards, small size of the market, sites with hydro potential are far away from the load centers, and a persistent high level of energy losses have been barriers for development of the sector, private sector involvement and development of hydro power projects. Overall high losses impose higher tariffs, introduce forced outages due to unavailability or undue

pressure on the generation and distribution systems, lower the quality of service and restrict the expansion of the system to unserved areas. As a result of these factors, larger customers requiring uniform and reliable power are compelled to leave the grid and self generate to the further detriment of GPL's sustainability. The current high level of oil prices appears to have catalyzed the sector into urgent action to address the electric losses. A sector development and expansion plan with a focus on the long term would be a valuable tool in communicating the utility's intentions in addressing the challenges:

2.18 **Operational challenges:** Among all the threats to the sector's sustainability, electricity losses deserve the most urgent consideration and are the focus of this operation. Losses, defined as the difference between energy generated and energy effectively billed to customers, averaged between 39.6% and 42.7% in the period 2001-2005. An Evaluation and Prioritization of Loss Reduction Investments study was conducted in June 2006 by an independent consulting firm, which calculated each category of losses and identified investments and actions to address them. The study concluded that in 2005, 28% of a total of 40% losses were non-technical and could be estimated as 11% from illegal connections, 7% from billing problems and 11% from metering issues. The inadequacy of the meters, lack of meter certification, shortage in training of meter readers, and inherent social tolerance of theft and fraud, make illegal abstraction an easy option for customers; The billing system cannot perform to the standards expected and relies on poor data and weak controls. Technical losses in the order of 11% are partially due to the network configuration, inefficient and antiquated infrastructure, and other technical weaknesses, which may be addressed with investments in capital works outside of this operation. Currently every 1% of losses represent US$1.2 million in lost revenue.

2.19 **Institutional challenges:** The country does not have a long term planning horizon nor a policy initiative for the power sector. A short-term focus, while understandable within the context of current challenges, cannot provide for the establishment of a strategic direction and plan that can be implemented with available resources. The absence of an updated power sector policy that sets the environment for sector development and addresses the apparent social tolerance of theft and fraud has hindered the PUC and GPL from establishing long-term priorities, and impeded other private sector participation. Although relatively recent legislation governs the sector, that legislation was created in the context of private sector management of GPL and today requires updated concepts on tariffs, development of the sector, competitiveness, and losses, as well as in governance, transparency and reporting.

2.20 **Regulatory challenges:** The PUC has experienced technical, financial and other weaknesses affecting its operational capacity and effectiveness to regulate the sector. Currently the PUC regulates the sector using only a single chairman and four members appointed by the OPM. PUC resources and technical capabilities have been further stretched as it also regulates the growing telecommunication sector.

2.21 **Business challenges:** Due to limited access to external financing GPL has to finance its investment needs by internally generated funds. As long as GPL must be financially self-supporting, its high level of electricity losses must be compensated with higher tariffs. Attempts to negotiate PPAs have resulted in mixed results. The initiatives to engage large industrial loads like alumina processing have failed. Persistent high level of losses provides a negative environment where corrupt practices may be established hindering the company's ability to manage itself adequately. When combined with the already high production cost due to fuel prices and inefficient generation technology, excessive electricity losses result in extremely high prices for power. While Guyana's electricity use is relatively low on both absolute and per capita bases, GPL's high tariff level (24 US¢/kwh) is a major constraint for the development of energy demand. The tariff structure is distorted and does not reflect supply costs, with average industrial rates higher than residential rates. The pending US$35 million fine PUC levied upon GPL in July 2002 when the private investor did not address the excessive losses is a concern to potential investors. Unresolved, this situation may threaten GPL's financial health and increase its credit risk.

G. Bank experience in the sector

2.22 In 1996, the Bank funded the $45 million PBL Electricity Sector Program (986/SF-GY) to improve the efficiency of the power sector and to provide more reliable and affordable service, by means of financial and institutional reforms of the Guyana Electricity Corporation (GEC) and a legal, regulatory, and environmental framework to support public-private partnership.

2.23 The Program supported by the Loan was successful as it provided for the entry of private investors. The following results were achieved: privatization of the GEC, new legislation (ESRA, PUCA), and environmental regulations for the power sector. Several lessons learned from the Electricity Sector Program are relevant for this Program:

a. The PUC as an effective autonomous agency should have been supported with more concrete measures to strengthen its autonomy.
b. Due diligence and communication on the macroeconomic and political background with any potential private investor is important in providing a candid picture so that the selected partner is well prepared for business environment difficulties.
c. Appropriate legal, regulatory and institutional framework is needed to ensure that government policies are carried out and should be accompanied by practical measures to implement an institution-building program; Strong and sustained commitment by government to policy and institutional reform is key.

2.24 As continuation of the reforms initiated by the Electricity Sector Program, in 2002 the Bank sought to support power sector development through the $34.4 million Unserved Areas Electrification Program (UAEP) (1103/SF-GY, 34.5% disbursed as of May 2007). The loan was conceived to extend service to 40,000 new users

within areas currently served by GPL along the coastal strip and to develop electrification schemes within un-serviced areas in the hinterland.

2.25 Progress in the execution of the UAEP follows its 2004 reformation, which added to the grid connections three components- Investment, Hinterland preparation, and Institutional strengthening. The first phase added loss reduction, technical support, and publication of a Development and Expansion Plan while the second phase included a hinterland electrification strategy and demonstration project, tariff rebalancing plan, a reprivatisation policy, and a monitoring system. Currently progress on these fronts can be summarized as follows: (a) 12,200 new connections made; (b) a hinterland electrification study completed in October 2005, and (c) a loss reduction prioritization study was completed and a proposal for loss reduction management services is being submitted. GOG has also submitted a GPL Re-privatization Policy & Strategy which reaffirms GOG's decision not to privatize GPL in the medium term due to the current sector challenges. Currently, compliance with Phase I is being reviewed by the Bank.

2.26 In 2003 the MIF's Strengthening Electricity Sector Regulation in Support of Private Investment (TC0011035 disbursed 70.9% as of May 2007) was approved to enhance private investor participation and establish competition in the 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 to pursue operations in the power sector.

H. The Bank's country strategy

2.27 The Bank's strategy (GN-2228-1 and its update GN-2257-9) is to promote growth oriented programs and policies, which if reinforced by the strengthening of governance, security and justice, public sector systems and social programs, will contribute to poverty reduction in Guyana. To implement the strategy, the Bank seeks to help Guyana by focusing resources on three pillars: achieving sustainable economic growth; improving governance and public sector efficiency; and strengthening social programs.

I. The Bank's sector strategy

2.28 It is within the Bank's Electric Energy Sector Policy (OP-733-1) to contribute to economic and social development through loans and technical cooperation for financing projects that will increase the availability and reliability of electricity. To accelerate growth within the energy sector, the Bank's Energy Policy (OP-733) and 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 concerned with the development, production, supply, utilization and control of energy.

2.29 The proposed Program will address the areas identified by the Bank's country and sector strategies. Improvements in the sector should contribute to an enabling environment for the private sector and contribute to the country's competitiveness. The Program also supports improvements in the power utility company in addressing operational and strategic weaknesses to contribute to expansion of access to productive infrastructure.

J. Coordination with other donors

2.30 IDB is Guyana's most important source of development finance. In 2006, the Bank's share of total external finance was 60% and 8% of the current portfolio has been allocated for the development of the power sector. To date no other donor has placed any power program in their pipeline.

2.31 The IMF has also identified energy cost and 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 thoroughly analyzing the problem and identifying solutions and priorities.

2.32 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. Relevant inputs from the process will be considered in this operation.

K. The program strategy

2.33 Following the sector's current challenges (¶2.17 to ¶2.21), the Program's strategy is to support activities in the power sector that will help promote the sustainable development of the power sector and institutionalize policies and practices to (i) improve the enabling environment to encourage sustainable energy loss reduction and efficiency; (ii) address loss reduction on a sustainable basis by: establishing planning and priority setting in the sector; strengthening regulatory capacity, governance and transparency; corporate strengthening of the power utility provider (GPL); and (iii) promote social awareness to consolidate loss reduction efforts.

2.34 This Program will allow GOG to support policy formulation which will assist GPL and other stakeholders to achieve basic efficiencies in the sector. Key steps are already outlined within the UAEP program and the GPL's development and expansion plans to progress in the medium term reform process. The UAEP will also finance key investments that will provide technical tools to loss reduction

efforts. To keep the implementation of the reform process on track, a multi-tranche PBL is considered the suitable instrument to achieve the Program's objectives.

III. The Program

A. Objectives and description

3.1 The overall objective of the Program is to support the Government of Guyana to promote a more sustainable and efficient energy sector. In order to achieve this objective the Policy Based Loan will support three pillars: promote sustainable reduction of electricity losses; promote institutional, legal, and regulatory measures to contribute to the sustainability of those reductions; and strengthen the power utility company capabilities.

B. Program structure

3.2 The Program is envisioned as a three tranche PBL, within a medium-term framework of institutional reform according to the New Lending Framework Assessment Report (GN-2200-13) and Guidelines for preparation and implementation of PBLs (CS-3633). The disbursement of the tranches will be conditional on adherence to a sound macroeconomic framework as set in the objectives of the program and guidelines set forth in the sector policy letter which will be presented by the GOG, and compliance with the loan conditions.

3.3 In line with the identified challenges and program strategy (¶2.17-2.21 and ¶2.33-2.34), the Program is focused on three components: A) Promote regulatory and legal reforms; B) Strengthen the power utility company capabilities; and C) Promote sustainable electric loss reductions. The first component aims to support the GOG in modernizing the regulatory and institutional frameworks to implement an enabling environment for loss reduction. The second component aims to support the GOG, namely through GPL, in establishing mechanisms to improve corporate governance, transparency and accountability. The third component aims to support GOG and GPL in the promotion of sustainable electric loss reductions. The conditions for the tranches are shown in detail in the draft Program Matrix and summarized below (Annex 1).

3.4 **<u>A. Promote regulatory and legal reforms</u>**: the objectives of this component are: 1) Strengthen the regulatory and legal framework to contribute to a more effective power sector with increased efficiency, transparency and accountability; and 2) Contribute to more efficient and effective development of the power sector with a long term strategy. This component will build upon the established 1994 energy policy to include a new power sector policy, will update legislation and improve capacity related to the management of the electric sector in the PUC, will update legislation and license related to the management of GPL, clarify GPL financial obligations, establish a new tariff structure, and establish quality of service reporting obligations.

3.5 **As a first tranche condition,** the GOG and the Bank would reach agreement on issues and the measures to address them in the regulatory framework legislation from which a specific study will draft the required updates to the legislation. In addition, the GOG and the Bank would reach agreement on issues and the measures to address them, including a strategic plan, to improve PUC regulatory capacity. In addition, the GOG and the Bank would reach agreement on issues and the measures to address them in the electric sector legislation and GPL license from which a specific study will draft the required updates to the legislation. In addition, PUC pending fine on GPL representing a contingent liability is resolved. In addition, the GOG and the Bank would reach agreement on issues and the measures to address them in implementing an economically efficient tariff structure from which a specific study will draft the required updates to the tariffs. In addition, the GOG and the Bank would reach agreement on issues and the measures to address them in designing a data collection and reporting system for quality of service from which a specific study will draft the required updates to the quality monitoring system. **As a second tranche condition**, the GOG will have caused the said amendments to PUCA considering revisions or inclusions of: funding, reporting and analysis, strategic plans, needs assessments, power of regulator, enforcement mechanisms, IPP review, as required, to be approved by National Assembly. In addition, the GOG will have caused the PUC strategic plan to be prepared and capacity enhanced. In addition, the GOG will have caused the said amendments to ESRA including revisions or inclusion of: enforcement mechanisms, reporting and disclosure, tariff, rate of return, accounting methodology, subjects/timeline in D&E plans, and GPL governance, as required, to be approved by National Assembly. Also, GOG will have caused the said amendments to GPL License on similar issues to be approved by Minister or incumbent authority. In addition, the GOG will have caused the GPL Board to approve tariff structure based on issues identified in the first Tranche and submit to PUC. In addition, the GOG will have caused the Consultancy to establish data collection and reporting system and execute survey of GPL's performance, after which GPL to execute quarterly survey and publish results on its website. Also, GOG will have caused GPL to establish and execute a plan to improve its performance and quality of service (performance targets to be determined). **As a third tranche condition**, the GOG will have caused the updated PUCA Legislation to be fully enacted and operative. In addition, the GOG will have caused the full implementation of PUC strategic plan including changes in organization and human resources. In addition, the GOG will have caused the updated ESRA Legislation to be fully enacted and operative. Also, the GOG will have caused the updated GPL License to be implemented for at least six months. In addition, the GOG will have caused implementation of approved tariff structure. In addition, the GOG will have caused GPL to be compliant with the improvements in the plan for quality of service targets established in the second Tranche and executes quarterly surveys to measure public perception of quality of service and published on its website (performance targets to be determined).

3.6 **As a first tranche condition,** the GOG and the Bank would reach agreement on issues and the measures to address them for a power sector policy from which a

specific study will draft the new policy. **As a second tranche condition**, the GOG will have caused to prepare a power sector policy approved by Cabinet and published in the OPM website. **As a third tranche condition,** the GOG will have caused GPL's Development and Expansion Plan to incorporate the proposals in the power sector policy.

3.7 **B. Strengthen the power utility company capabilities:** the objective of this component is to strengthen GPL capabilities to manage a loss reduction program by contributing to improvements in corporate governance, transparency and accountability. This component will promote the amendments in the License and ESRA legislation to promote an improved management environment by enhancing governance, corporate codes, and other corporate administrative tools.

3.8 **As a first tranche condition,** the GOG and the Bank would reach agreement on principles to be contained in GPL corporate administration to enhance its governance, transparency and accountability. **As a second tranche condition**, the GOG will have caused that following a study to improve GPL corporate administration, the GPL's new corporate bylaws, Board composition with independent director, corporate governance standards and procedures, corporate codes, and operating procedures, as appropriate, are approved by GPL Board. **As a third tranche condition,** the GOG would have caused the GPL's new corporate bylaws, Board composition with independent director, corporate governance standards and procedures, corporate codes, and operating procedures to be implemented for at least six months.

3.9 **C. Promote sustainable electric loss reductions:** the objective of this component is to promote sustainable electric loss reductions. This component will promote attaining this operation's expected results after actions are taken to control electricity losses, some of which are required activities under the UAEP such as the acquisition and implementation of a new billing system and replacement of defective meters. Replacement of the meters and implementation of a new billing system is considered to be the most impactful for GPL's operations. It is envisioned that a new billing system and meters will improve GPL's accounting operations, perception of its quality of service, and ability to provide commercial and operational information. To reinforce the promotion of loss reductions, this component will raise awareness of the characterization of energy losses and inefficiencies and resulting increased cost to consumers through a public awareness campaign.

3.10 **As a first tranche condition,** the GOG will have caused the Request for Proposal to procure new billing software to be called. In addition, the GOG will have caused the Consulting firm to monitor the electrical losses and to advise on the loss reduction plan implementation to be hired (by Q4 2007 1st report on loss status). Also, the GOG will have caused the GPL Board to establish a loss reduction priorities plan and assign board member to monitor its execution (Electrical losses to be under XX%). In addition, the GOG will have prepared a list of issues for a study of an educational program/campaign to reduce non-

technical losses. **As a second tranche condition,** the GOG will have caused the new billing system to be acquired and for installation to be initiated. In addition, the GOG will have caused the Consulting firm to monitor electrical losses (by Q3 2008 final report on loss status). Also, the GOG will have caused GPL Board to implement a loss reduction priorities plan (Electrical losses to be under XX%). In addition, the GOG will implement an Educational campaign to reduce non-technical losses as part of GPL's loss reduction action plan. **As a third tranche condition,** the GOG will have caused the new billing system to be installed and operating. In addition, the GOG will have caused the financial surplus after implementation of loss reduction to be applied to GPL development and customers' benefit (Electrical losses to be under XX%). In addition, the GOG will implement an Educational campaign to reduce non-technical losses as part of GPL's loss reduction action plan.

C. Cost and financing

3.11 The overall 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$2 million, and the last tranche of US$8 million.

IV. Program execution

A. The borrower, guarantor and executing agency

4.1 The borrower will be the Co-operative Republic of Guyana. The Office of the Prime Minister (OPM) will be the executing agency. A Principal Project Coordinator within the OPM will coordinate execution. The same Project Unit responsible for the execution of the UAEP will be responsible for this Program. An institutional analysis during project preparation will provide an assessment of OPM execution capacity and recommendations for institutional strengthening.

B. Program execution and management

4.2 The Principal Project Coordinator main responsibility will be to monitor compliance with Program conditions and performance benchmarks, to coordinate the program with the public utility commission and power utility company, and to serve as the single point of contact with the Bank on all 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.

C. Period of execution and estimated disbursement schedule

4.3 Due to the nature of the Program, it is expected that the conditions for the first disbursement will be fulfilled shortly after the submission for approval of the Program to the Board of Executive Directors in August 2007. It is expected that the second tranche will be fulfilled in the 18 months following the disbursement of the first tranche. It is also expected that the third tranche will be fulfilled in the

24 months following the disbursement of the second tranche. The progress of the tranches will be functions of the compliance with the loan conditions.

V. Impact on development

A. Expected benefits and outcomes

5.1 Following completion of the Program, it is expected that electricity losses experienced by GPL will be reduced significantly on a sustainable basis. This should allow a suitable environment to rebalance tariffs as well as strengthening governance and transparency within the sector. In addition, improvements of the regulatory and institutional structure will allow Guyana to have an enabling environment to promote continuous development of the power sector and participation of independent private providers of electricity. The long term effect of the programs on governance and oversight within the sector, and electricity loss reductions, will also be an enhanced environment for investment to contribute to Guyana's competitiveness.

B. PTI and SEQ analysis

5.2 The Project does not qualify as Poverty Targeted Investment according to Bank's Eight Replenishment Document (AB-1704) or as Social Equity Enhancing.

C. Environmental and social impact

5.3 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), par. B13, this operation does not require to be classified. During the preparation of the operation, the Project Team will evaluate the feasibility and relevance of conducting an analysis of the enforcement capacity on environmental and social issues as they relate to the energy sector, considering the type and scope of the operation and the sector.

VI. Special aspects

A. Exceptions to Bank policy

6.1 No exceptions to Bank's policies are expected.

B. Risks

6.2 In order to continue with the project preparation process, it will be necessary to complete the analyses of ample and consolidated information from the sector and the power company. The timely and adequate availability of this information could be hindered by technical and institutional weaknesses. This risk is expected to be mitigated by GOG hiring a consultancy firm that will audit losses and loss reduction efforts. Recent delays in the procurement process of this consultancy services keep this risk outstanding in completing preparation of the project.

6.3 One of the main challenges for the execution of this Program is the potential inability to implement the recommendations for loss reduction mechanisms identified under the UAEP-supported Loss Reduction Prioritization study. To address this risk, the Program will develop loss reduction targets that are consistent with the findings of the study and have also been recognized by GPL and GOG as being manageable, and that are in line with existing plans by GPL to combat electricity losses.

6.4 The project team will conduct a risk assessment exercise in order to identify additional risks. Results will be incorporated in the Project Report.

VII. Readiness

7.1 The Program is in an advanced state of preparation. The Bank has approved a parallel TC (GY-T1017) in support of sector policy preparation. In addition, the Bank and the GOG have had an intense dialogue on the Program's contents, and have agreed on the main aspects of the program. Furthermore, GPL has demonstrated initial commitment to the Program by way of addressing the electric losses by initiating actions in its Development & Expansion Plan, such as initiating the procurement of a new billing system and drafting amendments to the ESRA legislation. The Analysis Mission will take place during July 2007, and the loan proposal is scheduled to be presented in September 2007. Conditions for the first tranche are expected to be met shortly after the Board's approval of the program.

Annex 2

Table 1. Guyana: Selected Macroeconomic Indicators 1/

	2000	2001	2002	2003	2004	2005	2006[E]	2007[P]
Real GDP growth (%)	-1.3	2.3	1.1	-0.7	1.6	-1.9	4.8	5.2
GDP per capita (US$)	956.3	952.1	964.5	991.0	1,031	1,086	1,174	1,263
Gross domestic investment (%GDP)	23.8	21.6	20.9	21.0	22.1	31.3	35.5	34.3
Public Investment (% GDP)	13.8	13.7	12.6	14.5	16.3	23.4	25.4	22.8
Private Investment (% GDP)	10.0	7.9	8.3	6.5	5.8	8.0	10.1	11.5
FDI (%GDP)	9.4	7.9	6.1	3.5	3.8	9.3	11.9	11.6
Consumer Price Inflation (average annual, %)	6.1	2.7	5.4	6.0	4.7	6.9	6.6	4.5
Exchange rate (G$:US$, year-end)	184.8	189.5	191.8	194.3	199.8	200.3	201.0	201.0
Public sector balance (% GDP, after grants)	-4.6	-6.7	-5.9	-8.7	-4.5	-13.6	-11.2	-9.7
Public Revenue (% GDP)	33.7	33.2	32.5	35.0	37.5	36.9	38.7	37.5
Current Expenditure (% GDP)	33.9	34.6	33.7	33.8	32.2	34.3	34.5	32.1
Capital Expenditure (%GDP)	13.8	14.0	12.6	14.4	16.3	23.4	25.5	22.8
Current account deficit (% GDP, after grants)	-14.4	-13.9	-12.1	-7.2	-4.4	-13.8	-21.6	-18.2
Current account deficit (% GDP, before grants)	-16.2	-18.8	-15.2	-11.8	-8.9	-19.2	-28.0	-22.8
Exports (nominal annual growth rates)	-2.5	-2.3	0.5	3.4	14.8	-6.5	7.4	5.6
Imports (nominal annual growth rates)	6.4	-0.2	-3.6	1.6	13.1	21.6	18.9	4.2

Source: International Monetary Fund and own calculation.s

1/ E= Estimates, P= IMF Projections

GUYANA: POWER SECTOR SUPPORT PROGRAM GY-L1014 **Annex 1**

Program Matrix

Goal of the program: To contribute to a sustainable reduction of electricity losses by means of strengthening the regulatory and legal framework, strengthening and developing the power utility company, and promoting sustainable electric loss reductions.

Problem	Objectives	1st tranche US$2 MILLION	2nd tranche US$2 MILLION	3rd tranche US$8 Million	Assumptions	Outputs	Outcome	Means of Verifications
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								
Need to enhance regulatory oversight and institutionalize measures to promote increased efficiency in the sector	Strengthen the regulatory and legal framework to contribute to a more effective power sector with increased efficiency, transparency and accountability	1.1 Agreement on issues and measures to address them in the regulatory framework legislation from which a specific study will draft the required updates to the legislation. 1.2 Agreement on issues and measures to address them, including a strategic plan, to improve PUC regulatory capacity. 1.3 Agreement on issues and the measures to address them in the electric sector legislation and GPL License from which a specific study will draft the required updates to the legislation. 1.4 PUC pending fine on GPL representing a contingent liability resolved. 1.5 Agreement on issues and measures to address them in implementing an	1.1 Amendments to PUCA considering revisions or inclusions of: funding, reporting and analysis, strategic plans, needs assessments, power of regulator, enforcement mechanisms, IPP review, as required, approved by National Assembly 1.2 PUC strategic plan prepared and capacity enhanced 1.3.1 Amendments to ESRA including revisions or inclusion of: enforcement mechanisms, reporting and disclosure, tariff, rate of return, accounting methodology, subjects/timeline in D&E plans, and GPL governance, as required, approved by National Assembly; 1.3.2 Amendments to GPL License on similar issues	1.1 Updated PUCA Legislation is fully enacted and operative 1.2 Full implementation of PUC strategic plan including changes in organization and human resources 1.3.1 Updated ESRA Legislation is fully enacted and operative 1.3.2 Updated GPL License is implemented for at least six months 1.5 Implementation of approved tariff structure 1.6 GPL is compliant with the improvements in the plan for quality of service targets established in the second Tranche and executes quarterly surveys to measure public perception of quality of service and publish on its website	1.1 National authorities continue to prioritize the role of the PUC in oversight and monitoring activities in sector 1.2.1 National assembly approves version of legislation consistent with amendments 1.2.2 Financial contributions to PUC sufficient to execute strategic plan 1.3.1 National authorities continue to support GPL in providing power services 1.3.2 GPL carries out its obligations under the updated ESRA and license 1.4 GPL/PUC able to reach agreement on PUC fine on GPL 1.5.1 GPL maintains appropriate tariff rates 1.5.2 Fuel rates remain stable	1.1 PUCA legislation updated Indicators: Updated legislation approved by Q4 2008 Baseline: Current PUCA legislation 1.2 Institutional strengthening executed Indicator: PUC strategic plan approved by Q2 2008, PUC hires financial analyst and institutionalizes financial reporting and analysis systems for regulatory decision support 1.3.1 ESRA legislation updated. 1.3.2 GPL license updated Indicators: Updated legislation and license approved by Q4 2008; New obligations by management (D&E Plan) submitted to PUC and Minister, as per legislation and license by Q4 2008 Baseline: Current	1.1 Power sector information management improved Indicators: As per legislation, all documents submitted to PUC 1.2 Regulatory Framework monitoring capabilities improved. Indicator: PUC participation in all PPAs 1.3 Improved operations and accountability at power utility company 1.4 GPL transparency for engaging in PPAs improves 1.5 Sustainable loss reduction allows the return of large consumers to the Grid 1.6.1 Sustainable loss reduction allows	1.1Official gazette 1.2 PUC strategic plan 1.3.1 Development & Expansion Plan 1.3.2 Official gazette 1.3.3 GPL License 1.4.1 GPL Financial Statements 1.4.2 PUC letter of confirmation 1.5.1 GPL list of accounts 1.5.2 Development & Expansion Plan 1.6

		economically efficient tariff structure from which a specific study will draft the required updates to the tariffs. 1.6 Agreement on issues and the measures to address them in designing a data collection and reporting system for quality of service from which a specific study will draft the required updates to the quality monitoring system.	approved by Minister or incumbent authority 1.5 GPL Board approves tariff structure based on issues identified in first Tranche and submits to PUC. 1.6.1 Consultancy established data collection and reporting system and executed survey of GPL's performance, after which GPL to execute quarterly survey and publish results on its website. 1.6.2 GPL established and executed a plan to improve its performance and quality of service (performance targets to be determined).	(performance targets to be determined).	1.5.3 Electric loss implementation plan enforced 1.6.1 Fuel rates remain stable 1.6.2 GPL continues to invest in maintenance and expansion of operating capacity	ESRA; Current License 1.4 GPL financial obligations clarified 1.5.1 Tariff structure reflects stakeholders' interests 1.5.2 GPL clients pay economically efficient and competitive tariffs 1.6 GPL performance improves Indicators: Reduction in frequency of outages, Improvement in voltage and frequency stability, Improved customer service Baseline: current schedule of license	the return of large consumers to the Grid 1.6.2 Improved quality of service on a sustainable basis Indicators: number of large consumers; quality of service.	Baseline and results of customer survey published in the OPM website.
Need for a power sector policy that establishes the vision and priorities of the electricity sector	Contribute to more efficient and effective development of the power sector with a long term strategy	2.1 Agreement on issues and the measures to address them for a power sector policy from which a specific study will draft the new policy	2.1 Power sector policy approved by Cabinet and published in OPM website	2.1 GPL's Development and Expansion Plan (D&E) incorporates proposals from the power sector policy.	2.1 National authorities and stakeholders follow recommendations of new power sector policy	2.1 Power policy establishes the priorities for the sector Indicators: 10 year-view power policy includes the development strategy of sector approved by Q4 2008 and published Baseline: Current Energy Policy	2.1 Transparency in guiding electric sector development improved Indicators: GPL's D&E Plan incorporates proposals from the power policy	2.1 Publication on OPM/Electricity website

GUYANA: POWER SECTOR SUPPORT PROGRAM GY-L1014 **Annex 1**

Program Matrix

Goal of the program: To contribute to a sustainable reduction of electricity losses by means of strengthening the regulatory and legal framework, strengthening and developing the power utility company, and promoting sustainable electric loss reductions.

Problem	Objectives	1st tranche US$2 MILLION	2nd tranche US$2 MILLION	3rd tranche US$8 Million	Assumptions	Outputs	Outcome	Means of Verifications
Strengthen the power utility company capabilities								
Structural enhancement required to strengthen capacity of GPL	Strengthen GPL capabilities to manage loss reduction program by contributing to improvements in corporate governance, transparency and accountability	3.1 Agreement on principles to be contained in GPL corporate administration to enhance its governance, transparency and accountability	3.1 Following a study to improve GPL corporate administration, the GPL's new corporate bylaws, Board composition with independent director, corporate governance standards and procedures, corporate codes, and operating procedures, as appropriate, approved by GPL Board.	3.1 GPL's new corporate bylaws, Board composition with independent director, corporate governance standards and procedures, corporate codes, and operating procedures implemented for at least six months.	3.1.1 National authorities continue to support GPL in providing power services 3.1.1GPL carries out its obligations under the new governance mechanisms	3.1 New Obligations by GPL Board (GPL new corporate bylaws, Board composition with independent director, corporate governance standards and procedures, corporate codes, and operating procedures, as appropriate) as per legislation and license, approved by GPL Board by Q2 2008.	3.1 Improved operations, governance, transparency and accountability at power utility company	3.1.1 Development & Expansion Plan 3.1.2 Board minutes 3.1.3 Bylaws 3.1.4 Procedures 3.1.5 Corporate Codes 3.1.6 GPL License

GUYANA: POWER SECTOR SUPPORT PROGRAM GY-L1014 **Annex 1**

Program Matrix

Goal of the program: To contribute to a sustainable reduction of electricity losses by means of strengthening the regulatory and legal framework, strengthening and developing the power utility company, and promoting sustainable electric loss reductions.

Problem	Objectives	1st tranche US$2 MILLION	2nd tranche US$2 MILLION	3rd tranche US$8 Million	Assumptions	Outputs	Outcome	Means of Verifications
Promote sustainable electric loss reductions								
Operational enhancement required to strengthen capacity of GPL	Promote sustainable electric loss reductions	4.1 Request for proposal to procure new billing software called for	4.1 New billing system acquired and installation initiated	4.1 New billing system installed and operating	4.1.1 No technical challenges in billing system 4.1.2 GPL staff and customers take favourably to new system	4.1 New billing system operating by Q2 2008	4.1.1 Improved perception of GPL 4.1.2 Improved efficiency in GPL accounting operations Indicators: non-technical losses due to billing at X% Baseline: as per PPA report and monitoring firm report	4.1 Baseline and results of customer survey published in the OPM website.
		5.1 Consulting firm to monitor the electrical losses and to advise on the loss reduction plan implementation hired 5.2 GPL Board establishes loss reduction priorities plan and assigns board member to monitor its execution Indicator: 1st report on loss status by Q4 2007; Electrical losses to be under XX%	5.1 Consulting firm monitors electrical losses 5.2 GPL Board implements loss reduction priorities plan Indicator: final report on loss status by Q3 2008; Electrical losses to be under XX%	5.1 Financial surplus after implementation of loss reduction is applied to GPL development and customers' benefit. Indicator: Electrical losses to be under XX%, tariff structure plan	5.1 GPL continues to support loss reduction 5.2 Fuel rates remain stable	5.1 Electrical loss reduction improves Indicators: losses under XX%	5.1 Sustainable loss reduction allows the return of large consumers to the grid	5.1 Report by monitoring firm 5.2 Loss monitoring figures supplied by GPL and based on consulting firm methodology

Program Matrix

Goal of the program: To contribute to a sustainable reduction of electricity losses by means of strengthening the regulatory and legal framework, strengthening and developing the power utility company, and promoting sustainable electric loss reductions.

		5.3 Prepare list of issues for a study of an educational program/campaign to reduce non-technical losses	5.3 Implement Educational campaign to reduce non-technical losses as part of GPL's loss reduction action plan	5.3 Implement Educational campaign to reduce non-technical losses as part of GPL's loss reduction action plan	5.3.1 Consumers take favourably to campaign and initiate a change in behaviour 5.3.2 GPL Board implements loss reduction action plan	5.3.1 Consumers' behavior contributes to lower levels of non technical losses. 5.3.2 Increased social identification of energy issues and the benefits of a sustainable commercial operation of the power utility Indicators: non technical losses classified under theft at XXX%	5.3 Sustainable loss reduction allows the return of large consumers to the grid	5.3 Baseline and results of customer survey published in the OPM website.

Annex 1

GUYANA: POWER SECTOR SUPPORT PROGRAM GY-L1014

Program Matrix

Goal of the program: To contribute to a sustainable reduction of electricity losses by means of strengthening the regulatory and legal framework, strengthening and developing the power utility company, and promoting sustainable electric loss reductions.