I. Introduction and Context

Country Context

Following four years of rapid growth starting from 2003, backed by wide range of reforms and largely driven by strong foreign direct investment inflows, Georgia experienced a sharp economic downturn resulting from the twin shocks of the August 2008 conflict and the global financial crisis. To address the shocks, the Government launched a fiscal stimulus program and realigned public expenditures to social and infrastructure investments. This program led to an economic recovery and resulted in about 6.8 percent growth rate in 2011. To sustain growth the Government maintained their economic reform program throughout 2012, centered around a strong public investment program combined with the approximation to the EU.

However, in late-2012 parliamentary elections created a sense of perceived policy uncertainty which led to a slow-down of the growth. The attempts by the new Government to trim public investment spending coupled with a weakening of consumer and investor confidence since November 2012 slowed down growth. The World Bank and IMF project growth of 2.3 percent for the year of 2013.
However, largely viewed as temporary, the slow-down is expected to last until the October 2013 Presidential elections with the upside 6 percent growth forecast for the 2014.

To address the economic slow-down the new Government took number of initiatives; it intensified work on the formulation of new economic policy which will set the overall directions of the Georgian economic growth, it passed new labor legislation to attract private investment in strategic areas, such as the energy sector.

**Sectoral and Institutional Context**

Georgia’s energy sector has recovered from near complete operational and financial collapse and import dependency to a sector that provides affordable, reliable energy services to Georgian customers. With an overall generation of about 9.7 TWh in 2012, Georgia has, in the past years of 2007-2011, exported power to the neighboring systems. However, as the economic growth picks up again, Georgia’s energy sector faces four key issues:

i) Attract investment into its large underdeveloped hydro potential;  
ii) Ensure secure supply at an affordable cost and reliable service, particularly during the winter, when water precipitation is low and power demand is high;  
iii) Develop hydropower potential in a strategic way, to maximizing value to the country and optimizing the use of its hydro resources with a least cost approach in an environmentally sustainable way; and  
iv) Ensure a reliable operation and expansion of the power grid to meet new hydropower development needs and at the same time to enable regional power trade, thus taking advantage of Georgia’s geographic position.

Attract investment to its large underdeveloped hydro potential.

Georgia is endowed with hydropower resources; there are few potential hydropower sites which, if developed, could double country’s hydropower generation capacity. However the Government’s efforts to attract private financing for large hydropower stations has produced mixed results. There are total 13 large HPP with the total installed capacity of 2546 MW, with Enguri, the largest 1300 MW hydropower power station, among them. The two prospective hydropower sites upstream of Enguri have a potential capacity of 1150 MW. The other large river Rioni could also provide additional 450 MW hydrogenation capacity. While number of medium size, up to 150 MW, hydropower stations have been successfully developed by private financing, development of large hydropower stations have limited success. The Government undertook number of unsuccessful attempts to develop hydropower stations upstream of Enguri through private financing; the potential investors have been identified and Memorandums of Understandings for the development have been singed, though no closing of the agreements have been reached with the developers.

Ensure secure supply during the winter and addressing seasonal imbalances.

Hydro generation in Georgia is highly seasonal; most of generation takes place during summer months when power demand is low. There is a limited reservoir-hydropower capacity to store high summer run-off from rivers and provide generation during winter. Thermal generation partially compensates winter shortage; however power import during winter is essential for meeting winter demand. High demand during winter time exacerbates seasonal imbalances and drives up cost of power.

Develop hydropower potential in a strategic way.
While Georgia’s hydropower potential is substantial, realization of that potential in a strategic way that would maximize economic value to the country and optimize use of that potential with a least cost approach and in an environmentally sustainable way is a key challenge. Georgia has developed series of power sector strategic actions plans and sector strategies which were followed by current strategy Main Directions of State Sector Policy approved by the Parliament in June 2006. Number of additional documents has been developed since then which expanded the scope of the strategy however, none have been formally adopted by the Government. The work in underway to update strategy and develop a least cost sector expansion plan.

Ensure expansion of the power grid and enable regional power trade.

One of the factors which limit development of large hydropower stations is small size of the local power market compared with the size of prospective hydropower stations and the risk of evacuation of power from the hydropower station to the market in Turkey. The capacity of transmission line connection with Turkey increased by 700 MW after construction of the back-to-back station in Akhalsikhe. Government commits to ensure connection of a new hydropower stations with the transmission grid however, the source of financing for the cost of that connection is not defined. Financing of the connection of the new hydropower station with national grid varies from case to case and it is subject to negotiation between developer, Government and GSE.

At a strategic level, the transmission company faces a challenge of strategically planning, implementing, and financing transmission grid expansion in a way to ensure stable operation of the grid, evacuation and delivery of power from prospective hydropower stations to export market, and also enabling transit and regional power trade.

This proposed project will address this latter point, while at the same time providing a strategic framework for the development of its Power sector in a sustainable way and facilitating power trade.

Sector Structure and Responsibilities

Georgian power system is functionally unbundled into generation, transmission and dispatch, and distribution. The Market Operator, ESCO, provides for settlements between power generators and consumers, it also acts as a wholesale market by pooling power from generators outside of the direct contracts and sells it to the wholesale consumers. The oversight of electricity tariffs and licensing is performed by an independent energy and water regulator which approves electricity tariffs, issues licenses, and monitors compliance of the sector entities with sector codes and utility standards.

There is a strong private sector participation in the sector. There are two large distribution companies; TELASI and UEDC. TELASI is owned by RAO UES and UEDC by Energo Pro. These two companies also own bulk of the generation assets, in addition there are number of owners of the small hydropower power stations. The state retains ownership of the national grid, the largest power station Enguri, and two units of the thermal power station.

The transmission system is built around a 500 kV main loop. The system is connected with Armenia, Azerbaijan, Russia and Turkey through a KVA 700 back-to-back substation at the border. Distribution system consists of the 110 kV and below lines and substations delivering power to the consumers. Retail consumers are all metered, either via communal meters or via individual meter.

Electricity tariffs reflect cost of service. The price-setting methodology in the power sector is a standard cost plus methodology. The price of each individual generator is determined by an
independent regulator, however small power producers with the capacity below 10 MW are deregulated.

**Relationship to CAS**

The Project supports both areas of the Country Partnership Strategy (CPS) for Georgia for FY10-FY13 (Report Number: 48918-GE, dated August 11, 2009), presented to the Board in September 2009. It focuses on the CPS goals of economic and business growth, job creation and social services. The Project also contributes to the results as indicated in the CPS Progress Report, (Report Number: 58287-GE, dated March 9, 2011) presented to the Board in April 2011. It intends to help create permanent jobs, as well as temporary ones during transmission line construction.

The Project will finance infrastructure to support development of the significant generation capacity in the north-west of Georgia, Ajara region, as well as boost Georgian electricity export potential. It will also improve reliability and remove transmission system supply bottleneck to the rapidly developing city of Batumi. The Project activity to support the electricity market will prepare foundation to boost regional power trade and transit of electricity.

The project also supports the Government’s two priorities; each year, the Government prepares an annual strategy document titled Basic Data and Directions (BDD). Based on the BDD for 2010-2013 the project supports the following Government’s economic reform strategy include: resumption of economic growth and investments in critical infrastructure. Energy reliability will be enhanced, including by attracting donor and private investment to support a new power transmission line and increased hydropower generation.

**II. Proposed Development Objective(s)**

**Proposed Development Objective(s) (From PCN)**

The project development objective is to increase export of electricity from the newly constructed hydropower generation stations in the Ajara region and to improve electricity supply to the city of Batumi by strengthening the south-western transmission grid.

**Key Results (From PCN)**

The project will bring the following key results:

i) Export of electricity from the hydropower stations in the Ajara
   - The result will be measured by one indicator:
     i. Total electricity exported from hydropower stations in the Ajara region

ii) Enhanced transmission grid connection capacity of south-western part of the national grid,
   - The result will be measured by one monitoring indicator:
     i. Short circuit capacity of Batumi substation.

iii) Improved quality of supply of power to the city of Batumi,
   - The result will be measured by three monitoring indicators:
     i. Reduction of average duration of outages in Batumi substation
     ii. Frequency of outages in Batumi substation
     iii. Elimination of the voltage drop in Batumi substation

iv) Increased export/exchange of power with Turkey,
   - The result will be measured by one indicator:
     i. Total power exchange with Turkey

In a long run the project will bring new investment in hydropower development through:
v) Enhancing the electricity market by updating power metering
vi) Enabling hourly balancing and a day ahead planning by implementing balancing system
vii) Enabling electricity trading at a wholesale level by introducing trading systems
viii) Developing hydropower in an environmentally and socially sound manner by preparing and implementing SEIA and other sector studies

III. Preliminary Description

Concept Description

The project is aiming at three main areas; strengthening of the national transmission grid, enhancing electricity market, and assessing environmental impact of the sector strategy. The project consists of four components:

Component 1. Akhaltsikhe-Batumi High Voltage Transmission Line Construction (US $45 million). This component will finance supply and installation of a double circuit 220 kV transmission line from Akhaltsikhe back-to-back 500/400/220 kV back-to-back substation to Batumi 220 kV substation. It will connect the four HPPs: 175 MW Shuakhevi HPP to be commissioned in April 2016, 65 MW Khertvisi HPP, 150 MW Koromkheti HPP and 10 MW Skhalta HPP in Ajara region with the national grid. These four run-of-river HPPs, totaling 400 MW, are components of the Adjaritsqali cascade development project. The estimated length of the transmission line is 143 km, it is composed of two sections; section one a 43 km transmission line from Batumi substation to Suakhevi HPP power house, and section two from Suakhevi HPP power house to Akhaltsikhe substation.

Component 2. Wholesale Metering and Trading Systems (US $6 million). This component will finance supply and installation of the wholesale meters, balancing and trading software for metering and trading of active and reactive power by System Commercial Operator and Georgian State Electrosystem.

Component 3. Strategic Environmental Impact Assessment and Sector Studies (US $2 million). This component will finance consulting services of the consultants to the Ministry of Energy to prepare Electricity Sector Strategic Environmental Impact Assessment and other sector related studies such as power electricity sector expansion plan, analysis of the hydro power development financing forms, and other energy sector strategy related studies.

Component 4. Supervision Services and Project Implementation Support (US $7 million). This component will finance consulting services to supervise supply and installation contract for the Akhaltsikhe Batumi transmission line, preparation of new transmission system expansion plan, prospective transmission line feasibility studies, preparation of conceptual and detailed designs for the prospective transmission lines and substations, and services of consultants to support implementation of the project. About $2.5 million will be set aside for project implementation support and incremental operating costs.

IV. Safeguard Policies that might apply

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Pest Management OP 4.09    ×
Physical Cultural Resources OP/BP 4.11    ×
Indigenous Peoples OP/BP 4.10
Involuntary Resettlement OP/BP 4.12    ×
Safety of Dams OP/BP 4.37    ×
Projects on International Waterways OP/BP 7.50    ×
Projects in Disputed Areas OP/BP 7.60    ×

V. Financing (in USD Million)

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VI. Contact point

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Implementing Agencies
Name: Ministry of Energy
Contact: 
Title: 
Tel: 
Email: 
Name: Georgian State Electrosystem
Contact: 

Total Project Cost: 75.00
Total Bank Financing: 60.00
Financing Gap: 0.00

Projects on International Waterways OP/BP 7.50
Projects in Disputed Areas OP/BP 7.60

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VII. For more information contact:

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