

**PROJECT INFORMATION DOCUMENT (PID)
APPRAISAL STAGE**

Report No.: PIDA27610

Project Name	Gambia Electricity Sector Support Project (P152659)
Region	AFRICA
Country	Gambia, The
Sector(s)	General energy sector (34%), Thermal Power Generation (33%), Transmission and Distribution of Electricity (33%)
Theme(s)	City-wide Infrastructure and Service Delivery (100%)
Lending Instrument	Investment Project Financing
Project ID	P152659
Borrower(s)	Republic of The Gambia
Implementing Agency	National Water and Electric Company Ltd (NAWEC)
Environmental Category	B-Partial Assessment
Date PID Prepared/Updated	25-Aug-2015
Date PID Approved/Disclosed	25-Aug-2015
Estimated Date of Appraisal Completion	21-Aug-2015
Estimated Date of Board Approval	24-Feb-2016
Appraisal Review Decision (from Decision Note)	The chair authorized the team to upgrade the last mission to appraisal.

I. Project Context

Country Context

1. The Gambia is a small country whose economy relies essentially on tourism and agriculture. It is the smallest country on the African mainland, and stretches 450 kilometers (km) along the Gambia River. Its 11,285 km² area is surrounded by Senegal, except for a 60 km Atlantic Ocean front. Although small in size, The Gambia harbors a wealth of land, coastal, marine and wetland habitats and species of local, national, regional and global significance, making it an attractive tourist destination. The country has a population of 1.8 million. Most of the population (57 percent) is concentrated around urban and peri-urban centers. Progress toward poverty alleviation has stalled in recent years, following a marked decline in the poverty headcount rate from 58 percent to 48 percent between 2003 and 2010.

2. The Ebola crisis in neighboring countries and poor rainfall have significantly impacted tourism and agriculture, which along with shortcomings in fiscal policy, depressed real gross domestic product (GDP) in 2014. The Gambia has experienced a fairly high growth rate of 2.8 percent per year over the last decade. The economy is now facing a potential balance of payments crisis, primarily reflecting the sharp fall-off in tourism activity (due to the Ebola outbreak in neighboring

countries and tourists' aversion to travel to the region), and to a lesser extent the poor rains which have reduced groundnut exports and increased food imports, as well as disruption to transit trade (also tied to the Ebola outbreak in neighboring countries). The fiscal deficit expanded sharply while heavy reliance on increasingly costly domestic borrowing has added to The Gambia's debt burden. Fiscal policy over recent years has included pronounced fiscal slippage, ad hoc monetary policy shifts and significant central bank financing of the deficit. The Gambia is dependent on fuel imports, and has benefitted from the recent decline in international oil prices. However, this only partially offset the negative exogenous Ebola and agricultural shocks. Reflecting challenging conditions, the Gambian Dalasi (GMD) real effective exchange rate (REER) depreciated by an estimated 14.3 percent in 2014.

3. In 2014, the fiscal deficit expanded sharply to an estimated 13.3 percent as a share of GDP, up from 8.8 percent in 2013. The large fiscal deficit in part reflects the revenue loss and spending impacts tied to the Ebola shock on tourism, estimated at the equivalent of 0.7 percent of GDP in 2014. It also reflects other factors, including the emergence of large quasi-fiscal spending requirements (5 percent of GDP) on behalf of the National Water and Electricity Company (NAWEC), Gamcel/Gamtel and the Gambia Groundnut Corporation (GGC), unbudgeted spending (1.5 percent), unrealized privatization revenues (about 1 percent), and a shortfall in development partners' budget support (1 percent).

4. To redress imbalances that emerged over recent years, Gambian authorities have committed to substantial fiscal adjustment in 2015 and significant reforms in key sectors. The high degree of fiscal adjustment, with a programmed reduction in net domestic borrowing - from an estimated 12.2 percent of GDP in 2014 to 1.6 percent in 2015 - will help to stabilize the Government of The Gambia (GoTG) debt dynamics and to avert a possible balance of payments crisis. This, over time, will free up public resources to be redirected toward the development agenda, and avoid crowding out of private sector investment. Similarly, the reform efforts that the GoTG is undertaking in the areas of energy, agriculture, and governance, will reduce volatility and vulnerability for the economy and ease pressures on the GoTG's fiscal position.

Sectoral and institutional Context

5. Energy access in The Gambia is estimated at 35 percent, and installed generation capacity is 102 Mega Watt (MW), of which only 62 MW are currently available. While 60 percent of the population in the Greater Banjul Area (GBA) is served, only 6 percent of the population in the outlying provinces has access. Most of the generation capacity comes from two thermal heavy fuel oil (HFO) power plants: Kotu with 41 MW of installed capacity (of which 19 MW currently available), and Brikama with 47 MW of installed capacity (of which 36 MW currently available). Outside Banjul, NAWEC delivers electricity through six isolated mini-grids with 13 MW of installed capacity (of which 7 MW available) using high speed light fuel oil (LFO) plants as base load power stations with very high operational costs.

6. Approximately 66 percent of the Gambian electricity demand is estimated to be suppressed. The main constraints in improving access include lack of sufficient generation capacity – demand has grown at 5.5 per annum during the last decade - inadequacy of the transmission and distribution network, over dependency on expensive fuel generation, poor performance of the power utility, and difficulties in regulation of the sector. According to the latest Investment Climate Assessment from 2009, almost 80 percent of firms mention electricity as a major or very severe constraint to their

operation. Most of their complaints relate to cost and unreliability - electricity is available only 10 to 12 hours daily, and load shedding happens almost daily.

7. NAWEC has 151,500 electricity customers, 90 percent of which are in the GBA. More than 85 percent of customers are metered and billed with a prepayment system, while the remaining customers use a post-consumption invoice billing system. The pre-payment metering sales represent only 50 percent of the electricity sales, implying that some key high consumption customers are not on the pre-paid metering system. In addition, NAWEC serves 55,000 water customers.

8. The transmission and distribution (T&D) network is underperforming as shown by 23 percent of technical and non-technical losses. The T&D network consists of two 33 kilo volts (kV) transmission lines with a total length of 125 km conveying electricity from the Kotu and Brikama thermal power plants to 33/11 kV transmission substations and 33 kV/400 V (Volts) distribution substations. The 181 km of 11 kV lines carry electricity from these substations to various 11 kV / 400 V transformer stations at various locations in the GBA and Brikama. Low voltage lines then distribute electricity to three phase and single phase consumers at 400 V and 230 V respectively. The T&D network has a limited reach and inadequacies that reduce its effectiveness.

9. NAWEC has suffered financial distress in the past few years given its inefficient generation and T&D, high prices of imported fuel, and the sustained depreciation of the Gambian Dalasi. NAWEC has had three consecutive years of losses that eroded its capital and increased liabilities to about four times its annual revenue. Consequently, the GoTG provided a support of US\$22 million to NAWEC in 2014, and the Economic Community of West African States (ECOWAS) provided a grant of US\$30.1 million in 2013.

10. As a result, electricity supply cost recovery is estimated to be at 54 percent only. In 2013, while cost of electricity supply in The Gambia was estimated at US\$0.50 per kWh - one of the highest in sub-Saharan Africa - average tariffs were US\$0.35 per kWh and T&D losses 23%. While the cost recovery has recently benefited from the decreases in oil prices, this effect has been offset by a continuous depreciation of the Gambian Dalasi with respect to the US\$, which has reached cumulatively more than 50% since early 2012.

11. Aiming at improving NAWEC's financial situation, the following key policy reforms have been recently undertaken: a tariff increase, a revision of the frequency of tariff revisions, and liberalization of fuel imports. In order to improve the collection of revenues, an average tariff increase of 12 percent in electricity tariffs was made effective on February 1, 2015 reaching an average domestic tariff of US\$0.25 per kilo Watt hour (kWh). In addition, in January 2015 the MoFEA instructed PURA to increase the frequency of tariff review from annually to semi-annually in order to better improve the cost reflectiveness of tariffs. On the expenditures side, and considering that fuel costs represent up to 80 percent of power generation direct costs, the procurement of fuel has recently been opened up to competitive bidding processes.

12. NAWEC's finances are also expected to benefit from lower oil prices in the years to come. This did not happen in 2014 as fixed price contracts had already been signed before the significant decrease in oil prices. Indeed The Gambia is one of the few countries in sub-Saharan Africa relying almost exclusively on HFO an LFO for electricity generation. Assuming an oil price of US\$ 60 per barrel sustained through 2015, the savings in the cost of electricity generation could reach as much as 3.5% of GDP. This figure would decrease to 2.1% with a price of US\$ 80 per barrel, and

increase to 4.1% if the price was US\$ 50 per barrel.

13. The Energy Roadmap and Action Plan for The Gambia identifies basic, short-term, and medium-term investments needed to restore the sector's performance. The basic needs include the rehabilitation of existing HFO plants, targeted investments in T&D to reduce losses, and the installation of meters. The short term investment needs include new thermal power plants run on HFO and further T&D network improvement investments. Finally, the medium-term investments comprise the planned regional interconnections providing access to cheaper electricity imports for The Gambia.

14. Currently, multilateral donors are partnering with The Gambia to address the short term investment needs. An engine run with HFO with a capacity of 11.1 MW financed by the Arab Fund for Economic Development in Africa (BADEA) and the OPEC Fund for International Development (OFID) is scheduled to be commissioned at the end of 2017. Another two 10 MW HFO engines financed by the Islamic Development Bank (IsDB) are currently being procured and are expected to be commissioned in 2018. Furthermore, a US\$22.5 million T&D rehabilitation project financed by the Government of India is under preparation.

15. In the medium term, the interconnections with neighboring countries through the regional project supported by the World Bank and promoted by the Organisation pour la Mise en Valeur du fleuve Gambie (OMVG) offer an opportunity for The Gambia to access cheaper electricity supply. This includes importing hydropower through from the Kaleta (240 MW) hydropower plant in Guinea and the Sambangalou (128 MW) hydropower plant in Senegal under development. The OMVG project is currently under implementation and is expected to provide to The Gambia 17 MW by 2018 from Kaleta, another 25 MW from Sambangalou by 2020, and a total of 67 MW by 2030. This will eventually provide energy at a cost of US\$0.09 to US\$0.15 per kWh.

16. The proposed Gambia Electricity Support Project (GESP) is therefore designed to cover the basic investments needed in the electricity sector aiming to establish the grounds for restoring the sector, while the short and medium term investments that will come afterwards are being prepared.

II. Proposed Development Objectives

The Project Development Objective is to increase the availability and reliability of electricity supply.

III. Project Description

Component Name

Rehabilitation of Critical Generation in Kotu and Brikama

Comments (optional)

19. This component will finance improvements of NAWEC's generation capacity and efficiency in the existing Kotu and Brikama thermal power plants. This will be in the form of rehabilitation of required equipment, provision of critical spare parts, and financing urgent maintenance activities. This support is critical in view of the worsening generation scenario in The Gambia. The Project component will be divided in the following two subcomponents: Sub-Component 1(a): Rehabilitation of the Kotu thermal power plant (US\$5 million) and Sub-Component 1(b): Rehabilitation of the Brikama thermal power plant (US\$2 million).

Component Name

Reduction of technical and commercial losses in the GBA

Comments (optional)

This component will finance improvements in the transmission and distribution network in the GBA. The project will contribute to reduce forced outages as well as to diminish voltage drop, thus improving customer satisfaction. It will also generate higher supply continuity and quality, and increase prepayment metering, which will revert in higher returns. The improvements of the network will impact positively in the operations of NAWEC, reducing losses through the following two subcomponents: Sub-Component 2(a): Reduction of technical losses by upgrading and rehabilitating the existing T&D network (US\$3.3 million) and Sub-Component 2(b): Reduction of commercial losses by improving metering (US\$1.2 million).

Component Name

Institutional Strengthening and Project Implementation Support

Comments (optional)

This component is comprised of the following three sub components:

Sub-Component 3(a): Service contract for NAWEC management support (US\$5.5 million); Sub-Component 3(b): Owner's Engineer (US\$1.3 million); and Sub-Component 3 (c): Tariff model update for PURA (US\$0.2 million).

IV. Financing (in USD Million)

Total Project Cost:	18.50	Total Bank Financing:	18.50
Financing Gap:	0.00		
For Loans/Credits/Others			Amount
BORROWER/RECIPIENT			0.00
International Development Association (IDA)			18.50
Total			18.50

V. Implementation

17. NAWEC will be the implementing agency of the GESP. A new Project Management Team (PMT) will be created within NAWEC, who has had previous experiences in hosting project implementation units for implementation of projects financed by other donors. The PMT will include the following functions: project coordinator, procurement specialist, financial management officer, and project accountant. The PMT will receive specific training in Bank guidelines and procurement rules.

18. The service contractor financed under component 3(a) will provide assistance to NAWEC PMT for the implementation of GESP. In particular, the service contractor will provide support from expert staff to the PMT in procurement activities in order to meet World Bank policies requirements. However, the ultimate responsibility on procurement will lie in the PMT.

19. The owner's engineer financed under component 3(b) will provide support to the implementation of GESP and to the PMT by conducting the supervision of the envisaged investments under components 1 and 2. The owner's engineer will also validate the technical specifications before procurement packages are validated.

20. The GESP will be implemented in accordance with the Project Implementation Manual (PIM), which will be prepared by NAWEC prior to effectiveness.

21. A stakeholders Steering Committee (SC) will be put in place to provide advice on strategic questions related to the GESP's implementation. The SC will include the Ministry of Energy, the Ministry of Finance and Economic Affairs, the Public Utilities Regulatory Authority, and NAWEC. The role of the SC will be of particular importance in the supervision of the recommendations made by the service contractor to improve the effectiveness of NAWEC's processes.

VI. Safeguard Policies (including public consultation)

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment OP/BP 4.01	x	
Natural Habitats OP/BP 4.04		x
Forests OP/BP 4.36		x
Pest Management OP 4.09		x
Physical Cultural Resources OP/BP 4.11		x
Indigenous Peoples OP/BP 4.10		x
Involuntary Resettlement OP/BP 4.12		x
Safety of Dams OP/BP 4.37		x
Projects on International Waterways OP/BP 7.50		x
Projects in Disputed Areas OP/BP 7.60		x

Comments (optional)

VII. Contact point

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