

# PROJECT INFORMATION DOCUMENT (PID) CONCEPT STAGE

Report No.: PIDC17994

<b>Project Name</b>	Gambia Electricity Sector Support Project (P152659)
<b>Region</b>	AFRICA
<b>Country</b>	Gambia, The
<b>Sector(s)</b>	General energy sector (34%), Thermal Power Generation (33%), Transmission and Distribution of Electricity (33%)
<b>Theme(s)</b>	City-wide Infrastructure and Service Delivery (99%), Rural services and infrastructure (1%)
<b>Lending Instrument</b>	Investment Project Financing
<b>Project ID</b>	P152659
<b>Borrower(s)</b>	Ministry of Finance and Economic Affairs
<b>Implementing Agency</b>	National Water and Electric Company Ltd (NAWEC)
<b>Environmental Category</b>	B-Partial Assessment
<b>Date PID Prepared/ Updated</b>	02-Dec-2014
<b>Date PID Approved/ Disclosed</b>	09-Feb-2015
<b>Estimated Date of Appraisal Completion</b>	02-Jul-2015
<b>Estimated Date of Board Approval</b>	01-Sep-2015
<b>Concept Review Decision</b>	

## I. Introduction and Context

### Country Context

The Gambia is the smallest country on the African mainland. It stretches 450 km along the Gambia River. Its 11,285 km<sup>2</sup> 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 with a fairly high growth rate of 2.8 percent per year over the last decade. Most of the population (57 percent) is concentrated around urban and peri-urban centers.

In January 2014, the authorities initiated ambitious fiscal consolidation measures to reduce the fiscal deficit and government borrowing requirement following pronounced fiscal slippage in 2013 that had resulted in a fiscal deficit equivalent to 8.7 percent of GDP. The expenditure reduction and

revenue enhancing measures brought about a substantial reduction in the deficit to an estimated 4 percent of GDP in the first half of 2014. The macroeconomic situation has been deteriorating. The combined effects of the Ebola outbreak in neighboring countries and contraction in the agricultural sector have negatively impacting the key drivers of growth.

### **Sectoral and Institutional Context**

Approximately 35 percent, of Gambians have access to modern energy services. 60 percent of the population in the Greater Banjul Area (GBA) is served while only 6 percent of the population in the outlying provinces has access. The main constraints in improving access include lack of sufficient generation capacity, the inadequacy of the transmission and distribution network, over dependency on expensive fuel oil generation, poor performance of the power utility, and difficulties in regulation of the sector. According to the latest Investment Climate Assessment, almost 80 percent of firms mention electricity as a major or very severe constraint to their operation. Most of their complaints relate to the unreliability and cost.

Electricity is supplied by the National Water and Electric Company (NAWEC), a vertically-integrated water and electricity public company that handled generation, transmission, and distribution of electricity. NAWEC has approximately 65,000 customers in the greater Banjul area. 80% of these customers are billed on prepayment meters. Outside Banjul, NAWEC serves 7,000 customers through six isolated mini-grids using high speed LFO plants as base load power stations with very high operational costs. The Ministry of Energy is responsible for the implementation of government policy in relation to electricity supply & distribution, water management, petroleum products and renewable energy. The Public Utilities Regulatory Authority (PURA) was created by The Gambia Public Utilities Regulatory Authority Act of 2001. The Ministry of Finance plays an important role in the energy sector, by which they receive the recommendations of PURA, evaluate the financial implications, and provide recommendations to the President. Regarding the legal framework, an Electricity Law was passed in 2006 to promote cost-effective generation, transmission, and distribution of electricity, set standards for electricity services, determine appropriate tariffs, and enable a transition to a private investor controlled and operated electricity sector.

Generation cost is high due to reliance on fuel oil thermal power plants. The relatively high power tariffs (6.2 GMD or 21.2 US cents) compared to its neighbors represent an obstacle for households to get access to power and restrict economic growth. Few alternatives to fossil fuels have been developed. In the medium term, potential interconnections with neighboring countries offer an opportunity for The Gambia to access cheaper generation capacity – including from proposed hydropower projects such as Kaleta (240 MW) in Guinea and Sambangalou (128 MW) in Senegal.

The utility cannot meet growing energy demand (estimated at 5.5 percent per annum). The total installed capacity is approximately 89 MW, out of which, only half is currently available. The current peak load is estimated at around 50 MW. To stabilize the power system, the available generation capacity should be roughly 70 MW at present and approximately 145 MW in 2020. The grid has no reserve margin. In an attempt to limit load shedding, but also due to lack of cash flow, scheduled maintenance of generation plants has been postponed which increased breakdown frequency and reduced the efficiency of existing power plants.

The transmission network has a limited reach and inadequacies that reduce its effectiveness. For instance, there is no continuous (n-1) criterion on transmission level, therefore not enough

redundancies of the main assets exist in the distribution network and hence a failure of one component can lead to a system collapse which requires heavy interference and load shedding.

NAWEC has suffered financial distress in the past few years due to a spike in oil prices, coupled with low tariffs, high losses and low bill collection. NAWEC has had three consecutive years of losses that eroded its capital and increased liabilities to about four times its annual revenue. In 2013, the Economic Community Of West African States (ECOWAS) approved a grant of US\$ 30.1 (GMD 1.2 billion equivalent) to support NAWEC. This support will only provide temporary relief.

Despite the various recent tariff adjustments, the spread between the tariff and NAWEC's variable costs remains important. Urgent action is required to improve services and reestablish the financial equilibrium of the sector and to reinforce generation and transmission to remove electricity supply bottlenecks prior to the OMVG interconnection coming on line.

### **Relationship to CAS**

The proposed project is consistent with pillar 1 of the Second WBG Joint Partnership Strategy for the Republic of The Gambia for fiscal years 2013-2016 aimed at enhancing productive capacity and competitiveness in order to strengthen resilience to external shocks. In particular, Pillar I focuses on promoting a competitive investment climate, strengthening the agriculture and rural development sectors, including through drought recovery measures, and developing key supporting infrastructure, with a focus on energy and water sectors – with a view to strengthening the economy's resilience to external shocks including those related to climate change and extreme weather events.

The proposed project is also complimentary to the proposed OMVG Interconnection Project (P146830), which will be presented to the Board in the third quarter of FY15. OMVG offers the Gambia a low cost means to expand base load capacity by 55MW (40 percent of forecasted demand in 2020). The Gambia will be able to access new capacity at a cost of US\$0.11-0.14 per kWh, compared to its alternative of power from small diesel plants at US\$0.30-40 per kWh. This will reduce average cost of supply in The Gambia by at least 20 percent.

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

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

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

### **Key Results (From PCN)**

- Direct Project Beneficiaries of which, Female project beneficiaries (%)
- Generation Capacity of Conventional Generation constructed or rehabilitated under the project (MW)
- Transmission lines constructed or rehabilitated under the project (Km)
- Utility accounts separated for electricity, water/sewage (Y/N)

## **III. Preliminary Description**

### **Concept Description**

The proposed project will finance a combination of investments and technical assistance activities to improve services and help reestablish the financial equilibrium of the sector. Investments support will focus on urgent investments to rehabilitate and expand generation and transmission to remove

electricity supply bottlenecks. The investments will also complement and facilitate the import of less expensive power through the OMVG interconnection coming on line in 2017. At the same time, the technical assistance will support improved management practices and strengthen the capacity of NAWEC's which is critical and urgent to help improve cash flow and reduce losses.

**Component 1: Institutional Strengthening and Project Implementation Support (\$US5.00 million).** This component will finance a service contract for NAWEC for a period of approximately three years; including a service fee for the permanent mission of the service contractor (with key as technical, financial and commercial experts) to assist the Managing Director and his team to improve NAWEC's technical, financial and management capacity. The Service Contractor will also provide support NAWEC in the implementation of the project.

One of the priorities of the reform is the unbundling of NAWEC's accounts and later its operations by separating electricity operations from water and sanitation ones to allow a better focus on electricity services and avoid cross subsidies among the three services. In addition to the technical and management support, the service contractor will also play a significant role in supporting NAWEC in ensuring the pre-requisites for such separation. This component will also finance technical assistance to the Ministry of Energy and the Regulator (for instance in selecting priority investment projects). The scope of this support will be determined during project preparation.

**Component 2: Increase generation capacity (\$US9.00 millions).** This component will finance rehabilitation and modernization of a major thermal power plant which requires rehabilitation and provision of spare parts for regular and overhaul maintenance. This component will also finance an owner's engineer to assist NAWEC in supervising the works.

**Component 3: Reinforcement of transmission network (\$US4.50 million).** This component will finance the reinforcement of the transmission system to establish the (n-1) criterion as a planning principle at least at the transmission level and help establish key redundancies to protect system stability. Based on the results of load flow analysis, the overloaded substations will be upgraded. This will include installation of new transformers with high capacities and cabins in the distribution network. The same component will also supply the system protection equipment and meters at substations to measure power input and outputs and be able to establish grid losses.

#### IV. Safeguard Policies that might apply

<b>Safeguard Policies Triggered by the Project</b>	<b>Yes</b>	<b>No</b>	<b>TBD</b>
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	

**V. Financing (in USD Million)**

Total Project Cost:	18.50	Total Bank Financing:	18.50
Financing Gap:	0.00		
<b>Financing Source</b>			<b>Amount</b>
BORROWER/RECIPIENT			0.00
International Development Association (IDA)			18.50
Total			18.50

**VI. Contact point****World Bank**

Contact: Fatouma Toure Ibrahima Wane  
 Title: Senior Financial Specialist  
 Tel: 5352+4195  
 Email: fibrahima@worldbank.org

**Borrower/Client/Recipient**

Name: Ministry of Finance and Economic Affairs  
 Contact: Project Coordination Unit  
 Title:  
 Tel: (+220) 422-3304  
 Email:

**Implementing Agencies**

Name: National Water and Electric Company Ltd (NAWEC)  
 Contact: Ebrahima Sagna  
 Title: MD  
 Tel:  
 Email:

**VII. For more information contact:**

The InfoShop  
 The World Bank  
 1818 H Street, NW  
 Washington, D.C. 20433  
 Telephone: (202) 458-4500  
 Fax: (202) 522-1500  
 Web: <http://www.worldbank.org/infoshop>