

TERMS OF REFERENCE

POSITION: SENIOR POWER ENGINEER

1. BACKGROUND

National Water and Electricity Company Ltd, NAWEC, is preparing and implementing the Gambia-related part of the ECOWAS-Regional Electricity Access Project (Phase I). The Project Development Objective is to increase grid electricity access in Guinea-Bissau, Mali, and The Gambia. The project aims to provide access to around 1.1 million people in specific localities in each country selected, following a first-order least cost geospatial planning within a 100-km radius of the substations of the OMVG in The Gambia and Guinea Bissau, and the substations of the OMVS in Mali.

The project comprises three components: (i) Design and build of electricity distribution infrastructure (Medium Voltage - MV and Low Voltage - LV) to maximize new connections; (ii) Supervision of the construction and technical advisory; and (iii) Technical assistance and project management.

A Senior Power Engineer is now being recruited by NAWEC - The Gambia Project Implementation Unit (PIU), in relation with the World Bank, to work on relevant projects activities of the unit. The assignment will be for a period of one-year renewable, time-based.

2. SCOPE OF SERVICES

The Senior Power Engineer's responsibility will be ensuring technical preparation and monitoring of implementation of all the power lines and substations projects, under the PIU and in relation with the RCU and the owner's engineer. Activities to be performed include but are not limited to the following:

- i. Provide engineering support to the PIU during projects preparations, managements, and implementations
- ii. Provide inputs to specifications/employers' requirements/ToRs for bidding documents/RFPs, for power lines and substations;
- iii. Oversee project preparations, particularly in aspects related to designs, works, equipment specifications, and other technical aspects like substation protection and control system, under the general management of the PIU;
- iv. Provide technical support during bidding stages, prequalifications, shortlistings, bid evaluations, contract negotiations, drafting contracts, etc;
- v. Review all technical documents; designs, specifications, and construction schedule submitted by Contractors, ensuring strict control for proper and quality implementations of the project, in relation with the owner's engineer;
- vi. Ensure that bidding documents, project implementations, and contracts adheres to all technical details and international standards, for the lines and substations as well;
- vii. Attend Factory Acceptance Tests, and inspect the quality and quantity of the equipment
- viii. Supervise the implementations of all the projects to conform to approved design
- ix. Supervise commissioning conducted on all the projects and issue reports
- x. Follow up on correspondences between the RCU, Owner's Engineers, Contractors, and the other stakeholders

- xi. Monitor the implementation of the projects schedules to ensure adherence with the project timeline
- xii. Review the reporting from Contractors and Owners' Engineers
- xiii. Check and certify the invoices of Owners' Engineers and contractors
- xiv. Monitor the implementation of the Quality Management Plan set up by contractors and safety arrangements during works (Personal protective equipment, Staff certifications to handle specific electricity related tasks, etc.)
- xv. Collect all relevant information on the constructions, anticipate and identify problems and risks arising and recommend necessary actions to the Project Coordinator
- xvi. Assess and advise on all proposed technical variations and report on justification or otherwise of claims
- xvii. Respond effectively to any other job assigned by the Project Coordinator
- xviii. Contribute to elaborate Annual Work Plans, annual budgets, as well as the quarterly, biannual, and annual reports of the projects
- xix. Assist the Project Coordinator in supervising contractors' performances in handling technical issues, then provide corrective instructions as needed
- xx. Assist the Project Coordinator in the preparation during missions of supervisions, meetings with the RCU, internal meetings and Steering Committee meetings
- xxi. Other activities, as instructed by the Managing Director through the Project Coordinator.

3. QUALIFICATION REQUIREMENTS

Qualifications and skills requirements

- i. Must hold a Master's degree in Electrical Engineering or related fields;
- ii. Minimum 5 years relevant experience
- iii. Fluent in English and French
- iv. Good skills in information technology and communication tools;
- v. Ability to work in a multidisciplinary team;
- vi. Experienced computer user, including excellent knowledge of Microsoft Office suite;

General Experience

- vii. Excellent writing and reporting skills;
- viii. Significant exposure to the electricity sector with a minimum of 5years' professional experience in power engineering
- ix. Regional experience in working with multi-disciplinary teams on rural electrification projects is desirable

Specific experience

- x. Have been involved at least in two (2) large engineering projects on power grid extension/reinforcement or rural electrification projects MV/LV in the last five (5) years;
- xi. Experience and understanding of methodology of power system planning and analysis software, as well as rules for the interconnection of electricity networks;
- xii. Specific experience in substation design, construction, protection, control setting and coordination;
- xiii. Have a good knowledge of the issues and problems facing the energy sector in the ECOWAS region.