MINISTRY OF ENERGY AND MINERAL DEVELOPMENT (MEMD)

ELECTRICITY ACCESS SCALE UP PROJECT (EASP)

TERMS OF REFERENCE FOR THE SENIOR PLANNING AND DESIGN ENGINEER UNDER THE MEMD PROJECT IMPLEMENTATION UNIT

JUNE 2024

1 TERMS OF REFERENCE FOR SENIOR PLANNING AND DESIGN ENGINEER - PIU

1.1 Background

The Government of Uganda (GoU) has received funding from the World Bank for the implementation of the Electricity Access Scale-up Project (EASP) to be implemented over a period of five (5) years. EASP will support GoU's efforts to increase access to electricity for households, refugee and host communities, industrial parks, commercial enterprises and public institutions. This is intended to spur socio-economic transformation, in line with Uganda's Vision 2040, the National Development Plan (NDP III), Electricity Connection Policy (ECP) 2018 and to meet the Sustainable Development Goal 7 (SDG 7) of achieving universal energy access by 2030. EASP activities will build on earlier Government initiatives in the energy sector, to support the expansion and strengthening of the electricity distribution network, scale-up service connections within the network, and increase access to off-grid electricity in refugee settlements and their host communities (outside the existing electricity distribution network), and to clean cooking services and technologies.

The Electricity Access Scale up Project (EASP) will contribute to supporting the realization of the ECP objectives and will be implemented on an Investment Project Finance (IPF) approach. The EASP will be implemented by two main entities, namely the Ministry of Energy and Mineral Development (MEMD) and the Uganda Energy Credit Capitalisation Company Limited (UECCC). The two main entities will implement closely with the Ministry of Finance, Planning and Economic Development (MoFPED), Office of the Prime Minister (OPM), Ministry of Education and Sports (MoES), Ministry of Health (MoH), Ministry of Water and Environment (MoWE), Ministry of Local Government (MoLG), Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), Ministry of Works and Transport (MoWT), electricity distribution Service Providers, and other relevant sector stakeholders to implement the various project activities.

A Project Implementation Unit (PIU) will be established at the Ministry of Energy and Mineral Development (MEMD) to implement activities relating to grid expansion and connectivity, including scaling up of last-mile connectivity while supporting the necessary network expansion and strengthening through construction of grid extensions, upgrades, and intensification. Grid extension will involve investments in MV and LV network, together with the necessary transformer installations, to enable connection of households and high-priority

areas such as industrial parks, commercial consumers, and public institutions. For industrial parks, the project will finance construction of internal distribution networks and MV networks required for connection of the parks to the main transmission system. The PIU at MEMD will also be responsible for expansion of the enabling infrastructure that is critical to increase access to electricity within Refugee Hosting Districts (RHDs), including implementation of last-mile connection of household, commercial, industrial, and public institution consumers within the RHDs.

In order to support effective and efficient planning, design and development for the grid expansions and electricity service connections under the EASP, MEMD seeks to engage the services of a **Senior Planning and Design Engineer** to provide project planning and design support under the Project.

1.2 Objective of the Assignment

The primary responsibility of the Senior Planning and Design Engineer will be to undertake management for the planning, design and development function of the EASP under the Project Implementation Unit (PIU).

1.3 Scope of work

The scope of work will include but is not limited to the following:-

i) Work with the Planning, Design and Supervision Consultant (PDSC) in determining the distribution network configuration for optimum operation of the network to increase reliability, availability and security of distribution network in line with the grid code requirements;

ii) Update the distribution network diagrams after any change in the network for both internal and external use by consultants in line with departmental guidelines and carry out system studies to meet the required standards of power supply, reliability, availability and security to minimize technical transmission network losses and the unit cost of energy in line with grid code.

iii) Update network parameters and carry out load flows to determine the network loading network voltages and power system losses as part of the internal power system studies in line with the grid code.

iv) Coordinate project field visits to identify schemes for grid expansion, densification and intensification for approval by MEMD.

v) Participate in the grid expansion feasibility studies according to the pre-set Terms of Reference and in the preparation of grid intensification and densification annual plans to accommodate annual project targets as required by the grid code.

vi) Supervise the Planning, Design and Supervision Consultant (PDSC) during the project development and design stage to ensure timely deliverables.
vii) Coordinate designs and material quantities for selected schemes.
viii) Supervise the development of statement of requirements, technical specifications and preparation of bidding documents; to facilitate the procurement of materials and project contractors.
ix) Review the PDSC's payment certificate/fee notes and submit as necessary for payment and to ensure timely payment of consultancy fee notes.
x) Review project progress reports (inception report, scoping report, design and survey report, design drawings) submitted by the PDSC;
xi) Supervise stakeholder identification and involvement and to ensure participation of key stakeholders during EASP cycle;
xii) Carry out any other duties as assigned by the Project Manager provided these duties contribute to achieving the development objectives of the EASP project.

1.4 Person Specifications

a) **Qualifications**

i. Bachelor's Degree (Honours) in Engineering (Electrical/ Power Systems) from a recognized University/Institution

ii. Registration with the Engineers Registration Board.

b) **Experience**

i. At least ten (10) years of relevant professional experience, six (6) of which must have been at senior level in project implementation and management position(s) related to planning for distribution projects or utility operations and management.

ii. Specific experience in the implementation of large-scale projects in power supply / grid expansion related works financed by Multilateral/Development Financial Institutions such as the World Bank, ADB, AFD, KfW, China Exim Bank or equivalent will be an added advantage.

c) **Competencies**

i. **Technical**

a. Planning, organizing and coordinating
b. Financial management
c. Leadership and Human Resource Management
d. Analytical skills and Strategic thinking
e. Procurement, Disposal and contract management

f. Information and communication technology

ii. **Behavioral**

a. Assertiveness and Self confidence
b. Communicating effectively
c. Ethics and Integrity
d. Self-control and stress management
e. Concern for quality and standards

1.5 Duration of the Assignment

The Senior Planning and Design Engineer shall undertake the assignment on a full-time, EASP project-exclusive basis for a period of three (3) years renewable subject to satisfactory performance.

1.6 Appointment and Reporting Obligations

The Senior Planning Engineer will report to the Project Manager-PIU.

1.7 Duty Station

The Senior Planning Engineer will be based in the offices of the Ministry of Energy and Mineral Development, Kampala, Uganda, with travels to project implementation areas / sites for planning as and when the need arises.