



REQUEST FOR EXPRESSION OF INTEREST FOR THE DIGITAL TRANSFORMATION OF TRANSMISSION OPERATIONS & MANAGEMENT - PROVISION OF A FUTURISTIC AND WEB ENABLED TRANSMISSION SCADA/EMS/GMS SYSTEM PROJECT - ZESCO/017/2024

Background

ZESCO recently rolled out a ten-year strategic plan with a vision “to be an effective provider of reliable and environmentally sustainable electricity services to all customers by 2031”. Underpinning the attainment of this vision is the digital transformation agenda that shall result in improved customer satisfaction, optimum operational efficiency and business performance. A digital strategy will involve the rethinking of the use of technology in business processes and human capital optimization.

In order to deliver optimized customer value, digital transformation of the core area of ZESCO grid operations and management needs to be undertaken. The core technologies include SCADA, Energy Management System (EMS), Generation Management System (GMS) and Advanced Distribution Management System (ADMS) systems. Recent advances in technology have accelerated the full realization of customer centricity by providing a full range of functions that ensure full visibility, agility and mobility of the value chain.

The digital transformation will also include streamlining and optimizing the operational processes including expanding the scope of operation and management to second level monitoring which entails implementation of data analytics, efficiency engineering and real-time asset performance metrics. The transformation shall require building new competencies, change management and reskilling of all the categories of personnel that shall utilize and have access to the digital tools.

To this effect, ZESCO now seeks to partner with solution providers to undertake digital transformation in the operations and management of the power system.

Project Description

The project shall involve digital transformation of operations and management of the Transmission Grid. This will entail implementing change management initiatives with the objective of entrenching a digital culture in the operations and management of the transmission grid. The technology to be utilized and implemented shall be modern, futuristic, IoT enabled and best in class SCADA, advanced Energy Management Systems (EMS) and advanced Generation Management Systems (GMS) functions and systems. The system shall be fully web and mobile enabled to achieve full mobility in order to guarantee full access to real-time information for all stakeholders and eventual optimization of agile work processes and workflows in the operations of the power system.

ZESCO has deployed a number of online substation and other field technologies including but not limited to transformer information IED's, bushing health and vibration monitoring IED's. The new system shall be IoT enabled with support for standard integration technologies that shall be used to integrate all the real-time IED's. This information shall be utilized for centralized and advanced analytics, visualization, reporting, efficiency dashboard and performance dashboards in the second level monitoring system. This will also entail capacity building for advanced discipline specific analysts, efficiency engineers and performance engineers.

With the establishment of digital culture, it envisaged that ZESCO will provide reliable electricity services to all its customers with the attendant benefits of efficient operations and optimized business performance.

Objectives

Currently, the deployed operation technologies at the main control centers are primarily used for operations only. The objective of the digital transformation of operations and management in Transmission is to leverage on the latest state of the art technology that will help streamline business capabilities and entrench digital culture in order to gain optimized operational performance, efficiency and customer centricity in alignment with the ZESCO strategic plan.

Scope

The scope of works shall comprise design, redesign of workflow processes, engineering, installation, commissioning, change management and capacity building for a modern IoT enabled SCADA, EMS and GMS system with full web and mobile access to all stakeholders corporate wide and integration to ZESCO digital platforms.

The users shall include Control Room Operators, Data Analysts, Efficiency Engineers, Maintenance Engineers, Managers and Corporate Management Leadership. The system to be deployed shall be used for operations, management of the transmission grid and shall be integrated to EAM maintenance and planning modules.

Pre-Qualifying (PQ) Criteria/Eligibility Conditions

Technical Criteria:

The Bidder (Applicant) should have completed minimum five (5) digital transformation project of similar scope. The applicant's company profile should be submitted, and meet the following requirement;

- a) At least three years' experience in digital transformation having undertaken similar scope in the last 10 years.
- b) Provide a minimum of 3 of similar assignments undertaken in similar conditions in the last 10 years
- c) Provide conformance certification to international standards as proof of adherence to best practice for the systems that have been deployed in similar assignments.
- d) List of referees and respective contact details for previous clients with whom similar scopes of work was undertaken in the past and to which ZESCO can be authorized to undertake due diligence.
- e) Confirm availability of appropriate skills (Electrical/ICT/Automation Engineers)
- f) International bidders shall partner with a citizen bidder in line with the public procurement regulations. Applicants shall submit full description of their product and copies of any valid certificates of conformance to international standards for relevant systems. The Applicant should own, or demonstrate ability to provide for its exclusive use during the works, the following:
 - a) Project management team
 - b) Relevant test equipment
 - c) After sale support services
 - d) Adequate capacity building services and facilities
 - e) Change Management framework

Submissions made in a joint venture or association must be accompanied with a letter a letter of intent signed by the appointed Power of Attorney from the JV or association leader. In addition, the Applicant shall submit a Power of Attorney authorised to sign the EOI to be shortlisted.

Financial Criteria:

- a) The average annual turnover of the Applicant in the preceding three (3) financial years as on the last date notified for receipt of bid should not be less than ZMW12,500,000.00
- b) Notwithstanding anything stated above, the Client reserves the right to assess the capabilities and capacity of the Applicant to perform the contract, should the circumstances warrant such assessment in the overall interest of the Client.
- c) Net worth should be at least 10% of average turnover of previous three (3) years
- d) Applicant shall submit documentary evidence like audited annual financial statements for financial years 2020, 2021 and 2022.

ZESCO Limited now invites eligible reputable Applicants to indicate their interest in undertaking the scope of digital transformation of operations and management of the transmission grid. Interested Applicants must provide information indicating that they are technically and financially qualified to perform the services as indicated above. Applicant may associate/form a Joint Venture to enhance their qualifications. Submissions made in

a joint venture or association must be accompanied with a letter of intent signed by the appointed Power of Attorney from the JV or association leader. In addition, the Applicant shall submit a Power of Attorney authorised to sign the EOI to be shortlisted.

Interested solution providers may obtain further information from the undersigned, during office hours, 08:00 to 12:30 hours and from 14:00 -16:30 hours, local time using contact information as follows: phone number is +260-211-362314. The email address is felixmunsaka@zesco.co.zm

The Expressions of Interest should be deposited in the tender box located on the Ground Floor Main Entrance, RCC Building Procurement Offices P.O. Box 33304 10101, Lusaka, Zambia clearly marked "**REQUEST FOR EXPRESSION OF INTEREST FOR THE DIGITAL TRANSFORMATION OF TRANSMISSION OPERATIONS & MANAGEMENT - PROVISION OF A FUTURISTIC AND WEB ENABLED TRANSMISSION SCADA/EMS/GMS SYSTEM PROJECT - ZESCO/017/2024**" in sealed envelopes and addressed to the Managing Director, Zesco Limited, Stand No. 6949, Great East Road, Lusaka, Zambia, not later than **Friday, 22th March, 2024 at 10:30 hours local time.**

The closing date for receipt of submission shall be **Friday, 22th March 2024 at 10:30 hours local time. LATE SUBMISSIONS WILL NOT BE ACCEPTED.**

The Expressions of Interest shall be opened immediately thereafter in the Boardroom of the **Procurement Division** in the presence of applicants or their representatives who choose to attend.

**FELIX MUNSAKA
HEAD PROCUREMENT
FOR/MANAGING DIRECTOR
ZESCO LIMITED**