

# **TERMS OF REFERENCE FOR MECHANICAL, ELECTRICAL, PLUMBING ENGINEERING DESIGN CONSULTANCY FOR THE RELOCATION OF SEED PROCESSING CENTER**

**Subject:** Recruitment of a Consulting firm (The Consultant) for Mechanical, Electrical and Plumbing (MEP) Engineering Design of a Seed Processing Center at Gabiro (The Services)

**Date of starting:** After signature of the contract

**Period of the Works:** 2 Weeks

**Workplace:** Nyagatare District, Eastern Province, Rwanda (The Location)

## **1.0 BACKGROUND INFORMATION**

Agro-Processing Industries (API) Ltd (The Client) wishes to build to relocate its current Seed Processing Center from its current site to a new site at Gabiro, and has already done the designs for the corresponding Civil Works. The Client is now desirous of hiring a consultant to complete the Mechanical, Electrical and Plumbing Engineering Design and Specifications.

### **1.1 CURRENT STATE OF THE PROJECT**

A full study was conducted and concluded. The following documents are available:

- i. Architectural and Landscape design

### **1.2 RELATED FUNDS**

The project is funded by API.

## **2.0 OBJECTIVES & EXPECTED RESULTS**

### **2.1 OBJECTIVE OF THE CONSULTANCY**

The overall objective of this consultancy is to provide to compliment the available Architectural design with a detailed MEP Engineering Design.

- Electrical Engineering Design;
- Mechanical Engineering Design;
- Plumbing Engineering Design;
  - Corresponding Specifications;
  - Corresponding Bills of Quantities

### **2.2 RESULTS TO BE ACHIEVED BY THE CONSULTANT**

The general scope of work is:

- Electrical Engineering Design;
  - Corresponding Specifications;
  - Corresponding Bills of Quantities;
- Mechanical Engineering Design;
  - Corresponding Specifications;
  - Corresponding Bills of Quantities;
- Plumbing Engineering Design;
  - Corresponding Specifications;
  - Corresponding Bills of Quantities.

The Consultant shall be accountable, work hand in hand with the technical team of the Client and be able to address any design issue and to guarantee a smooth communication.

The scope of work is in four (4) categories:

**a) Mechanical Set:**

The Mechanical set will be composed of:

- Layout Drawings:
  - Draft 1;
  - Final drawings;
  - Addressing all construction permitting submission comments;
  - Developing necessary details for the construction documents;
- Specifications of all Mechanical set elements;
- Priced and unpriced Bills of quantities

**b) Plumbing Set:**

- Layout Drawings:
  - Draft 1;
  - Final drawings;
  - Addressing all construction permitting submission comments;
  - Developing necessary details for the construction documents;
- Specifications of all Mechanical set elements;
- Priced and unpriced Bills of quantities

**c) Electrical Set:**

- Layout Drawings:
  - Draft 1;
  - Final drawings;
  - Addressing all construction permitting submission comments;
  - Developing necessary details for the construction documents;
- Specifications of all Mechanical set elements;
- Priced and unpriced Bills of quantities

**d) Fire Protection Set:**

- Layout Drawings:
  - Draft 1;
  - Final drawings;
  - Addressing all construction permitting submission comments;
  - Developing necessary details for the construction documents;

- Specifications of all Mechanical set elements;
- Priced and unpriced Bills of quantities

**e) ICT and Security Set:**

- Layout Drawings:
  - Draft 1;
  - Final drawings;
  - Addressing all construction permitting submission comments;
  - Developing necessary details for the construction documents;
- Specifications of all Mechanical set elements;
- Priced and unpriced Bills of quantities

## **2.3 DELIVERABLES**

**a) First Draft of the detailed design.**

- Drawing layouts and details sets.
- Specifications documents
- Meetings with other sub- consultants – As needed.
- Revisions and addressing comments - As needed to comply with construction permitting requirements and complete the construction documents sets.

**b) Final Detailed design package/Construction permitting set.**

- Drawing layouts and details sets.
- Specifications documents
- Meetings with other sub- consultants – As needed.
- Revisions and addressing comments - As needed to comply with Contractor Bidding requirements and complete the construction documents sets.

## **3.0 REQUIREMENTS**

### **3.1 PERSONNEL**

The Consultant shall be qualified with a minimum of five (5) years of professional experience, required as described in this ToR.

The profiles of the key experts for this contract are as follows:

**a) Expert: MEP Engineer (s)**

- Qualifications and skills

- University degree (at least A0) in Electrical, Mechanical and Plumbing Engineering from a recognized University;
- Project management skills;
- Fluency in English, fluency in Kinyarwanda is an added advantage;
- Computer skills – Microsoft Office Suite, Microsoft Project, Adobe Acrobat, AutoCAD, ArchiCAD and/or other MEP Computer Aided Design Software;
- Certificate as registered Engineer in the Institution of Engineers of Rwanda (IER);
- Electrical Installations Permit (Class Z) by the Rwanda Utilities Regulatory Authority (RURA) for the Electrical-Mechanical Engineer.

**b) General professional experience**

- At least 5 years sound professional experience, including:
  - Technical studies; management and implementation of MEP design/installation projects;
  - Consultancy and supervision in designing and installation of MEP systems for public services, office buildings, industrial buildings, and/or telecommunication networks projects.

### **3.2 SUPPORTING STAFF**

To be proposed by the consultant if any.

The consultant shall perform the services and carry out their obligations with all due diligence, efficiency and economy, in accordance with general accepted professional standards and practices.

### **3.3 REQUIRED DOCUMENTS**

Before construction works begins, the consultant shall prepare and present to the client the following reports:

- Technical proposal;
- Financial proposal;
- CV including portfolio of works;
- Certificates for all personnel as registered engineers in IER, and relevant certificates issued by RURA

## **4.0 LANGUAGES**

During the assignment, any written document (hard or soft) to be shared between stakeholders shall be in English.

## **5.0 THE RIGHT OF THE CLIENT TO ACCEPT ANY BID, AND TO REJECT ANY OR ALL BIDS**

The Client reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to Bidders, unless the annulment was a consequence of its irresponsible conduct. In case of annulment, the Client shall inform all the Bidders in writing about the decision and all bids, if in hard copy, submitted shall be promptly returned to the Bidders.