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KAA/OT/MANDA/0142/2023-2024

30th May, 2024

To: All Tenderers

RE: SUPPLY AND INSTALLATION OF SOLAR POWERED SEA WATER DESALINATION EQUIPMENT AT MANDA AIRSTRIP

TENDER NO. KAA/OT/MANDA/0142/2023-2024

ADDENDUM NO. 1

The following are tender clarifications/addendum issued regarding the above tender in accordance with clause 7 of the tender document.

No.	Clarification	Response
1.	During the site visit bidders requested for extension of time	Bidders are hereby informed of the **New closing/Opening dates below**
2.	It was noted that the beach well was clearly described in the specifications but was missing in the BQs.	Bidders are hereby informed that the original BOQ has been expunged and replaced in its entirety with annexed BOQ
3.	All bidders agreed on a need to include in the preliminary evaluation criteria; a) EPRA certified personnel on Solar system design and installation. b) All bidders to be registered by the Ministry of water	Bidders are hereby informed of inclusion of below mandatory evaluation criteria: - a) Bidders to provide EPRA certified personnel on Solar system design and installation. (Certificate or letter) b) Bidders to provide registration certificate by the Ministry of water
4.	Request for clarification that the tank size is 10 Cubic meters	Bidders are hereby informed that the correct tank size is 25 Cubic meters

5.	During the site visit bidders requested for a formal clarification that the minimum plant room size is 8x4x 3 and not 6x4	Bidders are hereby informed that the correct minimum plant room size is 8x4x 3

The closing/opening date is hereby extended to **6th June 2024 at 11.00 a.m.** from **30th May, 2024 at 11:00 am**

Kindly ensure your tender is valid for a period of **126 days** and your tender security is valid for a period of 156 days from the NEW closing/opening date of **6th May, 2024 at 11.00. a. m.**

This addendum forms part of the bidding document and is binding on all bidders. All other conditions remain the same.

Vincent Korir
GM (PROCUREMENT AND LOGISTICS)
For: MANAGING DIRECTOR/CEO

2.1 SCHEDULE 1– SUPPLY AND INSTALLATION OF EQUIPMENT

	DESCRIPTION	UNIT	QTY	RATE		AMOUNT
				MATERIALS	INSTALLATION	
	Allow for Ksh 1,000,000 for Project office expenses for office refreshments, stationery, two communication and system monitoring GSM mobile phones and any other project administration cost to be expended as directed by the project manager					
	Supply all materials and construct a temporary site office	**Sum**				
	Design and construct a standard ventilated plant room (minimum 6x4x3M with a roof slab can take a 10000Liters tank load. There shall be an upper roof covering capable of taking all the solar panel loads for approval by Project manager	**Sum**				
	Carry out hydrogeological survey on area to be directed by the project manager to identify 3 sites of high production and best quality for beach well.	**Sum**				
	Supply stainless steel raw water pump minimum 1.7kW and separate solar power source panels for raw water from well to raised tank. Allow for 5M high above ground steel structure for the solar panel.	**Sum**				
2.1.1	**SEA WATER REVERSE OSMOSIS TREATMENT PLANT**					
2.1.1.1	Sea water reverse osmosis water purifier (As Spectra or equivalent and approved). Production 2.5 CM per hour operating on direct solar	No.	1			

	Allow for all fixtures, fittings and units to operationalize the system.					
2.1.1.2	Reverse osmosis feed pump	No.	1			
2.1.1.3	Anti-scaling dosing station	No.	1			
2.1.1.4	PH adjustment station	No.	1			
2.1.1.5	Permeate auto flash and CIP system	No.	21			
2.1.1.6	CPVC pipes DN65 PN16 and associated fittings	LS	1			
2.1.1.7	Raw water feed pump	No	1			
2.1.2	**PRE-TREATMENT AND BOOSTER PUMP SYSTEM**					
2.1.2.1	Deep bed sediment filters parallel connection. Complete with filtration media	No.	2			
2.1.2.2	Ion exchange water softener complete with resin and brine tank.	No.	2			
2.1.2.3	Pre-treatment pump and controls	No.	2			
2.1.2.4	Pure water booster set with controls.	No.	1			
2.1.2.5	25 cubic meters PVC buffer tanks	No.	4			
2.1.2.6	CPVC pipes DN50 PN16 pipes and associated fittings.	LS.	1			
2.1.2.7	Chlorine dosage station.	No.	1			
2.1.3	**POWER SUPPLY**					
2.1.3.1	Design, supply and install suitable power supply system(Minimum 30KW) that is appropriate for the proposed system	Sum	1			
	Supply and install changeover switch	No	1			
	Supply and install armored cable 4 core 10mm from generator room to desalination plant room and connect to changeover switch.	Sum	1			

2.1.4	**STORAGE TANK PLINTH CONSTRUCTION**					
2.1.4.1	Design, supply and install suitable plinth that is suitable for the proposed system	Sum				
	TOTAL FOR SCHEDULE 2					

2.2 SCHEDULE 2 – MANDATORY SPARE PARTS

Item	Description	Unit	Qty	Rate	Amount
2.2.1	Membranes	No.	16		
2.2.2	Stainless steel 316 fittings as elbows, hexagonal nipples and sockets 10pcs each (for use in the high pressure connections after high pressure pump)	Sum	1		
2.2.3	Membrane end caps	No.	4		
2.2.4	High pressure hose pipe	No.	4		
2.2.5	Industrial salt 50kg.	bags	50		
2.2.6	Anti-scaling agent chemical	Kg.	50		
2.2.7	PH adjuster chemical	Ltrs.	20		
2.2.8	Chlorine 65% granular presentation	Kg.	20		
	TOTAL FOR SCHEDULE 2				

2.3 SCHEDULE 3 –SUPPLEMENTARY ITEMS

Item	Description	Unit	Qty	Rate	Amount
2.3.1	Testing and commissioning of completed works	Sum			
2.3.2	2 copies of As-Built-Drawings	No	1		

2.3.3	2 copies of technical and operator manuals				
2.3.4	Portable TDS meter plus calibration kit	No	1		
2.3.5	Portable PH meter with calibration kit.	No	1		
2.3.6	Supply and install 3D touch controller with functional and monitoring capabilities with a capacity to connect all the subsystems, data storage system, facility to download power consumption data and connectable to Bacnet BMS without interphase. Supply and install GSM monitoring and messaging system for monitoring and alarm transmission. A support PC (HP Pavillion 14X360 Core I-7 16GB RAM 1TB SSD as directed by the Project Manager				
2.3.6	On the site technical and operator training on the installed system	No	6		
2.3.7	Excavate on roch, a beach well , 2M wdiamenter and minimum 10deep	CM	35		
	Supply all necessary materials and construct a concrete cover slab 200mm thick C25/20 reinforced with D12 at 200 centres complete with access and heavy duty cover approved by Civil Engineer	Sum	1		
	TOTAL FOR SCHEDULE 2				

2.4 SUMMARY OF TOTALS

Item	Description	Amount
2.4.1	Total for Schedule 1 – Materials and Installation	
2.4.2	Total for schedule 2 – Mandatory Spare Parts	
2.4.3	Total for schedule 3 – Supplementary Items	
	SUBTOTAL	
2.4.4	Add 5% contingency on subtotal item 2.3.1	
	SUBTOTAL INCLUDING CONTINGENCY	
2.4.5	Add 16% VAT on subtotal item 2.3.2	
	TOTAL TENDER SUM (INCLUDING VAT)	

Total tender sum in words:

_____

_____

_____

_____ _____

(Bidder's Signature) *(Date)*

For and on behalf of: _____

Witness: _____ Date: _____

Address: _____

Official Seal/Stamp:

Kenya Airports Authority

MINUTES OF PRE-BID MEETINING AND SITE VISIT FOR TENDER NO. KAA/OT/MANDA/0142/2023-2024 SUPPLY AND INSTALLATION OF SOLAR POWERED SEA WATER DESALINATION PLANT AT MANDA AIRPORT ON: 23/05/2024

TIME: 10.30HRS- 1400HRS

VENUE: MANDA AIRPORT VIP LOUNGE.

AGENDA

The purpose of the meeting was to ensure that all bidders got a clear understanding of the solicitation document and the project's requirements. The following areas were addressed,

1. Design and concept of the desalination plant
2. Specifications of the project
3. Contractual obligations and terms of payment
4. Site visit
5. Clarification of technical points in the bid document.

Members present

As per attached attendance register

MIN 1: 26.10.2022 OPENING REMARKS

The chairman Mr Felix Wanga welcomed the representatives of bidding firms to Manda Airport and called the meeting to order at 1030hrs then handed over the program to the Project Manager

Eng. S Karanja to coordinate the rest of the program.

MIN 2: INTRODUCTION

In his opening remarks, the Chair called for self-introduction for each one of the members present and he informed them the purpose of the pre-bid meeting, which was to clarify issues and to answer any question arising from the tender document for **Supply and installation of Solar powered Sea Water Desalination Plant in Manda Airport.**

MIN 3: OVERVIEW OF TENDER DOCUREMENT

Members were taken through the general over view of tender document and more emphasis was given to the Preliminary and technical requirements to enable the bidders make appropriate bidding decision with the regard to **Supply and installation of Solar powered Sea Water Desalination Plant in Manda Airport.** . Bidders we urged to familiarise themselves with the tender mandatory & technical requirements. Failure to meet any of the stated requirements will lead to disqualification during bid evaluation stage.

MIN 4: BIDDERS QUESTION & ANSWER

Bidders present were given opportunity to ask questions and seek clarifications.

a.) Beach Well Site and Hydrogeology

One bidders inquired inclusion of beach well in the BQs which was missing. The Project Manager Eng. Stanley Karanja promised to address the concern formally in an addendum

The bidders were advised and shown the area where a survey would be carried out to identify the best site for a beach well. On digging, water samples would be analysed.

b.) Size Design of the Equipment room

Another question was raised on whether KAA would provide designs for the plant room. A clarification was also sought on the required plant room size. In response, the Project manager referred the bidders to a requirement in the

document for a design for an 8x4x3M well ventilated plant room. Bidders were also taken to the proposed site which is next to the 75CM underground tank.

c.) Payment Terms

Clarification was sought on the possibility of revising the payment terms to 50% advance, 40% on supply and installation of equipment and 10 % on commissioning and training. The project manager advised all bidders to stick to the proposed payment schedule of 40% on Supply of equipment, 40% on Installation, 20% on commissioning and training with 10% retention on all certificates to the end of DLP

d.) Tank Size and Quantity

Another question raised was on the number and size of the tanks required.

Bidders were advised to stick to the number in the BQ but work with tank size of 10CM per tank. The bidders were taken through the proposed use of each of the tanks as follows. Tank 1 would take raw water from the well and feed into the Pre-treatment plant by gravity, Tank 2 would be used for handling pre-treated water, and tank 3 would hold the final product next to the plant while tank 4 would be positioned next to the terminal building for storage of treated water.

e.) Tender closing Date

Mr Kombo from Davis and Shirt life requested for extension of the tender closing date to allow for enough time to prepare the documents considering that there was a component of design which required more time. This was supported by all the other members.

The project manager promised to consider extending the period by one week to close on the 5th of June 2024

A.O.B

There being no any other business/question or clarification, the chair registered appreciation on behalf of KAA to the prospective bidders and the meeting was adjourned at 1400hrs

1) Chair Mr Felix Wanga sign..... 22/05/2024

2) Project Manager- Eng. Stanley Karanja. Sign..... 22/05/2024

3) Secretary - Ngaira Ishieti Sign..... 22/05/2024