

### KENYA ELECTRICITY GENERATING COMPANY PLC KGN-BDD -02-2023 RFx 5000012907

TENDER FOR DECOMISSIONING, REHABILITATION RELOCATION, AND INSTALLATION OF WIND MASTS.

8th June 2023

#### Addendum No. 1

In Accordance with the "Tender for Decommissioning, Rehabilitation Relocation, And Installation of Wind Masts." KenGen hereby issues Addendum No.1

# 1. ADDITIONAL SCOPE OF WORKS The below scope has been added, and shall be part of the technical requirements.

Schedule	Description	Additional scope					
SCHEDULE 1	Rehabilitation of wind mast	1.Erection of guard house					
	100m at Gus site 1	(concrete) 1.5m x2mx2m					
		2. Tensioning of the guy wires					
		3. The sensors will be installed with new					
		cables					
		4. Additional two booms for the					
		redundant anemometers installed side					
		by side at the prescribed height in the					
		Technical Specifications provided.					
SCHEDULE 2	Decommissioning,	a. Rehabilitation of guard house at site					
	Rehabilitation and	b. The sensors will be installed with					
	Relocation of 100 m wind	new cables					
	mast from Mt. Kulal and						
	installation at Gus site 2						
SCHEDULE 3	Installation of 100m mast at	1. Rehabilitation of guard houses at site					
	Gus site 3						
SCHEDULE 5	Rehabilitation of wind masts	a. Painting of mast with primer and two					
	Ngong III 50m	coats of reflective paint as per the					
		Aviation requirements					
		b. Fixing, and painting of the gates and					
		angle lines pillars					

		. Repla	cement of the chain link (heavy
		gauge	e) 15mx15m
		. Addit	ional booms for the redundant
		anem	ometer.
		. The s	ensors must be installed with
		new c	cables
		The	logger Must be fixed with
		lightr	ing arrestors.
		. Rehal	pilitation of the guard house
		(Roof	replacement and cover with
			sheet to protect the external
		timbe	
SCHEDULE 6			cement of the gate 3mx2mX2m
	Ngong III 80m		square tubes heavy gauge 2.5
		inch)	
			ng of square tubes pillars
			new sensors must be installed
			new cables
			pilitation of the guard house
			replacement and cover with
			sheet to protect the external
		timbe	
		_	cement of the chain link (Heavy
			e) 15mx15m new logger <b>Must</b> be installed
			ightning arrestors
			de additional booms for the
			idant anemometers.
SCHEDULE 7	Schedule for rehabilitation		sensors will be installed with
	of wind masts Bubisa East		cables.
	or write masts bubise hast		ional booms for the redundant
			ometer
			on of guard house
			rete) 1.5m x2mx2m. The guard
			should be raised at least 1m
		from	the ground to minimize
		floodi	
		l. Rehal	bilitation of the fence, new
		chain	link heavy gauge and
		replacer	nent of two concrete posts.
		e. Tensi	oning of the guy wires
SCHEDULE		_	ening of the guy wires to align
NO 8	Bubisa West	the m	
			ensors to be installed with new
		cables	s and additional booms for the

		redundant anemometers				
	c) Erection of guard house					
	d)	Rehabilitation	of	the	fence	
		(Additional two	cond	cete po	les) for	
		reinforcement)		-		

#### 2. REPLACEMENT OF SCHEDULE OF RATES

The Price Schedule is amended, and bidders shall fill this price schedule and disregard that in the tender document.

#### SCHEDULE NO. I: REHABILITATION OF WIND MAST 100m at GUS SITE I

ITEM NO.	ITEM DESCRIPTION	UNIT	QTY	RATE KSHS	AMOUN T KSHS.
1.0	Supply and Installation of Anemometers 5 units, Wind Vanes 2 units, Temperature sensor 2 units, Barometric Pressure Sensor I unit, Humidy sensor I unit in accordance with the requirements of IEC standard 61400-12-1 and Technical Specification	Sum	I		
1.1	Supply and Installation of 2 aircraft aviation warning reflector and light complying with the requirements specified by Kenya civil Aviation Authority and ICAO standard. The aviation light shall be complete with a switch controller.	Sum	I		
1.2	Erection of guard house (concrete) I.5m x2mx2m	Sum	1		
1.3	Tensioning of the guy wires	Sum	1		
1.4	The sensors will be installed with new cables	Sum	I		
1.5	Additional two booms for the redundant anemometers installed side by side at the prescribed height in the Technical Specifications provided.		1		
	SUB-TOTAL SCHEDULE NO. I				
	5% Contingency fee				
	I6% VAT				
	TOTAL SCHEDULE NO. I				

# SCHEDULE NO. 2: SCHEDULE FOR DECOMISSIONING, REHABILITATION AND RELOCATION OF 100 m WIND MAST FROM MT. KULAL AND INSTALLATION AT GUS SITE 2

ITEM	ITEM DESCRIPTION	UNIT	QTY	RATE	AMOUN
NO.				KSHS	T KSHS.
2.0	Decommissioning of 100m wind Mast and associated equipment from Mt. Kulal Site and restoration of the site and Transportation of the 100m lattice mast and associated instruments from Mt. Kulal to Gus Site 2	Sum	I		
2.1	Cost for the site survey and investigations, supply of foundation materials, detailed foundation designs and provide As-built documentation.	Sum	I		
2.2	Painting of mast with primer and two coats of reflective paint as per the Aviation requirements	Sum	I		
2.3	Installation of the 100m lattice mast complete with guy stays.	Sum	ı		
2.4	Installation, testing and commissioning of data logger and sensors complete with iPackGPS, Shelter box, PV panel 15W,SD Card and USB cable. (Logger will be provided by KenGen) The logger should be fitted with GSM network to relay data via email.	Sum	I		
2.5	Supply and Installation of Anemometers 5 units, Wind Vanes 2 units, Temperature sensor 2 units, Barometric Pressure Sensor I unit, Humidy sensor I unit in accordance with the requirements of IEC standard 61400-12-1 and Technical Specification	Sum	I		
2.6	Installation of Chain link fence 2m high with metallic posts for an area measuring 20 m X 10m. Fabrication of gate 2m X 2m gate with lock and padlock	Sum	1		
2.7	Supply and Installation of 2 aircraft aviation warning reflector and light complying with the requirements specified by Kenya civil Aviation Authority and ICAO standard. The aviation light shall be complete with a switch controller.	Sum	I		
2.8	Installation of Satellite communication system complete with 80Watt Solar panel, IX 60Ah Battery, wiring, Ethernet surge protection and mounting brackets. Complete build and tested. Satellite Router SIM, VPN Activation fee and	Sum	I		

	communication network setup which includes payment of VPN Activation fees and monthly satellite network connectivity fees inclusive of all data for a period of 12 months.			
2.9	Erection of concrete security guard house measuring 1.5m $\times$ 2m $\times$ 2m height	Sum	I	
2.10	Rehabilitation of guard house at site	Sum	1	
2.11	The sensors will be installed with new cables	Sum	I	
	SUB-TOTAL SCHEDULE NO. 2			
	5% Contingency fee			
	I6% VAT			
	TOTAL SCHEDULE NO.2			

#### SCHEDULE NO 3: SCHEDULE FOR Installation of 100m mast at Gus site 3

ITEM NO.	ITEM DESCRIPTION	UNIT	QUA NTIT	RATE KSHS	AMOUN T
140.			Y	KSIIS	KSHS.
3.0	Gus Site 2 mobilization and demobilization for installation.	Sum	I		
3.1	Cost for the site survey and investigations, supply of foundation materials, detailed foundation designs and provide As-built documentation.	Sum	I		
3.2	Supply and installation of 100m lattice mast complete with guy stays.	Sum	I		
3.3	Supply, Installation, testing and commissioning of data logger and sensors complete with iPackGPS, Shelter box, PV panel I5W,SD Card and USB cable. The logger should be fitted with GSM network to relay data via email and support web Interface	Sum	I		
3.4	Supply and Installation of Anemometers 5 units, Wind Vanes 2 units, Temperature sensor 2 units, Barometric Pressure Sensor I unit, Humidity Sensor I unit) in accordance with the requirements of IEC standard 61400-12-1	Sum	I		
3.5	Installation of Chain link fence 2m high with metallic posts for an area measuring 20 m X 20m. Fabrication of gate 2m X 2m gate with lock and padlock	Sum	I		
3.6	Supply and Installation of aircraft aviation warning reflector and light complying with the requirements specified by Kenya civil Aviation Authority and ICAO standard. The aviation light shall be complete with a switch controller.	Sum	2		
3.7	Installation of Satellite communication system complete with 80Watt Solar panel, IX 60Ah Battery, wiring, Ethernet surge protection and mounting brackets. Complete build and tested. Satellite Router SIM, VPN Activation fee and communication network setup which includes payment of	Sum	I		
	VPN Activation fees and monthly satellite network connectivity fees inclusive for a period of 12 months.	Sum	1		
3.8	Erection of concrete security guard sentry house measuring 1.5m X 2m x 2m height	Sum	I		

3.9	Supply of operational laptop (network ready with inbuilt data reception and transmission software	Sum	1	
3.10	Rehabilitation of guard houses at site	Sum	I	
	SUB-TOTAL SCHEDULE NO. 3			
	5% Contingency fee			
	16% VAT			
	TOTAL SCHEDULE NO.3			

### SCHEDULE NO. 4 DECOMMISIONING OF 50m MAST AT ELMOLO SITE AND TRANSPORTATION TO NGONG POWER STATION

Item	ITEM DESCRIPTION	Unit	Qty	Rate	Amount
4.0	Decommissioning of the site and retrieval of the logger and all the mast accessories and site restoration	Sum	I		
4.1	Transportation of the mast materials to Ngong Power station	Sum	I		
	SUB-TOTAL SCHEDULE NO. 4				
	5% Contingency fee				
	16% VAT				
	TOTAL SCHEDULE NO.4				

## SCHEDULE NO. 5 SCHEDULE FOR REHABILITATION OF WIND MASTS NGONG III 50m

Item No	Item Description	Unit	Qty	Rate	Amount
5.0	Installation, testing, and commissioning of data logger and sensors complete with iPackGPS, Shelter box, PV panel 15W, SD Card and USB cable. (Logger will be provided by KenGen) The logger should be fitted with GSM network to relay data via email.	Sum	I		
5.1	Supply and installation of <b>New</b> Anemometers 4 units, Wind Vanes 2 units, Temperature sensor 2 units, Barometric Pressure Sensor I unit, Humidity sensor I unit) in accordance with the requirements of IEC standard 61400-12-1	Sum	I		
5.2	Supply and Installation of aircraft aviation warning reflector and light complying with the requirements specified by Kenya civil Aviation Authority and ICAO standard.	Sum	ı		
5.3	Painting of mast with primer and two coats of reflective paint as per the Aviation requirements	Sum	1		
5.4	Fixing, and painting of the gates and angle lines pillars	Sum	I		
5.5	Replacement of the chain link (heavy gauge) I 5mx I 5m	Sum	I		
5.6	Additional booms for the redundant anemometer.	Sum	I		
5.7	The sensors must be installed with new cables	Sum	ı		
5.8	The logger Must be fixed with lightning arrestors.	Sum	I		
5.9	Rehabilitation of the guard house (Roof replacement and cover with iron sheet to protect the external timber	Sum	I		
	SUB-TOTAL SCHEDULE NO. 5				

5% Contingency fee		
16% VAT		
TOTAL SCHEDULE NO.5		

## SCHEDULE NO. 6 SCHEDULE FOR REHABILITATION OF WIND MASTS NGONG III 80m

Item No	Item Description	Unit	Qty	Rate	Amount
6.0	Supply, Installation, testing, and commissioning of data logger and sensors complete with iPack GPS, Shelter box, PV panel 15W, SD Card and USB cable. The logger should be fitted with GSM network to relay data via email and <b>Mus</b> t support web-based interface	Sum	1		
6.1	Reinforcement and alignment of the 80m mast members	Sum	I		
6.2	Painting of mast with primer and two coats of reflective paint as per the Aviation requirements	Sum	I		
6.3	Supply and installation of Anemometers 4 units, Wind Vanes 2 units, Temperature sensor 2 unit and Barometric Pressure Sensor I unit, Humidity sensor) in accordance with the requirements of IEC standard 61400-12-1	Sum	I		
6.4	Installation of two aviation obstruction light Supply and Installation of aircraft aviation warning reflector and light complying with the requirements specified by Kenya civil Aviation Authority and ICAO standard.	Sum	I		
6.5	Replacement of the gate 3mx2mX2m (Use square tubes heavy gauge 2.5 inch)	Sum	I		
6.6	Painting of square tubes pillars	Sum	I		
6.7	The new sensors must be installed with new cables	Sum	I		
6.8	Rehabilitation of the guard house (Roof replacement and cover with iron sheet to protect the external timber	Sum	I		
6.9	Replacement of the chain link (Heavy gauge) 15m×15m	Sum	I		

6.10	The new logger <b>Must</b> be installed with lightning arrestors	Sum	I	
6.11	Provide additional booms for the redundant anemometers.	Sum	1	
	SUB-TOTAL SCHEDULE NO. 6			
	5% Contingency fee			
	16% VAT			
	TOTAL SCHEDULE NO. 6			

# SCHEDULE NO. 7 SCHEDULE FOR REHABILITATION OF WIND MASTS BUBISA EAST

Installation, testing, and commissioning logger and sensors complete with PS, Shelter box, PV panel 15W, SD Card B cable. The logger should be fitted with etwork to relay data via email and Must to web-based interface and Installation of Anemometers 4 units, Yanes 2 units, Temperature sensor 1 unit rometric Pressure Sensor I unit, Humidity I unit) in accordance with the ments of IEC standard 61400-12-1	Sum	1		
Yanes 2 units, Temperature sensor I unit rometric Pressure Sensor I unit, Humidity I unit) in accordance with the ments of IEC standard 61400-12-1	Sum	I		
and Installation of aircraft aviation greflector and light complying with the ments specified by Kenya civil Aviation ity and ICAO standard.	Sum	I		
nsors will be installed with new cables.	Sum	1		
nal booms for the redundant meter	Sum	I		
on of guard house (concrete) I.5mm. The guard house should be raised at n from the ground to minimize flooding.	Sum	I		
itation of the fence, new chain link heavy nd replacement of two concrete posts.	Sum	I		
ning of the guy wires	Sum	I		
OTAL SCHEDULE NO. 7				
ntingency fee				
ΛT				
i	tation of the fence, new chain link heavy nd replacement of two concrete posts.  sing of the guy wires  OTAL SCHEDULE NO. 7	In from the ground to minimize flooding.  Itation of the fence, new chain link heavy and replacement of two concrete posts.  Sum SOTAL SCHEDULE NO. 7  Intingency fee	In from the ground to minimize flooding.  Itation of the fence, new chain link heavy and replacement of two concrete posts.  Italian of the guy wires Sum I STAL SCHEDULE NO. 7  Intingency fee	In from the ground to minimize flooding.  In from the ground to minimize flooding.  In the fence, new chain link heavy and replacement of two concrete posts.  In the guy wires are sum of the guy w

# SCHEDULE NO. 8 SCHEDULE FOR REHABILITATION OF WIND MASTS BUBISA WEST

Item No	Item Description	Unit	Qty	Rate	Amount
8.0	Supply, Installation, testing, and commissioning of data logger and sensors complete with iPackGPS, Shelter box, PV panel 15W, SD Card and USB cable. The logger should be fitted with GSM network to relay data via email and <b>Must</b> support web-based interface	Sum	I		
8.1	Supply and installation of Anemometers 4 units, Wind Vanes 2 units, Temperature sensor I unit and Barometric Pressure Sensor I unit, Humidity sensor I unit ) in accordance with the requirements of IEC standard 61400-12-1	Sum	1		
8.2 8.3	Supply and Installation of aircraft aviation warning reflector and light complying with the requirements specified by Kenya civil Aviation Authority and ICAO standard. The aviation light shall be complete with a switch controller	Sum	1		
8.4	Tightening of the guy wires to align the mast  The sensors to be installed with new cables and additional booms for the redundant anemometers	Sum	I		
8.5	Erection of guard house	Sum	1		
8.6	Rehabilitation of the fence (Additional two concete poles) for reinforcement)	Sum	1		
	SUB-TOTAL SCHEDULE NO. 8				
	5% Contingency fee				
	16% VAT				
	TOTAL SCHEDULE NO. 8				

#### **SUMMATION OF SCHEDULES**

ITEM		AMOUNT (Kenya Shillings)
SCHEDULE I		
SCHEDULE 2		
SCHEDULE 3		
SCHEDULE 4		
SCHEDULE 5		
SCHEDULE 6		
SCHEDULE 7		
SCHEDULE 8		
TOTAL AMOUNT	FINANCIAL	

#### 3. EXTENSION OF TENDER CLOSING DATE

INITIAL TENDER CLOSING DATE	REVISED TENDER CLOSING DATE
Tender closing date	Tender closing date
13 <sup>th</sup> June 2023 at 2.00 pm	20th June 2023 at 2.00 pm.
Tender opening date  13 <sup>th</sup> June 2023 at 2.30 pm	Tender opening date 20th June 2023 at 2.30 pm.

### **ACKNOWLEDGEMENT OF ADDENDUM NO.1**

We, the undersigned hereby certify that the Addendum is an integral part of the document and the alterations set out in addendum has been incorporated in the Tender for Proposal.

Tenderer	••••••	•••••	•••••	 ••••••
Signed				 
Dated				