



The Kenya Power & Lighting Co. Ltd.
 Central Office – P.O. Box 30099, Nairobi, Kenya
 Telephone – 254-02-3201000
 Fax No. 254-02-3201889
 Stima Plaza, Kolobot Road

Our Ref: KP1/9A.2/OT/038/ICT/22-23/JM/rmh

17th February, 2023

THE PROSPECTIVE BIDDERS,

Dear Sir/Madam,

ADDENDUM NO. 2 TO THE TENDER NO. KP1/9A.2/OT/038/ICT/22-23 SUPPLY OF SPARES FOR SCADA/EMS SYSTEM OPERATION AND MAINTENANCE

The following clarifications and amendments are made to the Principal Tender document (herein abbreviated as PTD) for Supply of Spares for SCADA/EMS System Operation and Maintenance.

1. RELATIONSHIP WITH THE PRINCIPAL TENDER DOCUMENT

Save where expressly amended by the terms of this Addendum, the Principal Tender Document shall continue to be in full force and effect. The provisions of this Addendum shall be deemed to have been incorporated in and shall be read as part of the Principal Tender Document.

2. CLARIFICATIONS MADE TO QUERIES ON THE TENDER DOCUMENT

The following are responses made to clarifications sought on various issues on the tender document and shall be deemed to form the Addendum

No.	CLARIFICATION SOUGHT	RESPONSE
1.	<p>LOT 3 - Item 1,2,3 Do you want single power supplies or dual supplies per unit? The first and last unit state 20FO (16X100FX-multimode 1300nm) (each with different connector options). Could you please confirm if you need 16 x 100Fx or 20 x 100Fx. And do you need any of these to be gigabit fibre?</p> <p>Similarly the second item states 12 RJ45 + 6 FO (16x100FX-multimode 1300nm-ST), can you confirm for this one as well exactly what ports you require.</p>	<p>Dual power supplies shall be required per unit</p> <p>For LOT3 ITEM 1- Rugged Substation Switch -2 x 10/100/1000Tx via RJ45 -16 x 100Fx MM Fibre via LC Connectors, 1300nm- with 16 no. MT-RJ to LC adapters with dual power supplies per unit</p> <p>For LOT3 ITEM2- Rugged Substation Switch -12 x</p>

No.	CLARIFICATION SOUGHT	RESPONSE
		<p>10/100/1000Tx via RJ45;4 x 100Fx MM Fibre via ST Connectors, 1300nm with dual power supplies per unit</p> <p>For LOT3 ITEM3: Rugged Substation Switch - 2 x 10/100/1000Tx via RJ45;16 x 100Fx MM Fibre via ST Connectors, 1300nm with dual power supplies per unit</p>

3. REVISED PRICE SCHEDULE, REQUIREMENT SCHEDULE AND DETAILED TECHNICAL SPECIFICATION FOR LOT 3

The Schedule of Requirement, Price Schedule and Detailed Technical Specification for **lot 3** are revised as per the attached **appendix I**

4. TENDER CLOSING DATE

The Tender closing date is extended from 24th February, 2023 to 2nd March 2023 at 10.00am.

All other terms and conditions remain as per the Principal Tender Document (PTD)

Yours faithfully,

For: **THE KENYA POWER & LIGHTING CO. PLC**



JANE MUIGAI

Aq. GENERAL MANAGER, SUPPLY CHAIN AND LOGISTICS

APPENDIX I**PRICE SCHEDULE FORM**

No	Description	Qty	Unit of Measure	Country of Origin	Unit Price DDP VAT Excl(Kshs)	Sub-total DDP VAT Excl. (Kshs)
1	Rugged Substation Switch -2 x 10/100/1000Tx via RJ45 -16 x 100Fx MM Fibre via LC Connectors, 1300nm- with 16 no. MT-RJ to LC adapters	5	No.			
2	Rugged Substation Switch -12 x 10/100/1000Tx via RJ45;4 x 100Fx MM Fibre via ST Connectors, 1300nm	1	No.			
3	Rugged Substation Switch - 2 x 10/100/1000Tx via RJ45;16 x 100Fx MM Fibre via ST Connectors, 1300nm	1	No.			
4	LC-LC Multi mode patch cords, 50 Meters	30	No.			
5	ST-ST Multi mode patch cords, 50 Meters	10	No.			
6	ST-LC Multi mode patch cords , 50 Meters	10	No.			
7	LC-FC Multi mode patch cords , 50 Meters	10	No.			
8	Signal Isolator	20	No.			
	TOTAL COST FOR LOT 3					
SUB-TOTAL						
VAT 16%						
GRAND TOTAL (KSHS)						

SECTION V - SCHEDULE OF REQUIREMENTS

Item	Description of Goods	Qty (Pc)	Final Destination	Incoterms	Earliest Delivery Date	Tenderer's offered Delivery date	Country of origin
1	Rugged Substation Switch -2 x 10/100/1000Tx via RJ45 -16 x 100Fx MM Fibre via LC Connectors, 1300nm- with 16 no. MT-RJ to LC adapters	5	National Control Centre	DPP	3 Months		
2	Rugged Substation Switch -12 x 10/100/1000Tx via RJ45;4 x 100Fx MM Fibre via ST Connectors, 1300nm	1	National Control Centre	DPP	3 Months		
3	Rugged Substation Switch - 2 x 10/100/1000Tx via RJ45;16 x 100Fx MM Fibre via ST Connectors, 1300nm	1	National Control Centre	DPP	3 Months		
4	LC-LC Multi mode patch cords, 50 Meters	30	National Control Centre	DPP	3 Months		
5	ST-ST Multi mode patch cords, 50 Meters	10	National Control Centre	DPP	3 Months		
6	ST-LC Multi mode patch cords , 50 Meters	10	National Control Centre	DPP	3 Months		
7	LC-FC Multi mode patch cords , 50 Meters	10	National Control Centre	DPP	3 Months		
8	Signal Isolator	10	National Control Centre	DPP	3 Months		

DETAILED TECHNICAL SPECIFICATIONS

No.	SPECIFICATIONS	KPLC MINIMUM REQUIREMENTS	BIDDER'S REMARKS/ COMPLIANCE
	LOT 3		
1	Rugged Substation Switch -2 x 10/100/1000T x via RJ45 -16 x 100Fx MM Fibre via LC Connectors, 1300nm- with 16 no. MT-RJ to LC adapters	<ul style="list-style-type: none"> • Industrially hardened fully managed Ethernet switch with dual power supply per unit • Input supply:36-110VDC or 85-264VAC screw terminal • IEC 61850-3 compliant (Strong EMC design to protect against EMI;-40 to 75oC operating temperature range; Must meet 50g anti-shock and 5-500MHz anti-vibration requirement • IEEE 1613 compliant (IEEE standard environmental and testing requirements for communications networking devices in electric power substations) 	
2	Rugged Substation Switch -12 x 10/100/1000T x via RJ45;4 x 100Fx MM Fibre via ST Connectors, 1300nm	<ul style="list-style-type: none"> • Industrially hardened fully managed Ethernet switch • Input supply:36-110VDC or 85-264VAC screw terminal with dual power supplies per unit • IEC 61850-3 compliant (Strong EMC design to protect against EMI;-40 to 75oC operating temperature range; Must meet 50g anti-shock and 5-500MHz anti-vibration requirement • IEEE 1613 compliant (IEEE standard environmental and testing requirements for communications networking devices in electric power substations) 	
3	Rugged Substation Switch - 2 x 10/100/1000T x via RJ45;16 x 100Fx MM Fibre via ST Connectors, 1300nm	<ul style="list-style-type: none"> • Industrially hardened fully managed Ethernet switch • Input supply:36-110VDC or 85-264VAC screw terminal with dual power supplies per unit • IEC 61850-3 compliant (Strong EMC design to protect against EMI;-40 to 75oC operating temperature range; Must meet 50g anti-shock and 5-500MHz anti-vibration requirement • IEEE 1613 compliant (IEEE standard environmental and testing requirements for communications networking devices in electric power substations) 	
4	LC-LC Multi mode patch cords, 50 Meters	2 core Fibre optic cable LC-LC connector type duplex FO length 50 meters; Designed to operate reliably in harsh usage environments and conditions, such as strong vibrations,	

		extreme temperatures and wet and dusty conditions.	
5	ST-ST Multi mode patch cords, 50 Meters	2 core Fibre optic cable ST-ST connector type duplex FO length 50 meters; Designed to operate reliably in harsh usage environments and conditions, such as strong vibrations, extreme temperatures and wet and dusty conditions.	
6	ST-LC Multi mode patch cords , 50 Meters	2 core Fibre optic cable ST-LC connector type duplex FO length 50 meters; Designed to operate reliably in harsh usage environments and conditions, such as strong vibrations, extreme temperatures and wet and dusty conditions.	
7	LC-FC Multi mode patch cords , 50 Meters	2 core Fibre optic cable LC-FC connector type duplex FO length 50 meters;Designed to operate reliably in harsh usage environments and conditions, such as strong vibrations, extreme temperatures and wet and dusty conditions.	
8	Signal Isolator	<p>ACT20P-CI-CO-S</p> <p>Number of inputs:1</p> <p>Sensor supply > 17 V DC at 20 mA, max 30 V @ open circuit, max 50 mA @ short-circuit</p> <p>Input signal 2-/3-wire transmitter, HART signal® bidirectional</p> <p>Input current 0...20 mA, 4...20mA</p> <p>Voltage drop ca. 3.8 V @ RLoad = 0 Ω; ca. 1.5 V @ RLoad = 600 Ω; (input = 20 mA)</p> <p>Number of outputs :1</p> <p>Output current 0...20 mA, 4...20 mA, HART® digital signal</p> <p>load impedance current ≤ 550 Ω</p> <p>Accuracy < 0.1 % of end value Configuration none</p> <p>Current consumption ≤60 mA (24V power supply, 20mA output)</p> <p>Galvanic isolation 3-way isolator, between input/output/supply</p> <p>Rail TS 35</p> <p>Step response time ≤ 0,5 ms</p> <p>Temperature coefficient 80 ppm/K</p> <p>Voltage supply 20...30 V DC</p> <p>EMC standards EN 61010-1:2011, UL 61010-1, EN 61326-1</p> <p>Galvanic isolation 3-way isolator, between input/output/supply</p> <p>Impulse withstand voltage 4 kV (1.2/50 μs)</p> <p>Insulation voltage 2 kV inputs / outputs /power supply</p> <p>Pollution severity 2</p> <p>Surge voltage category III</p>	