



KENYA ELECTRICITY TRANSMISSION CO.

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Our Ref: KETRACO/PT/011/2023

6th April ,2023

Notice to all Bidders.

RE: TENDER ADDENDUM AND CLARIFICATION 1

RE: SUPPLY AND DELIVERY OF SCADA & TELECOM EQUIPMENT. (TENDER NO. KETRACO/PT/011/2023)

The following amendments are made to the specified provisions of tender for Supply and Delivery of SCADA & Telecom Equipment.

(Tender No. KETRACO/PT/011/2023).

Find herein the Tender Addendum and Clarification No. 1 consisting of seven pages. This document should be attached to the completed Form of Tender.

The Closing Date shall be **18th April 2023 at 10.00am** Local time.

PETER NJEHIA
SENIOR MANAGER, SUPPLY CHAIN

LOT 1		SCADA EQUIPMENT			KETRACOs Response	
Item No	Item	Unit	Qty	Description / Specification.		Clarifications Sought by Bidders
1.1	Industrial Ethernet switches	Pcs.	5	Rack Mounted Industrial Ethernet switches with 6 optical fiber ports 24 RJ45 ports, 110VDC Power Supply	<p>a. Are dual or single power supplies required?</p> <p>b. For the optical fiber ports:</p> <p>i. What speed is needed; 100 or 1000?</p> <p>ii. What type (Single mode or Multimode)?</p> <p>iii. What Distance?</p> <p>iv. What Connectors?</p> <p>c. For the RJ45 ports, can we assume just 10/100Tx is fine?</p>	<p>a. Dual Power Supply b-(i) 100</p> <p>(ii) Multimode</p> <p>(iii) Not less than 1km, (iv) ST type of fiber connectors c. 10/100Tx is fine.</p>
1.2				Industrial Din rail mounted ethernet switches with 4 ST-fiber ports and 12 RJ45 ports, 110VDC Power Supply	<p>a. Are dual or single power supplies required?</p> <p>b. i. What speed is needed; 100 or 1000?</p> <p>ii. What type (Single mode or Multimode)?</p> <p>iii. What Distance?</p>	<p>a. Dual Power Supply b-(i) 100</p> <p>(ii) Multimode</p> <p>(iii) Not less than 1km,</p>
1.3		Pcs.	4	Industrial GPS Clock with 1 IRIG-B port and 2 SNTP ports with time server capacity of 60 devices, 110VDC Power Supply	<p>a. For the Network ports (SNTP) ports are just 10/100Tx copper Ok or are fiber ports needed?</p> <p>b. Have you got the antennae and antennae cable, or must that be included?</p>	<p>a. 10/100Tx Cu ports OK, No fiber ports required.</p> <p>b. Include Antennae, Cable + accessory kit.</p>
1.4		Pcs.	4	24-inch Industrial TFT monitor for station HMI screen+ Wireless Mouse and Keyboard	<p>a. What connector types are needed?</p>	<p>a. To have USB, VGA, DVI and HDMI ports</p>

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LOT 2	TELECOM EQUIPMENT	Clarifications Sought by Bidders	KETRACOs Response
2.0	OPGW Joint Boxes - Eaton Metallic Dome Enclosure OM-HM, Individual Assembly, LWL-HM/OM1 type with steel tower mounting sets, basic splicing sleeves, splice cassettes, heat shrinkable cable entries of assorted sizes with 2 blanking plugs , sufficient aluminum clamps or equivalent and splice trays made of FR ABS and all accessories	How many ports/cores, Pole or Wall mount?	Wall Mounted 48 Core
2.1	Fiber Optic Patch cables	Length? What is the diameter of the cable? 2.0/0.9mm? What is the type of adaptor? SC/LC/SC, APC/UPC? Is the cable one end pre-connected or both ends pre-connected? Is the patch cable simplex or duplex?	Length specified respectively from 2.2 to 2.20 The dimension of the patch cables is clearly defined as 9/125um, 0.9mm This is the general specification of the lot of items contained below from item 2.2-2.20 The specific connector types are thereby itemized respectively under the item 2-20.
2.2	10 Pairs Fiber Optic Patch cables		
2.3	20 Pairs Fiber Optic Patch cables		
2.4	10 Pairs Fiber Optic Patch cables		
2.5	10 Pairs Fiber Optic Patch cables		
2.6	20 Pairs Fiber Optic Patch cables		
2.7	15 Pairs Fiber Optic Patch cables		
2.8	15 Pairs Fiber Optic Patch cables		



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2.9	Fiber Optic Patch cables	Pairs	10	10m duplex single mode SC/UPC-SC/UPC		
2.10	Fiber Optic Patch cables	Pairs	20	10m duplex single mode LC/UPC-SC/UPC		
2.11	Fiber Optic Patch cables	Pairs	20	10m duplex single mode FC/UPC-SC/UPC		
2.12	Fiber Optic Patch cables	Pairs	30	20m duplex single mode FC/UPC-LC/UPC		
2.13	Fiber Optic Patch cables	Pairs	10	20m duplex single mode FC/UPC-FC/UPC		
2.14	Fiber Optic Patch cables	Pairs	20	20m duplex single mode FC/UPC-SC/APC		
2.15	Fiber Optic Patch cables	Pairs	20	20m duplex single mode FC/UPC-SC/UPC		
2.16	Fiber Optic Patch cables	Pairs	15	20m duplex single mode LC/UPC-SC/UPC		
2.17	Fiber Optic Patch cables	Pairs	20	20m duplex single mode FC/UPC-SC/UPC		
2.18	Fiber Optic Patch cables	Pairs	60	20m duplex single mode ST/UPC-FC/UPC		
2.19	Fiber Optic Patch cables	Pairs	60	40m duplex single mode ST/UPC-FC/UPC		
2.20	Fiber Optic Patch cables	Pairs	25	20m duplex single mode ST/UPC-LC/UPC		
2.21	Fiber Optic Patch cables	Pairs	25	20m duplex multimode ST/UPC-LC/UPC	What is the type of multi-mode fiber? OM1/OM2/OM3/OM4/OM5?	
2.22	Fiber Optic Patch cables	Pairs	20	10m duplex multimode FC/UPC-LC/UPC		Brugg Cables - Multimode, Fibre Optic Patch cable Duplex OM1 - 62,5/125µm Low noise,


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2.23	Fiber Optic Patch cables	Pairs	20	10m duplex multimode LC/UPC-LC/UPC	halogen-free (LSZH), metal-free Each fiber optic patch cord is delivered with individual measurement protocol
2.24	Fiber Optic Pig tails	Lot		Brugg Cables Fiber Optic Pig tails:	
			5	single mode FC/UPC connector packet with 50 pig tails	1.5m pigtails Correct 50 pigtails in a packet.
			5	single mode LC/UPC connector packet with 50 pig tails	The size of the pigtails is 9/125 single-mode
			5	single mode SC/UPC connector packet with 50 pig tails.	What is the length of the pigtail? Are they 50 pigtails in a packet? What is the diameter of the cable? 2.0/0.9mm?
2.34	SFP Modules	Lot		Part number: Optoway SPS-53120WG	Quantity in respective SFP Modules 2.35 to 2.41
2.35	SFP Modules	Lot	5	S-1.1 (1310nm, Short-haul) ~30 km Part Number LS38-A3S-TC-N-DD	

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2.36	SFP Modules	Lot	5	L-1.1 (1310 nm, Long-haul) ~60 km Part number LS38-A3L-TC-N-DD		
2.37	SFP Modules	Lot	5	L-1.2 (1550 nm, Long-haul) ~100 km Part Number LS48-A3L-TC-N-DD		
2.38	SFP Modules	Lot	5	X-1.2 (1550 nm, enhanced Long-haul) ~120 km Part Number LS48-A3U-TC-N-DD		
2.38	SFP Modules	Lot	5	Enhanced extended (1550 nm, Long-haul) ~145 km Part number LS48-A3U-TC-N-DX		
2.39	SFP Modules	Lot	5	1000BASE-XD (1310nm) ~ 50km Part number LS48-C3L-TC-N-DD		
2.40	SFP Modules	Lot	5	1000BASE-EZX (1550 nm, long haul) ~90 km Part number LS48-C3U-TC-N-DY		
2.41	SFP Modules	Lot	5	1000BASE-EZX (1550 nm, enhanced extended long haul) ~120 km Part number LS48-C3U-TC-N-DU		
2.42	RJ 45 Connectors	PCS	300	Rj45 Connectors with metal jacket CAT 6A with similar number of strain Relief boots.	Is the CAT 6A shield RJ45 information module or RJ45 coupler? could you please provide the reference picture?	
2.44	RS 232 to 485 converters	PCS	5	RS 232 to 485 converters for connecting energy meters	Could you please provide the reference picture?	

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2.45	Connectors	Kit	5	kits Heat Shrink Fork Connectors, 22-10 Gauge Tinned Copper Crimp Connectors Fork Terminals, Insulated Electrical Fork Connectors (3Colors/3Size) - 300 Piece KIT	Could you please provide the reference picture?	
LOT 3				<p>The following Fortinet items have reached end of life and are no longer available for support</p> <ul style="list-style-type: none"> 3.1 ,Access Point - FortiAP FAP-433F-E Indoor Wireless AP 3.3 Firewall - FortiGate 60F, FG-60F-BDL-950-36 3.4 Forti Switch - Forti Switch FS-124E 	<p>They have been replaced by</p> <ul style="list-style-type: none"> 3.1 Access Point - FortiAP FAP-231G-E, FC-10-PG231-247-02-36; include 3year 24x7 FortiCare Contract 3.3 Firewall - FortiGate 70F Firewalls, FG-70F-BDL-950-36; include 3 year 24x7 FortiCare and FortiGuard Unified Threat Protection (UTP) - SP-RACKTRAY-02 3.4 Forti Switch - FortiSwitch FS-124F-FPOE, FC-10-S124F-247-02-36; include 3year 24x7 FortiCare Contract 	<p>Maintain the original items requested unless a copy of official letter from manufacturer is provided.</p>

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