

Our Ref: KP1/9A.2/OT/098/ICT/23-24/JN/rmh

4th July, 2024

ALL PROSPECTIVE BIDDERS;

Dear Sir/Madam,

ADDENDUM NO. 4: TO THE TENDER NO.KP1/9A.2/OT/098/ICT/23-24 PROVISION OF SCADA EXPANSION IN EXISTING SUBSTATIONS

The following clarifications and amendments are made to the Principal Tender document (herein abbreviated as PTD) for Provision of SCADA Expansion in Existing Substations

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

The following clarifications were made on the tender document and shall be deemed to form the Addendum

No.	QUERIES	RESPONSE
1	For the 20 substations, is there SCADA in the substation or not	Consider that there is no SCADA, even if it exists we will need a new solution
2	Whether there are IED or BCU for 33kV and 11kV bays or not	This is to be established by bidders during site survey
3	If there are IED or BCU, what is the communication protocol and interface need	Hardwiring, or other standard protocols as indicated in tender (IEC60870-1-101/103/104, Modbus RTU, IEC 61850)
4	Whether the status indications such as CB status, DS status, ES status etc. have been connected to the binary of the IED or BCU or not	This is to be established by bidders during site survey
5	How many meters in each substation?	This is to be established by bidders during site survey. However, all bays should have provisions for meter integration whether meter exists or not
6	If they communicate to RTU, what is the protocol and interface of the meters?	Hardwired,/IEC 60870-103,/Modbus, IEC 61850

7	Please provide the protection schematic diagram of each bay	This shall be provided to the winning bidder for detailed design purposes
8	Is a wall mounted panel, okay? What are the dimensions recommended by KPLC	42U Cabinet for housing of Telecoms and SCADA equipment. Bidders will determine during site survey if they require an additional cabinet as a marshalling cubicle. The 48Vdc battery charger will be housed separately
9	What is the required number of Binary Inputs and Binary Outs per substation	This should be established by bidders during site survey and as guided on tender document, the minimum required signals are listed under the signal list per bay section
10	For each substation, Is the LCD display for RTU used as SCADA necessary?	This is not a requirement in the bid document'
11	How many channels are connected to the dispatching center?	At least 2 for distribution stations and 4 for transmission stations
12	Whether GPS needs to be provided for each substation	Yes, each RTU should be synchronized from GPS supplied in the contract
13	Kindly clarify the scope for Wundanyi 33/11kV S/S	5 Km of FO, RTU, telecoms & Power supply as required in the tender. The equipment available at site will be used by KPLC as spare
14	Is HMI required to be restored at Kabete 66/11kV S/S?	No
15	For 48VDC battery chargers, The spec says " One 48VDC string shall be designed for 100Ah capacity" yet another spec we are required to size the system" The battery and charger sets shall be sized to adequately supply the loads to be connected to the battery" The first specifications already specifies the capacity and size of the system. Can this be clarified?	Provide the higher of the two specifications
16	Confirm All the configuration and engineering works in Hitachi's Network Manager 9.2. SCADA in the NCC is excluded from the scope	Confirmed
17	Relating to telecommunication, integration is under KPLC scope. For us to finalise our solution proposal, we need to know the kind of interface available at each remote end.	Bidders are encouraged to provide a Point to point link from the new station to the remote existing station (Point of Presence), the RTU data will then be incorporated as a service in the existing Multiplexer. However, the existing equipment are Fox 515/615 or loop O9500.
18	For the RTUs, please provide the required number of Binary Inputs and Binary Outs per substation.	This should be established by bidders during site survey and as guided on tender document, the minimum required signals are listed under the signal list per bay section

19	Whether there are IED or BCU for 33kV and 11kV bays or not, If there are IED or BCU, the communication protocol and interface need to be clarified.	Hardwiring, or other standard protocols as indicated in tender (IEC60870-1-101/103/104, Modbus RTU, IEC 61850)
20	Whether the status indications such as CB status, DS status, ES status etc. have been connected to the binary of the IED or BCU or not.	This is to be established by bidders during site survey
21	How many meters in each substation? If they communicate to RTU, what is the protocol and interface of the meters?	This is to be established by bidders during site survey. However, all bays should have provisions for meter integration whether meter exists or not. Hardwired, IEC 60870-103,/Modbus, IEC 61850
22	For each substation, <ul style="list-style-type: none"> ➤ Is LCD display for RTU used as SCADA necessary? ➤ How many channels are connected to the dispatching center? ➤ Whether GPS need to be provided for each substation. 	LCD display is not a requirement 2 for Distribution Stations (66/11, 33/11 kV) 4 for transmission (220,132 kV)
23	We presume that we can quote in USD for Schedule 1 , kindly confirm	The bid shall be quoted in Kenya Shillings.
24	It keeps silence about payment term in the SCC, Kindly provide the same	The payment Terms are as follow; <ul style="list-style-type: none"> ➤ Approval of detailed designs (Telecomms, SCADA & PS) - 10% ➤ FAT & Training (SCADA, Telecomms and PS) -10% ➤ Upon Delivery of all equipment and as Inspected by KPLC- 40% ➤ On presentation of signed Step 3 Test Protocols for 1st 5 Stations – 5% ➤ On presentation of signed Step 3 Test Protocols for 2nd 5 Stations- 10% ➤ On presentation of signed Step 3 Test Protocols for 3rd 5 Stations - 10% ➤ On presentation of signed Step 3 Test Protocols for Last 5 Stations -- 10% ➤ Defect Liability – 5%

3. TABLE NO. 4 FIBER REQUIREMENTS

There are some changes in fiber links, on Table 4 for fiber requirements as below.

No.	Substation	Remarks	Initial Distance (Km)	Change	New Distance (kms)
4	WUNDANYI 33/11 kV	ADSS Extension required from Wundanyi KPLC Office to the substation	0	Change to 5 KM	5
15	INGOTSE 33/11 kV	20Km OFC from Kakamega SS	20.0	Change to 30 kms from Ingotse to Kakamega SS & backwards to Musaga	35
20	BUTERE 33/11 kV	30Km OFC from Rangala SS	30.0	Change to 15 kms from Mumias 33 kV SS	15
Total Extension			50		55

4. CLOSING DATE

The Tender closing date remains **19th July, 2024 at 10.00 am.**

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

Yours faithfully,

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

DR. JOHN NGENO, OGW
GENERAL MANAGER, SUPPLY CHAIN AND LOGISTICS