Kenya Power

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Stima Plaza, Kolobot Road,
Nairobi, Kenya

Our Ref: *KP1/9A.3/OT/09/17-18* Date: 27th October, *2017*
Your Ref:

TO: ALL PROSPECTIVE BIDDERS

Dear Sirs/ Madams

RE: ADDENDUM NO. 2 TO THE TENDER NO. KP1/9A.3/OT/15/17-18 FOR SUPPLY OF POWER TRANSFORMERS

Please refer to the above Tender.

The following amendments are made to the specified provisions of the Tender document for the Supply of Power Transformers.

1) **RELATIONSHIP WITH THE PRINCIPAL TENDER DOCUMENT**

Save where expressly amended by the terms of this Addendum, the PTD 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 and construed as part of the PTD.

2) **APPENDIX TO INSTRUCTION TO TENDERERS.**

Bidders are reminded on clause3.13.3 (a) on Manufacturers authorization is not applicable for this tender, as the tender is open to **MANUFACTURERS ONLY**

3) **BIDDERS QUERIES AND RESPONSES**

KPLC has received various requests for clarifications and respond as follows:

Responses for 7.5MVA -33/11kV & 23MVA 33 & 66/11kV Power Transformers

No	Clause/ Item	Query	KPLC Response
1	4.12.8 On load Tap changer 4.19 Fittings and accessories	The tap changer shall be of design and make approved by KPLC All fittings and accessories including Gas & Oil Actuated Relays shall be of design & make approved by KPLC In this context, please provide us the list of approved makes of OLTC, Fittings and Accessories to be considered for this tender	The items shall be provided as per the clauses 4.12.8 and 4.19 read in full. The requirements are given in the clauses 4.12.8 and 4.19 and shall be approved at evaluation as per clause 7.1 of the specification and before manufacture as per clause 7.2 of the specification. Please comply.
2	4.7.4 Impedance	The impedance voltage at extreme tappings and principal tapping shall be stated and shall be subject to tolerances in accordance with IEC 60076. The minimum as per IEC 60076-5 for this size of transformer is 8% Typical values for existing 7.5MVA -33kV 23MVA-33 & 66kV transformers in KPLC system at principal (nominal) tap are 9.8% - 10.1% The two clauses are contradictory in case of parallel operation. So please confirm the exact impedance for us to design and also to satisfy existing KPLC system	The Transformers shall be provided as per the typical values for existing 7.5MVA -33kV 23MVA-33 & 66kV transformers in KPLC system at principal (nominal) tap which are 9.8% - 10.1%
3	Schedule of requirements	For 23MVA – 33/11kV Power Transformers, the vector group is mentioned as YNyn0d1 and Dyn11 For YNyn0d1, an additional winding is to be provided with Delta connection. But except in this clause nowhere is it specified as tertiary winding. Hence, please confirm whether the vector group is YNyn0d1 or YNyn0	The vector group shall be YNyn0d1 for 23MVA 33/11 as indicated in the Schedule of requirements
4	4.8.2 Bushings	Bushings of 33kV and 11kV terminals shall be of the solid porcelain type. To satisfy insulation requirements, 33kV bushings may be of oil filled condenser type construction, draw out type and shall have capacitance test point Creepage distance of bushings shall not be	The clause 4.8.2 gives both options for 33kV bushings. Solid porcelain type is the preferred option. Please provide all necessary supporting documents as per clause 7 of the specifications.

<table>
<tr><th>No</th><th>Clause/ Item</th><th>Query</th><th>KPLC Response</th></tr>
<tr><td></td><td></td><td>less than 31mm/kV based on operating phase to phase voltage

We are pleased to inform you that, the 31mm/kV creep bushings are able to meet the required insulation levels. In this context, we would like to go with solid porcelain type bushings porcelain type bushings instead of condenser bushings for 33kV & 11kV. Kindly confirm. However, we will provide you the supporting test reports at the time of detailed engineering.</td><td></td></tr>
<tr><td>5</td><td>4.10.3</td><td>The minimum external clearances are as shown below:
<table>
<tr><td>Nominal system voltage between phases</td><td></td><td>33kV</td><td>11kV</td></tr>
<tr><td>Phase to Earth and Phase to Neutral</td><td>mm</td><td>485</td><td>300</td></tr>
<tr><td>Phase to phase between between phases of the same winding</td><td>mm</td><td>485</td><td>300</td></tr>
<tr><td>A line terminal of the high voltage winding and a line terminal of a lower voltage winding</td><td>mm</td><td>485</td><td>300</td></tr>
<tr><td>A live metal oil pipe work including conservator relief design.</td><td>mm</td><td>485</td><td>300</td></tr>
</table>
We are presuming that the given External clearances and insulations are including the altitude (2200m above sea level) for correction factor.
Kindly Confirm</td><td>The clearances given include correction factor and shall be provided as per the specification as a minimum. Better clearances are welcomed</td></tr>
</table>

No	Clause/ Item	Query	KPLC Response
6	4.11	The impulse level for 33kV & 11kV are 200kVp & 95kVp respectively We hereby inform you that, as per IEC 60076-3, the lightning impulse withstand voltage (BIL) for 33kV & 11kV is 170kVp & 75kVp. In view of this, please confirm whether to proceed as per IEC 60076.	Please provide in compliance with the specification.
7	4.9 Current Transformers	Current Transformers shall be installed in bushing turrets and shall be of the following quantities, rations, ratings and class as per clause 4.9.1 (Table) In this context, for PS class current (phase CTs) transformers, knee pint voltage, magnetizing current & Rct values are not mentioned in the technical specification. Hence, please provide us the values for us to consider the exact CT's as these are related to protection equipments (relays and circuit breakers) at your site.	Please provide in compliance with the specification.
8	5.3.3 Additional Tests	As per the technical specification, Condenser Bushing capacitance and tan delta test to be conducted during acceptance testing at our factory. In this context, we will provide you the type test report of condenser bushings from our supplier. Kindly confirm	Please provide in compliance with the specification.
9	5.3.3 Additional Tests	For 7.5MVA-33/11kV, the technical specification calls for measurement of power taken by the fans to be done during acceptance testing at our factory. We hereby inform you that 7.5MVA transformer is ONAN only. In view of this, fans are not required for this rating. Hence, there is no need to conduct this test "Measurement of power taken by fans" for this rating. Please confirm	The 7.5MVA is ONAN type so no need for this test.
10	7.15 Transporta-tion	As per clause 7.15 General conditions of contract, the supplier shall be required to meet all the transport expenses until delivery In this context, please confirm whether the bidder has to consider unloading charges also at the KPLC stores (or) not.	Bidder to meet all costs

No	Clause/ Item	Query	KPLC Response
11	Section IV - Schedule of Requirements of Goods	NOTE: All deliveries shall be made to the indicated sub-stations and stores. In this clause it is indicated that the deliveries to be made to substations and stores. Please inform if we need to deliver the complete transformer with accessories to substation or KPLC stores.	Complete transformers shall be delivered to the place stated in the schedule of requirements with all its accessories
12	4.19	As per Clause No. 4.19 - Fitting and Accessories it is mentioned that "All the Fitting & Accessories including Gas and Actuated relays shall be of a design and make approved by KPLC". Request you to kindly provide and send the list of approved make for all fitting and accessories as per KPLC.	The items shall be provided as per the clause 4.19 read in full. The requirements are given in the clause 4.19 and shall be approved at evaluation as per clause 7.1 of the specification and before manufacture as per clause 7.2 of the specification. Please comply.
13	Vector group for 23MVA, 33/11kV for Lanet substation	In tender documents details are mentioned rating wise and their respective vector groups. Whereas, for 23 MVA ,33/11 kV rating and for lanet substation, different vector groups mentioned at two different places. Kindly check and confirm the vector group, whether it is YNyn0d1 or Dyn11.	The vector group shall be Ynyn0d1 for 23MVA 33/11 as indicated in the Schedule of requirements
14	Tertiary Winding	For 23 MVA ,33/11 kV rating, vector group mentioned is YNyn0d1. We would like to inform you that if there is requirement of third winding (tertiary), then please provide us the Voltage rating and MVA rating of tertiary winding. If tertiary winding is loaded then also provide the Impedance Values between LV- Tertiary and HV-Tertiary winding.	The tertiary winding shall not be loaded. It shall be for magnetic balancing and shall have a rating sufficient to take short-circuit fault currents.
15	Letter of credit for International bidders	In tender documents Payment terms, it is mentioned that International bidders can request/propose Letter of Credit Payment Terms. It means International bidder can request for LC after contract award. Request you to kindly confirm that International bidders can propose Letter of Credit payment terms during bid stage and kindly specify the validity period of Letter of credit and when it will be open.	All bidders are required to note that clause 7.18.8 gives them an option for letter of credit, but clause 7.18.9 gives KPLC, the discretion to accept or reject the request. For LC validity refer to clause 7.18.8 (f)iv. LC opening is done after contract signing.
	Kenya Power change		

No	Clause/ Item	Query	KPLC Response
16	Schedule of Requirements	Lanet substation 132/33 kV substation TX 45 MVA 132/33KV OIL TYPE code 453199 and vector group as Dyn1. It is proposed to change it to Dyn11	The vector group shall be Dyn11 for the two transformers

4) SCHEDULE OF REQUIREMENT AMENDMENT

Bidders are notified that schedule of requirements has been amendded as follows:

SECTION IV - SCHEDULE OF REQUIREMENTS OF GOODS

For Supply of Power Transformers – Tender No. KP1/9A.3/OT/15/17-18

		7.5MVA 33/11KV TRANSFORMERS			
No	**Code**	**SUBSTATIONS**	**QTY**	**Vector Group**	**Tender Security(KSH)**
1	453192	Litein 33/11Kv substation	1	Dyn11	225,000.00
2	453192	Nyamininia 33/11kv Substation	1	Dyn11	225,000.00
3	453192	Kanyakine 33/11kv Substation	1	Dyn11	225,000.00
4	453192	Sagana 33/11kv Substation	1	Dyn11	225,000.00
5	453189	Kitui 33/11kv Substation	1	Dyn1	225,000.00
6	453192	Sibembe 33/11kv Substation	2	Dyn11	225,000.00
7	453192	Njoro 33/11kv Substation	1	Dyn11	225,000.00
8	453192	Chavakali 33/11kv Substation	2	Dyn11	225,000.00
9	453189	Makuyu 33/11kv Substation	1	Dyn1	225,000.00
10	453192	Webuye 33/11kv	1	Dyn1	225,000.00
11	453192	Awendo 33/11kv Substation	1	Dyn11	225,000.00
12	453192	Kisian 33/11kv Substation	1	Dyn11	225,000.00
13	453192	Isiolo 33/11kv	1	Dyn11	225,000.00
		TOTAL	**15**		

		23MVA 33/11KV TRANSFORMERS			
1	453182	Makande 33/11kv Substation	1	YNynOd1	495,000.00
2	453182	Lanet 33/11 kv Substation	1	YNynOd1	495,000.00
		TOTAL	**2**		

		23MVA 66/11KV TRANSFORMERS			
2	498030	Athi River 66/11kv substation	1	Dyn1	390,000.00
3	498030	Epz 66/11kv substation	1	Dyn1	390,000.00
		TOTAL	**2**		
		TX 23MVA 132/33KV OIL TYPE			
1	498033	Kamburu 132/33kv substation	1	Dyn1	690,000.00
2	498033	Chemosit 132/33kv	2	Dyn11	690,000.00
		TOTAL	**3**		

		TX 45 MVA 132/33KV OIL TYPE			
1	453199	Lanet 132/33 kv substation	2	Dyn11	660,000.00
2	453199	Nakuru West 132/33kv substation	1	Dyn11	660,000.00
		TOTAL	**3**		

SECTION V - PRICE SCHEDULE FOR GOODS

(TENDERER MUST INDICATE THE CURRENCY OF THE OFFER PRICE)

		7.5 MVA 33/11 TRANSFORMERS							
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
No	**Code**	**SUBSTATIONS**	**QTY**	**Vector Group**	**Delivery Destination**	**Nearest KPLC store**	**Country of Origin**	**Unit price DAP/VAT Exclusive**	**Total Price DAP/VAT inclusive**
1	453192	Litein 33/11Kv substation	1	Dyn11	Litein Substation	Kericho			
2	453192	Nyamininia 33/11kv Substation	1	Dyn11	Nyamininia Substation	Kisumu			

3	453192	Kanyakine 33/11kv Substation	1	Dyn11	Kanyakine Substation	Meru			
4	453192	Sagana 33/11kv Substation	1	Dyn11	Sagana Substation	Nyeri			
5	453192	Kitui 33/11kv Substation	1	Dyn1	Kitui Substation	Thika			
6	453192	Sibembe 33/11kv Substation	2	Dyn11	1.No.Sibembe Substation 1.No. Nairobi South Stores	Kakamega Nairobi South			
7	453192	Njoro 33/11kv Substation	1	Dyn11	Njoro Substation	Lanet			
8	453192	Chavakali 33/11kv Substation	2	Dyn11	Chavakali Substation	Kisumu			
9	453192	Makuyu 33/11kv Substation	1	Dyn1	Makuyu Substation	Thika			
10		Webuye 33/11 kv	1	Dyn1	Webuye Substation	Bungoma			
11	453192	Awendo 33/11kv Substation	1	Dyn11	Awendo Substation	Kisii			
12	453192	Kisian 33/11kv Substation	1	Dyn11	Kisian Substation	Kisumu			
13	453192	Isiolo 33/11kv	1	Dyn11	Isiolo Substation	Nyeri			
		23MVA 33/11KV TRANSFORMERS							
1	453182	Makande 33/11kv	1	YNynOd1	Mbaraki Stores	Mombasa			
2	453182	Lanet 33/11 KV	1	YNynOd1	Lanet Substation	Nakuru			

		23MVA 66/11KV TRANSFORMERS							
1	498030	Athi River 66/11kv substation	1	Dyn1	Nairobi South stores	Nairobi South			

2	498030	EPZ 66/11kv substation	1	Dyn1	Nairobi South stores	Nairobi South			

		TX 23MVA 132/33KV OIL TYPE							
1	498033	Kamburu 132/33kv substation	1	Dyn1	Kamburu Substation	Embu			
2	**498033**	**Chemosit 132/33kv**	**2**	**Dyn11**	**Chemosit Substation**	**Kericho**			

		TX 45 MVA 132/33 KV OIL TYPE							
1	453199	Lanet 132/33kv substation	2	Dyn11	Lanet Substation	Nakuru			
2	453199	Nakuru West 132/33kv substation	1	Dyn11	Lanet Substation	Nakuru			

5) DELIVERY SCHEDULE AND GUARANTEED LEAD TIME

The delivery schedule shall be six within (6) months after award. The Guaranteed Lead Time will also be six (6) Months (i.e Bidders time to Manufacture + Bidders to delivery).

6) CLOSING DATE

The tender closing date has been extended from 31ST October, 2017 to close on the 14TH November, 2017 at 10.00 a.m.

All other terms and conditions remain as per the Principal Tender Document.

Yours faithfully,

FOR: THE KENYA POWER & LIGHTING COMPANY LIMITED

BERNARD NGUGI
GENERAL MANAGER SUPPLY CHAIN.