Kenya Power

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: ***10th July, 2020***

M/s .....

Dear Sir,

ADDENDUM NO. 2 TO THE TENDER NO. KP1/9A.3/OT/12/NM/19-20 FOR SUPPLY OF DISTRIBUTION TRANSFORMERS (FOR LOCAL MANUFACTURERS ONLY)

The following amendments are made to the specified provisions of the Tender document.

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. CLARIFICATION MADE TO SKETCHES TO THE INTERESTED BIDDERS.

The following responses are made to clarifications sought on various issues on the tender document.

Query No.	Clause No.	Technical Specification Requirement	Prospective Bidder Question	KPLC Response
1	Clause 4.2.6 Table 1	Required characteristics and performance of the oil as per IEC 60422 and IEC 60296. The oxidation stability	Under KPLC requirement, it is indicated that the total acidity should be max 0.03 while the IEC 60296:2012-Specification specifies the Total Acidity, mgKOH/g as 1.2. Is this	The KPLC specification reference KP1/6C.1/13/TSP/08/001 Issue No. 2 Rev.0 dated 2015-07-31 shall apply. This provides for

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		@120 degrees C, 164 hr shall have a total acidity of 0.03mgKOH/g and sludge of 0.8%	requirement alright or there could be a typo error. The actual should be 1.2 as per the IEC 60296:2012-Specification.	a special grade mineral insulating oil with higher oxidation stability for extended service life. As per IEC 60296 the Acidity Limit shall be <0.01mgKOH/g of oil with measuring method as per IEC 62021-1.
2	Clause 4.2.2.1.5	Type testing for category 2 Manufacturers: This shall be exempted for new local manufacturers, who upon successful bid, shall be required to conduct type test and routine test on one unit of each rating at independent Third Party laboratory accredited to ISO 17025 and be witnessed by KPLC engineers. Upon successful tests, KPLC will issue clearance to manufacture.	Who will foot the cost of travel and accommodation for the KPLC Engineers to witness the type testing? How many KPLC Engineers will witness the testing? This needs to be clarified for it has a financial implication. In case a bidder is awarded all the three transformer ratings (TX 25KVA 11/0.242kV SPH Oil Type, TX 25KVA 33/0.242kV SPH Oil Type and TX 50KVA 33/0.42kV DYN11 Oil Type), why is he required to conduct type test and routine test on one unit of each rating at Independent Third Party Laboratory instead of a representative of all the others? Type Testing each unit of each rating will have steep financial implications?	KPLC will determine the number of engineers to witness and it will be the responsibility of KPLC to meet the travel and accommodation costs.
3	Clause 4.11 Table 11	Internal Insulation Levels-Power Frequency Withstand Voltage (kV, rms) and Lightning Impulse Withstand voltage(kV, peak)	Request for amendment of insulation levels as per IEC 60076-1:2011 and IEC 60071-1:2006 Referring to the above mentioned IEC specifications for insulation levels of distribution transformers, standard rated power frequency withstands voltage of nominal system voltage for 11kV and 33kV (kV, rms) is quoted to be 28 and 70(kV, rms) respectively contrary to your specification of 38 and 95 (kV, rms) respectively in your distribution transformers	The Basic Impulse Insulation Level (BIL) has not been revised from the previous specification and has been maintained as 95KV for 11kV and 200kV for 33kV. The Power Frequency withstand voltage was revised to harmonize with the BIL for insulation coordination. This insulation

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			specification 2019/11/25 documents. Your specification for insulation levels for distribution transformers 2015/09/02 specification conform to the mentioned IEC 60076-1:2011 and 60071-1:2006 requirements and of which we have been following from 2017 to date in our manufacturing and supply of distribution transformers without any reported case of failure; implying that our transformer quality record was good and therefore not justifiable to change the IEC standards and 2015/09/02 specifications. If the proposed changes in 2019/11/25 specifications are implemented, it will affect our test reports done in year 2017 in conformity to IEC standards and your previous specifications of 2015 implying that our test report will be invalidated of which we had not been informed earlier about the new specifications requirements which would take us more than 9 months to generate and consequently it will result to a substantial cost on the product and in turn be transferred to the client. Hence, we object to the new changes and request for your amendment to previous specifications.	coordination was informed by the current and future system conditions as well as the need to match the insulation levels of the rest of the equipment in the power system which have been 38kVrms for 11kV voltage class and 95kVrms for 33kV voltage class. Due to Covid-19 restrictions limiting international movement, which may affect immediate deployment of new testing equipment to meet the new requirements, KPLC suspends compliance with the 2019/11/25 requirements as far as power frequency is concerned. However, local prospective bidders are advised to take advantage of this moratorium , which applies ONLY for this tender, to build their own compliance capacities to meet the needs of the dynamic KPLC network conditions.
4	A.2	Type tests requirements.	As we all know the cost of doing type testing is very high. There are those new manufacturers who had just done type tests in readiness for the opportunity and many others. As per the clarification/addendum, all new manufacturers will have to manufacture a transformer for	Response to item 3 above applies. In addition, the successful new manufacturer, will have the prototype transformers approved by KPLC after award and

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			each rating and carry out type testing again thus nullifying the previous process and as it were, all the investment going down the drain. Why don't we suggest that as long as you have a type test, you are subjected to a supervised manufacturing process for each rating and the sample produced undergoes thorough testing by KPLC to assess and make sure the new manufacturers adhere to the strict specification and in line with the type tests. This will at least safeguard the investment already put in by new manufacturers. Also consider the number of transformers allocated to the new manufacturers against the investment to carry out a new type test.	before a purchase order is issued.
5	Clause 4.4.2.1	Winding materials requirements	In the transformer specification document items 4.4.2.1 referring to winding material, it states that the applicable standard is IEC 60317-0-1 (grade 3 copper) is to be applied yet, IEC 60317-0-1 in essence refers to copper grade 2. In the KPLC specifications for 'Enamelled round copper winding wire'- KP1/3CB/TP10/102, item 4.2.7 it says the copper shall be of grade 2 as per IEC 60317-0-1. Kindly confirm whether the primary winding copper materials is of grade 2 or grade 3.	Grade 2 enameled round copper wire shall apply.
6	Clause 4.3.3	System fault level	In specification cl. 4.3.3 for ground mounted and pole mounted (single phase as well as three phase) transformers, system fault level has been changed i.e. for 11kV-600MVA, & for 33kV-1500MVA from 11kV-500MVA & 33kV-1000MVA. However, we already did	System fault level is a dynamic system parameter informed by several system factors. The system fault level in KPLC power system has since increased thus the revision. All bidders shall comply with the

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			complete type tests including short circuit tests in 2017 as per precious version of specification for 11KV-500MVA & for 33kV-1000MVA.	new fault level requirements in their design of short-circuit currents withstand levels
7	Clause 4.11 Table 11	Internal insulation level for 11kV and 33kV voltage classes	In specification Table 11 for Ground Mounted and Pole Mounted (Single phase as well as three phase) transformers, Power frequency voltage withstand capacity has been changed i.e. 38kV rms for 11kV & 95kVrms for 33kV from 28kVrms for 11kV & 70kVrms for 33kV. However, Lightning Impulse withstand voltage test is same as per old version i.e. 95kVp for 11kV and 200kVp for 33kV. We already did complete type tests including Lightning Impulse test in 2017 as per previous version of specifications with 38kVrms for 11kV & 95kVrms for 33kV.	Response to item 3 above applies.
8	4.9.1.1. (of ground mounted) 4.9.1.2 (of pole mounted)	Arcing horns requirements	In specification cl. 4.9.1.1 (of Ground mounted) and cl. 4.9.1.2 (of pole mounted), requirement of arcing horn set, since the transformer already offered with single gap arcing horns as well as surge arrester as per cl.4.15/4.16. So it is like already double protection is there, and again one more has been added, so, it is difficult to provide all these in such a small transformer.	All bidders shall fully comply with the specifications
9	4.2.4	Hermetically sealed type requirement	In single phase pole mounted transformer specification cl. 4.2.4 it is mentioned that transformer shall be sealed type with 60mm gas cushion, all other specifications (i.e. ground mounted as well as pole mounted three phase) showing that transformer shall be sealed type with completely filled oil (i.e. without gas cushion). Earlier also in 2015, the same clause was	This is not the true position. Clause 4.2.4 has remained unchanged from the 2015-09-02 issue of the specification. The referred addendum is dated 2015-07-16 which is earlier that the specification date thus null and void.

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			given in specification but in one of the addenda (attached herewith for your reference) it is clearly mentioned that "Gas cushion is not acceptable" and it is correct since bushing is mounted in cover, and it is required oil to be filled up to the bushings and hence transformer shall be sealed type with completely filled with oil (i.e. without gas cushion). So we supplied all our transformers completely filled with oil (i.e. without gas cushion) and now also will offer same all transformers with sealed type with completely filled with oil. (i.e. without gas cushion) Hence we object the new changes and request for your amendment to previous specifications.	The requirement for a gas cushion of 60mm for single phase transformers remains unchanged and thus all bidders shall fully comply with the requirement.
10	Tender document Part B 6.2.3	Calibration and testing equipment	Point 2 Turns ratio required range was 0 to 2000: we have the two meters range of 0 to 1000 and 0 to 2000 but the calibration certificate we are holding only for the range of 0 to 1000, because KEBS they don't have capacity to check the range for 0-2000 Point 9 BDV test of the oil required ≥60kV capacity: we have capacity of 0-80kV but we don't have the calibration certificate because KEBS they don't have capacity to check the high voltage. Note: For the both machines, we planned to send calibration out of county but due to COVID-19, we were unable to get the services.	It is the responsibility of the bidder to fully comply with calibration of their test equipment at all times. Only calibration certificates whose expiry date was within the COVID pandemic period shall be considered during evaluation but the prospective bidder shall ensure calibration is done before commencement of manufacture.
11	A.2	Tests and inspection	Technical specification for pole mounted single phase oil type transformer Please correct typo on page 29/48 to read single phase	The correct reading would be ".....any of the pole mounted **single** phase distribution transformer on tender"

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			distribution transformers and not three phase distribution transformer (see attached extract)	

3. **TENDER CLOSING DATE**

The tender closing date has been extended from 14th July 2020 to 20th July 2020 at 10:00am and opening on the same day at 10.30am.

All the other terms and conditions remain as per the tender document.

Yours faithfully,
For: KENYA POWER & LIGHTING COMPANY LIMITED.

Dr. JOHN NGENO
GENERAL MANAGER, SUPPLY CHAIN