Kenya Power

The Kenya Power & Lighting Co. Ltd.
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Stima Plaza, Kolobot Road

Our Ref: KP1/6A.1/OT/4/23/B17/SM/aho 23rd February 2024

Dear Bidders,

CLARIFICATION NO.2 OF TENDER DOCUMENTS FOR PROCUREMENT OF DESIGN, SUPPLY, INSTALLATION & COMMISSIONING OF LODWAR 66/11kV SUBSTATION AND ASSOCIATED LINE WORKS, TURKANA COUNTY.TENDER NO. KP1/6A.1/OT/4/23/B17 LOT 1 &2

Clarification to bid document

The following responses are made to clarifications sought on various issues in the bidding document for procurement of design, supply, installation and commissioning of Lodwar 66/11kV substation and associated line works in Turkana County.

No.	Bidder Query/ comment	KPLC Response
1.	With reference to the Tender with NCB No: KP1/6A.1/OT/4/23/B17, kindly find the following queries for clarification.	
	• Kindly clarify on the Tender Number for this Tender. Clause No. ITT 1.1 in the Tender Data Sheet states KP1/6A.1/OT/4/23/B17 LOT 1 and KP1/6A.1/OT/4/23/B17 LOT 2 whereas Addendum No. 1 dated 19/01/2024 and Addendum No. 2 dated 25/01/2024 state KP1/6A.1/PT/4/23/B17.	Tender No. is KP1/6A.1/OT/4/23/B17
	• We take reference to Tender clause no. ITT 34 in Tender Data Sheet the currency of the Tender to be quoted is mentioned as Kenya Shillings. Kindly note that as per the Tender Price Schedules it is clear that Schedule No.1 is for the materials supplied from abroad which is contributing 70% of the Tender Value. As you are well aware all materials supplied from abroad are quoted in foreign currencies either USD/Euro. Hence we request you to kindly allow us to quote Schedule No.1 items in freely convertible foreign currency OR we request you to please allow us the exchange rate from foreign currency to Kenya Shilling for Schedule No.1 items to be feezed as the exchange rate on the date of Tender opening which will be fare for all the bidders and competitive bids can be submitted. We once again request you to kindly look into this matter for us to submit competitive bid and respond on the same.	Refer to clarification No 1

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	• We take reference to the revised price Schedule provided in Addendum 2 wherein Quantity of 66 kV Surge Arrester is mentioned as 6 Nos. However kindly note that we need 9 Nos. Surge Arresters (6 Nos for the Two Transformer Bays and 3 Nos. for Line bay). Kindly re-confirm the quantity of 66 kV Surge Arrester.	We need 6No. For the two Txs only – we DO NOT need surge arresters for the line. The line surges are taken care of by the remote source.
2.	• As per scope of work there is a requirement of Guard house mentioned. However, there is no separate item in Schedule No.4 of Price Schedule. Kindly confirm on the requirement of Guard House.	Guard house price: Please refer to price schedule line item "Chain link for the HV Switchyard Substation, Guard house & Toilet and Access roads in concrete (Cabro) blocks inside the Substation" item No. LOT1-410
	• With reference to KPLC Standard documents KP1/13D/4/1/TSP/10/005 and KP1/3CB/TSP/10/007, the following Current Transformer Core Details are mentioned: ▪ 66KV CT 1600-1000-800-400 (4 Core) ▪ 66KV CT 800-400 (4 Core) ▪ 11KV CT 400-200/1 (4 Core) ▪ 11KV CT 1200-600-300 (4 Core) ▪ 11KV CT 2400-1200 (4 Core) Kindly clarify on the Current Transformers required as the BOQ/GTP does not provide clarity regarding CT ratios.	The CT ratios are specified in the two referenced standard documents. For turns ratio, it is for the Manufacturer to state.
3.	Referencing Section II – Evaluation and Qualification criteria of tender document, Clause 3.1.6, we request a clarification on below raised requirement: (ii) Road and Civil work – NCA 1 to 3. Confirm whether we can provide NCA – Road works Contractor license & certificate as a response to this requirement.	Certificates for contractors for the Road and Building works NCA categories shall be acceptable.
4.	We bring to your notice, that NCA does not have a category called " Civil works", in its place NCA has five classes of works as below: • Water and Roads, classified under civil engineering works • Mechanical and Electrical classified under specialist engineering services. • Building engineering works Kindly clarify what NCA certificates & licenses are required? • Building Works • Road Works • Waterworks • Electrical Works • Mechanical Works	NCA 3 and above certificates are required for Building and Road works.

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5.	We kindly request clarification on the following issue: Due to the On-going Chinese New Year festivities, the China Market which is a rich source of manufacturers and vendors is currently on hold making it difficult for us to receive both technical and commercial proposals in full. We therefore make a formal request for four weeks (4wks) extension of time from **20/2/2024 to 19/3/2024**	Please refer to addendum No. 3
6.	As part of the tender submission checklist, it required that we submit a "National Construction Authorities (NCA 3 and Above for civil Works and NCA1 for electrical works) registration Certificate and a valid Tenderer's Practicing License for the relevant category". Please clarify if NCA 3 for civil works is also a requirement for Lot 2 - for 66kV lines or it only applies for Lot 1 that involves substation works.	This is required for only Lot 1 – Substation works.
7.	The transformer shall be designed for a 40 years lifetime under full load operation and be supplied together with all ancillary equipment for a complete installation. 40 years life-time expectancy to be provided only for insulation life-time of the transformer acc. to IEC60076-7.	The magnetic circuit, electrical circuit and insulation designs should last 40 years under normal operating conditions and with capability to withstand the dynamic effects of short circuits and system over voltages.
8.	On outdoor equipment, all bolts nuts and washers in contact with non-ferrous parts that carry current shall be of phosphor bronze. Stainless steel fasteners will be provided. Please confirm.	Both Phosphor bronze and stainless steel fasteners are acceptable.
9.	The noise level of the transformer shall not exceed 78 dB(A) when tested in accordance with IEC 60076. Transformer **sound pressure** level will not exceed 78dB @1m at ONAN **without** fans in operation conditions, 78dB @2m at ONAF conditions **with** fans in operation.	Since the transformer is designed for ONAN operation, the design should meet the requirement of noise level not more than 78dB measured 0.3m from the transformer and at 1/3h and 2/3h if the transformer height is more than 2.5m
10.	The transformer shall be suitable for parallel master-follower operation with each other and with previously supplied transformer of similar rating which shall remain in service on the substations covered by this contract, both in respect of transformer characteristics and control circuits on all relevant taps. The new and old transformers shall share the load subject to the tolerances of impedance and voltage laid down in, IEC 60076. The transformers are going to be produced as requested. Parallel operation request shall be considered by the customer while deciding the operational	The two transformers will be operated in parallel. The remote tap changer control cubicles should be shipped with master follower scheme implemented.

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	characteristics of the design. Out of scope to evaluate. Please confirm	
11.	The amount of insulation between turns shall be determined not merely by normal volts per turn, but also by due consideration of the line voltages and the service conditions, under heavy lightning storms. The transformers are going to be designed as per requested insulation level. There will not be any additional insulation to be considered. Please consider the meaning of heavy on the request of insulation level of the transformer.	The word "heavy" is used to emphasize the required adequacy of the winding insulation as described in the subsequent paragraphs of the referenced clause 4.1.3.2.2.3
12.	The insulation of the end turns of each winding adjacent to the transformer terminals shall be reinforced between turns to protect the windings satisfactorily against surges and transients. Details of the reinforcements shall be given in the Tender. Design/Manufacturing know-how information shall not be shared at any stage of the transformer designing/manufacturing processes. Please confirm	This clause is to emphasize the need for additional and adequate insulation for line end turns as they are subjected most to the lightning and switching overvoltages since the distribution of these transient voltages is not uniform along the winding.
13.	All windings and all fibrous and hygroscopic materials used in the construction of the transformer, shall be dried under vacuum and impregnated with hot oil. Full details of the drying out and vacuum treatment shall be furnished by the Tenderer. Design/Manufacturing know-how information shall not be shared at any stage of the transformer designing/manufacturing processes. Please confirm.	It is the process of drying and vacuuming which is required not the design technic.
14.	All similar coils shall be strictly interchangeable. Full detailed description of the windings shall be submitted with the Tender. Design/Manufacturing know-how information shall not be shared at any stage of the transformer designing/manufacturing processes. Please confirm	Please provide grade, type and material of winding
15.	The magnetic circuit shall be earthed to the clamping structure at one point only through a removable link placed in an accessible position beneath an inspection opening in the tank cover. For providing 2kV 50Hz core insulation test requirement, the core earthing will be terminated on the top cover via DIN bushing. Please confirm.	OK
16.	Guides shall be provided inside the tank to facilitate the lowering into the tank of the core and coils and their raising and correct positioning. The guides shall extend from the bottom of the tank to within 150 mm of the top of the tank. Guides for active part locating purpose will not be as per described in the specification. Transformer manufacturer standard solution is applicable. Please confirm	OK

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17.	A rail for connection of safety belt shall be arranged on the tank cover Pins for Totem brand protection provision can be provided. For any detailed rail, please indicate the requirement clearly. Not provided in the current offer.	This is a general requirement for suitable connection of safety belt during transformer maintenance work
18.	Current transformers as indicated in scope of works shall be mounted in the bushing turrets. Since the technical characteristics of CTs are not clearly defined, they are out of scope to supply. Only WTI CT to be provided. Please confirm or provide the CT details	Refer to issued tender document
19.	Zinc spray will not be applied at any stage of the manufacturing processes due to HSE limits of Hitachi Energy. In the offer RAL7033 color to be provided. If the customer changes the color, this may require additional payment since the external are outsourced.	The final colour shade shall be RAL 632 (Admiralty Grey) according to BS 381C
20.	Two copper pipes shall be connected to the two pet cocks on the relay, extended to position 1 m above ground level, and fitted with stopcocks for sampling and testing purposes. Separate oil compartments compartment shall have separate Buchholz relays. However, the OLTC chamber shall be equipped with pressure rise relay instead. Pipes will be steel on 2 sides of Buchholz relay. Separate OLTC compartment will have oil flow relay together with spring type pressure relay (not spring type) on it. Please confirm.	OK
21.	The indicators shall be provided with two sets of alarm/trip contacts, adjustable to close at any temperature between 45°C and 150 C such adjustment being possible without dismantling the instrument. Oil temperature indicator will have -20 +140 scale, winding temperature indicator will have 0+160 scale onto it. Please confirm.	OK.
22.	From an automatic voltage regulator in the substation (normal control) Tapcon 230 Pro that will enable the parallel operation at site to be provided in a remote control panel. Please confirm.	Confirmed
23.	Oil level gauge trip signals are not available due to the nature of the accessory. Only alarm signals to be provided	Under clause 4.1.3.2.9.5 on Alarm and Trip Signals, Oil level low alarm shall be sufficient.

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

DR. JOHN NG'ENO, OGW
GENERAL MANAGER SUPPLY CHAIN & LOGISTICS