



Kenya Power

*The Kenya Power & Lighting Co. Ltd.
Central Office – P.O. Box 30099, Nairobi, Kenya
Telephone – 254-02-3201000-Telegrams 'ELECTRIC'- www.kenyapower.co.ke
Stima Plaza, Kolobot Road*

Our Ref: KP1/6A.1/PT/8/11/A56

9th January, 2017

M/s

Dear Sir/ Madam:

CLARIFICATION No 2: ON ICB No: KP1/6A.1/PT/8/11/A56 FOR PROCUREMENT OF DESIGN, SUPPLY AND INSTALLATION OF A LABORATORY (INCLUDING TESTING EQUIPMENT AND CIVIL WORKS) FOR TESTING OF LIVE LINE EQUIPMENT

1. CLARIFICATION TO BID DOCUMENT

The following responses are made to clarifications sought on various issues in the Bidding Documents for Procurement of Live line equipment.

No.	Query	Response
1.	We kindly request Kenya Power to provide a deed plan of the proposed area of works	Land as shown at pre-bid visit. Contractor to optimize the land use as per the specifications.
2.	The nearest main water supply pipe – distance required. The distance to the sewer line	Refer to specifications; a detailed design Issue – to be identified at the topographical survey.
3.	Would both single phase and three phase supply be readily available for the contractors on site?	Yes
4.	Kindly confirm if AC testing can also be considered as most manufactures manufacture AC testing equipment.	Requirements is for both AC and DC
5.	A BOQ for extra accessories/fluids is not provided in the tender document – kindly advise in what schedule the bidder can accommodate those costs.	As per General Conditions of Contract, GCC 24.2
6.	As per the site visit conducted today – will Kenya Power clear the site for the contractor as power lines are currently passing through the proposed site or the contractor has to accommodate the costs of shifting the lines in their proposal?	Power lines to be relocated by KPLC, but any other site clearance to be done by the contractor.
7.	GTP for Hipot tester	Attached

Yours faithfully,

For: KENYA POWER & LIGHTING COMPANY LIMITED.

ENG. ELIUD LIMO
Ag. PROJECTS DEVELOPMENT MANAGER

Guaranteed Technical Particulars for DC Hipot test set

ANNEX A: Guaranteed Technical Particulars (to be filled and signed by the Manufacturer and submitted together with relevant copies of the Manufacturer's catalogues, brochures, drawings, technical data, sales records, four customer reference letters, the manufacturer's experience and copies of complete type test or routine test reports for tender evaluation, all in English Language)

Tender No.

Equipment: DC Hipot Test set

Clause	Bidder's offer (indicate full details of the offered Equipment for each requirement of the specification)
Manufacturer's Name and address	
Country of Manufacture	
Bidder's Name and address	
Model of the equipment	
1. Scope	
1.1 Digital Portable DC Hipot/Megohmmeter with output Voltage of up to 200KVDC	
2.0 References	
4.1 Design and Construction	
4.1.2 Weight and dimension	
4.1.3 Hipot test set shall have Megohmmeter capability	
4.1.4 Hipot test set shall have full 'Automatic' or 'Manually' adjustable test option.	
4.1.5 Hipot test set shall have a separate HV tank and Control Box	
4.1.8 Hipot test set shall have an integral Emergency -off Switch	
4.1.9 Hipot test set shall have automatic internal discharge circuitry	
4.1.11 Hipot shall have upgradeable software	
4.2 OPERATION	
4.2.1 Hipot test set shall perform high voltage DC Proof/Hipot tester and high voltage Megohmmeter tests.	
4.2.3 Automatic data logger with adequate storage of test results	
4.3 TEST RESULTS	
4.3.2 Capability to uploading and downloading test result to a laptop via RS232 or USB port	

and or Ethernet	
4.4.1 Capability to perform self-diagnostics and calibration/validation checks at power-up.	
4.5.1 Input Voltage: Single phase 240 V AC 50Hz	
4.5.2 Output voltage: 0-200 KVDC at 5mA, continuously adjustable	
4.5.3 Output polarity: Negative, Positive grounded	
4.5.5 Duty: Continuous, captive charging	
4.5.6 Control Box and HV tank weight: (Specify)	
Voltage/Current displays: (specify)	
4.5.7 Mega ohm meter range : (specify)	
4.5.8 Safety features: Zero start interlocks, Emergency stop button	
4.5.9 Protection features: Surge, transient protection and automatic internal discharge circuitry	
4.6.0 Operating temperature -5 ⁰ C to + 45 ⁰ C	
4.6.2 Memory : At least 50 test records	
4.6.3 Computer Interfaces: RS232 and USB port	
4.6.4 Operating system: Compatible with MS Window 7 or	
4.6.5 Laptop: Operating System :MS Windows 7/8, running on Intel Core i7	
4.6.6 Accessories:	
i) Input cable with BS top Plug- 3mts	
ii) Return cable with Clip and Boot-6mts	
iii) Output cable with Clip and boot-6mts	
iv) Ground lead with clip and boot-6mts	
v) Grounding stick with lead and clip- 6mts	
vi) Rugged Control carrying case with handles	
vii) Laptop and communication cables	
4.8 QUALITY MANAGEMENT SYSTEM	
4.8.1 Quality Assurance Plan	
5.0 TEST AND INSPECTION	
5.1 Shall bemanufactured and tested in accordance with the relevant international Standards.	
5.3 Copies of type test or routine test reports to be submitted with the tender	
5.4 Drawings, catalogue and technical data for the Hipot test set to be supplied shall be submitted to KPLC for approval before start of manufacturing	

60. MARKING AND PACKING	
7.1 WARRANTY AND TRAINING	
7.1. Supplier shall be responsible for training on the use of the equipment	
7.1.2 Warranty period	
7.2 DOCUMENTATION	
7.2.1 Copies of the Manufactures catalogues, manuals, drawings and technical data shall be supplied together with the equipment	
7.2.3 Three manuals on use, care, storage and routine inspection/testing procedures all in English Language, shall be provided during the delivery of the equipment	

.....

Manufacturer's Name, Signature and Stamp

Guaranteed Technical Particulars for VLF AC Hipot test set

ANNEX B: Guaranteed Technical Particulars (to be filled and signed by the Manufacturer and submitted together with relevant copies of the Manufacturer's catalogues, brochures, drawings, technical data, sales records, four customer reference letters, the manufacturer's experience and copies of complete type test or Routine test reports for tender evaluation, all in English Language)

Equipment: VLF AC HIPOT TEST SET

Clause	Bidder's offer (indicate full details of the offered Equipment for each requirement of the specification)
Manufacturer's Name and address	
Country of Manufacture	
Bidder's Name and address	
Model of the Equipment	
1.0 SCOPE AND DESIGN	
1.3 Design and construction to comply with the scope of the specification. Submit relevant information.	
4.1.1 AC Hipot test shall confirm to the specification referenced in section 2 of this standard	
4.1.2 AC Hipot test shall be portable and being easily transported to the field for cable testing	
4.1.3 Hipot test set shall be a combined AC	
4.1.4 Selectable range (0-200KVAC)	
4.1.5 Hipot test set shall have a full 'Automatic' or 'Manual test option	
4.1.6 Real time output waveform	
4.1.8 Short circuit protection	
4.1.9 Integral 'Emergency -off' switch	
4.1.13 integral test timer and zero start interlock	
4.1.14 Hipot Test set shall have upgradeable software	
4.2.0 OPERATION	
4.2.3 Automatic data logger with adequate storage of test results	
4.2.4 Shall have 'Capacitance Measurement' circuit for pre-determine cable/load capacitance prior to conducting the VLF	

Hipot test	
4.2.5 Charging current meter	
4.2.2 Data upload capability/down load to a Laptop	
4.3.0 TESTING AND RESULTS	
4.3.1 Shall generate the test results automatically for exporting them to MS Word or MS Excel for detailed analysis	
4.3.2 Interface with a laptop via RS232 or USB port and or Ethernet	
<ul style="list-style-type: none"> a) Vacuum Interrupter (Bottle) Test b) Fully automatic or manual cable test sequence complying relevant standards c) True Symmetrical sinusoidal, load independent output waveform across the full range. d) Real-time display of actual output waveform. 	
4.5.0 Self Diagnostics and Calibration	
4.5.1 Supply Voltage	
4.6.0 VLF AC Output requirement	
1. Output voltage	
2. Output waveform	
3. Output frequency	
4. Resistance Range	
5. Duty	
6. AC mode output capability	
7. Metering Voltage and current	
8. Metering Accuracy	
9. Resolution	
10. Safety	
11. Memory	
12. Computer Interfaces	
13. Operating temperatures	
4.7 ACCESSORIES	
4.7.1 Laptop- i7 Operating on Win 8 or higher,	
4.7.2 Cable Accessories: Communication, Output -30mts, and Ground-30mts	
4.8 Quality management system	
5.0 Factory acceptance testing and inspection	
5.3 Copies of type test or Routine test reports shall be provided	
5.4 Drawings, catalogues and technical data for the VLF Ac test set to be submitted to KPLC for approval before manufacturing.	

60. Marking and Packing	
7.1 WARRANTY AND TRAINING	
7.1.2. Supplier shall be responsible for training on the use of the equipment	
7.1.3 Warranty period	
7.2.1 Copies catalogues, drawings and technical data shall be supplied with the equipment	
7.2.2 Three manuals on use, care, storage and routine inspection and testing procedures all in English Language, shall be provided during the delivery of the VLF AC Hipot test set.	

.....
 Manufacturer's Name, Signature and Stamp

