



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/1/18/A69

22nd, June, 2018

Dear Sir/ Madam

**CLARIFICATION No.3 OF BIDDING DOCUMENT FOR ICB NO:
KP1/6A.1/PT/1/18/A69 PROCUREMENT OF DESIGN, SUPPLY, INSTALLATION AND
COMMISSIONING OF TRANSMISSION SUBSTATION AND LINES (AFD) PROJECT DATED
10TH APRIL, 2018.**

1. CLARIFICATION TO BID DOCUMENT

The following responses are made to clarifications sought on various issues in the bidding document for procurement of transmission substations and lines and associated attachments.

No	Bidder Query/Comment	KPLC Response
1	132kV cable length – for Kipevu SS OHL bay connection to terminal tower of 132kV OHL 132kV underground cable is foreseen, in the length of 2km (MBA -053) Please confirm that 2km is cable	2Kms is the HT cable length as per clarification no.1
2	132kV cable –FO cable: If FO cable are required for this part of the line where 132kV cable will be installed. If yes, please add necessary quantity of FO cable in the BOQ.	600M of 48 cores single mode Underground fibre optic cable and splicing boxes is required from 132kv bay to take off tower at Kipevu substation.
3	TL 132kV Kipevu- Mbaraki – length of line- As per original BOQ, item TL-001 was 6.5km of 132kV single circuit three-phase transmission line on monopoles with single 30/7 (Lynx) 175mm ² ACSR conductor per phase with fittings, insulators and all other necessary materials. As per Amendment No.1, part of this TL - 0.75km conductor is changed from ACSR 175 to ACFR 175mm ² – new BOQ item TL-001A. Please confirm if item TL-001 remains part of BOQ, and if length of line with ACSR conductor remains 6.5km or shall be 6.5km-0.75km (part with ACFR conductor)?	The 175mm ² ACSR conductor remains 6.5km per phase as per issued bidding document
4	TL 132kV Kipevu- Mbaraki- length of OPGW. As per item TL-004 6.0km of OPGW is required for this line, now when 0.75km is added with different conductor type ACFR instead of ACSR, if length of OPGW will remains 6.5 km or shall be extended for 0.75km?	The length of OPGW shall remain as per TL-004 of issued bidding document
5	33kV line at monopoles 132kV Kipevu- Mbaraki – length of line- As per original BOQ, item TL-002 was 6.5km Materials for transfer of existing 33kv lines on the monopoles as double circuit 33kv lines. As per Amendment No.1, part of this TL - 0.75km conductor is changed from ACSR 150 to ACFR 175mm ² – new BOQ item TL-001B. Please confirm if item TL-002 remains part of BOQ, and if length of 33kV line with ACSR conductor remains 6.5km or shall be 6.5km-0.75km (part with ACFR conductor)?	TL-002 remains unchanged as per issued bidding document
6	33kV line TL-006A Materials for transfer of 11/0.43KV Overhead line fittings and conductor to the new 33kV overhead line- 4km lot. We understand that on 4km of 33kV line there is 11kV or 0.4kV line which shall be transferred to 33kV line- new conductors, insulators and fittings/accessories shall be provided, while line poles are existing. Please confirm!	Shall use the concrete poles for new 33kv 10nos. lines

No	Bidder Query/Comment	KPLC Response
7	33kV cable at Mbaraki SS-incomer to GIS- cable length. As per BOQ item MBA-036 1km/lot of 33kv incomer cables in S/c 800mm Sqr. Copper including termination kits, sealing ends and GIS connections shall be provided. We understand that 1km is total cable length (2 connections between PT and GIS, 3 single phase cable per connection), not length of cable route. Please confirm	1 km is total cable length as per issued bidding document and amendment no.1
8	33kV cable at Mbaraki SS- outgoing from GIS- cable length. As per BOQ item MBA-037 10km/lot of 33KV feeder out cable s/Core 630mm Sqr. Copper inclusive of terminations kits and, Surge arrestors and sealing ends and GIS connections shall be provided. We understand that 10km is total cable length (10) outgoing lines from GIS, 3 single phase cable per feeder, as per Amendment item d) 5 lines of 0.4km length, lines of 0.2km length, one line of 0.3km length and one line of 0.5km length- total line length 3.2km x 3 single phase cables per line – 9.6km, plus 0,4km for spare feeder), not length of cable route. Please confirm! FO cable for 33kV cables- length. As per BOQ item MBA-039 lot/10km of 48 core Underground fiber optic and 10no. ODFs is required. We assume that this FO cable shall be laid together with 33kV cables for 10 GIS outgoing feeders. If so, than length of this FO cable shall be equal to 33kV cable route- app,.10km/3-3.33km not 10km. Please check and confirm.	10Kms is total cable length for all 33kv GIS feed outs as per issued amendment no.1 Total length of Underground Fibre optic shall be 4kms and 10(ten) ODFs MBA-039 is amended to 48core Underground fiber optic and 10nos. ODFs 4Km/lot
9	Mandatory spare parts for Power Transformers are not specified in the Schedule no. 1 part ST- where other mandatory spare parts is given. Please check and confirm – is there are list of PT mandatory spare parts?	Power transformer spares not required as per issued bidding document.
10	Please check and confirm which type of 33kV GIS is required- HV GIS as described in 29 or MV GIS as described in 37.4.7(sample drawings sent for understanding	MV 33KV indoor GIS as per clause no. 29 of issued bidding document, amendments and Clarifications.
11	Please check and confirm how to proceed. Should we quote for 33kV GIS protection inside the GIS LV compartment or we should place it in separate independent panels?	Protection and control shall be as per 33kv GIS clause 29 requirements, Issued GIS BOQ and Clarification no. 2, item no.33

No	Bidder Query/Comment	KPLC Response
12	<p>GIS Building or SWG/ Control Building Switchgear room that can accommodate 15nos. indoor MV GIS Switchgear/ switchboard plus a space that would accommodate 5 more GIS switchgear in the future.</p> <p>At the drawing received with Amendment 1, proposed 33/11kV GIS building sketch, there is one GIS room with 2 floor height, and there is no SWG room which shall accommodate 15nos of indoor MV GIS switchgear/ switchboards, as specified in the item 40.4.</p> <p>Please check and confirm what is valid: Requirement from 40.4 or GIS Building drawing.</p>	<p>GIS switch gear room shall be as specified in Clause 29.13. It shall have enough space to accommodate 15nos. indoor MV GIS Switchgear plus a space that would accommodate 5 more GIS switchgears in future. Minimum area 275m²</p> <p>The building shape required shall be as per Sketch given in amendment no.1</p> <p>Building works and materials technical specifications shall meet requirements of clause 40 and its sub clauses.</p>
13	<p>The metering class of PTs and CTs have been given as 0.5 and 0.2 in different sections. Pleas clarify.</p>	<p>All Metering cores' class for both CTs and PTs shall be 0.2</p>
14	<p>ST001- Page 58 – complete tower mean – Please specify the base extension and Leg extension to be used.</p>	<p>Detailed tower design is in the contractor's scope subject to employer's approval</p>
15	<p>Please provide the final complete price schedule for both lots after revision made in amendment no.01</p>	<p>Use price schedules as provided in the issued bidding document and amendments</p>
16	<p>ST 001 – Page 74 – LOT 2 – Please clarify the type number of pole</p>	<p>Refer to clarification no.1 item no.5</p>
17	<p>ST 003 - Crane – Please specify the type and specifications. This is not available in the bidding document.</p>	<p>Refer to clarification no.1, item no.171</p>
18	<p>As per amendment no.01, For LOT 1 - Materials for transfer and or relocation of 33/11KV existing Overhead line fittings and conductor has been amended as Supply of 33kV 300mm² 3Core Aluminium cable complete with termination kits, surge arresters, expulsion fuses and fittings for 1 Km of 33kV & 3 Km of 11kV overhead lines crossing 132kV double circuit line corridor. Query- please provide the specifications and GTP for 33kV Surge arresters.</p>	<p>Provided in appendix no.1 of amendment no.3</p>

No	Bidder Query/Comment	KPLC Response
19	<p>For Non-submarine Cables</p> <p>In 38.1 General of Cables Spec, No joints shall be allowed. Does it mean we cannot have any cutting length and just keep it as a whole cable? Considering transportation conditions, we cannot afford the weight of a whole cable with 1.5km (it is estimated that its weight will be more than 20 tons), let alone the 4km one. Please confirm if cutting lengths or joints are acceptable.</p>	<p>Optimal drum length shall be used for cable transportation and no joints shall be allowed in any drum length as per 38.1.</p> <p>Any cable Jointing at site during installation shall be as specified in the issued bidding document, amendments and Clarifications.</p>
20	<p>In Cables Spec, it required swelling powder to block moisture in conductor, considering our actual equipment status, we suggest applying swelling water-blocking tape (which contains water blocking powder) instead of swelling powder for the conductor.</p>	<p>This shall be as specified in the issued bidding document, clarifications and amendments.</p>
21	<p>In Cables Spec, for A water tight copper or aluminium seal, we recommend Aluminium-plastic composite tape.</p> <p>For A layer of earthing screen of stranded aluminium or copper, we can use Copper Wire Wrapping or Aluminium Wire Screen, but we need to know SCC (short-circuit current) or the cross-section of screen, please help us to confirm.</p> <p>38.3 Cable The conductor shall be covered with: • An extruded semi-conducting layer • A layer of dry vulcanised cross-linked polyethylene (XLPE) insulation • An extruded strippable semi-conducting layer • A water tight copper or aluminium seal • A layer of swelling tape to prevent axial ingress of water along the screen • A layer of earthing screen of stranded aluminium or copper • An outer LDPE (low density polyethylene) sheath for water tightness and mechanical protection.</p>	<p>This shall be as specified in the issued bidding document and amendments no. 1</p> <p>Short circuit current should be determined by manufacturer in cable design as per IEC 60840 and other accepted international standards.</p>
22	<p>According to Cables Spec, no detailed armouring method provided, thus the armor structure is not clear, which needs customer's confirmation.</p> <p>38.6 Armour All cables shall be armoured according to approved manner</p>	<p>Armour shall be round wires of galvanized steel banded with galvanized steel tape. Water blocking tape shall be applied between the armour and over sheath.</p>

No	Bidder Query/Comment	KPLC Response
23	<p>Submarine Cable: According to the technical file provided by the customer, we saw descriptions ad below</p> <p>4.4.9 Over sheath</p> <p>4.4.9.1 There shall be an extruded over sheath of suitable material for intended service conditions described in the tender document.</p> <p>4.4.9.2 The cable shall be clearly and permanently embossed with the following information throughout the length of the over sheath.</p> <p>i) 33000 VOLTS XLPE SUBMARINE CABLE PROPERTY OF KPLC; ii) Name of manufacturer; iii) Year of manufacture; iv) The number of cores, type and nominal area of conductors. v) Size of the cable.</p> <p>However, for now we don't have such technique as Outer-Sheath Extruding and Sheath Marking/Printing after Steel Wire Armouring for submarine cable production process. We suggest applying asphalt and PP yarn as over sheath instead.</p>	<p>This shall be as specified in the bidding issued document and amendment</p>
24	<p>As the picture shows:</p> <p>4.3.3 The cables shall have following at least insulation and protection layers; Black Outer corrosion protection sheath, galvanized steel tape armour, Water blocking tape, steel wire armour, LDPE separation sheath, Lead Alloy E sheath, semi-conductor water blocking tape, Extrude semi-conductive XLPE (strippable) and XLPE insulation.</p> <p>4.4.3 A metallic screen shall be applied around each core. The screen shall consist of helically applied overlapped <u>copper tape</u>.</p> <p>Descriptions for Metallic Screen materials in 2 circled places are different, please verify it. Besides, in order to provide better water-blocking performance and carrying capacity, we advise Lead Sheath.</p>	<p>Both Copper wire screen and Lead alloy Earth sheath are required as per amendment no.1</p>
25	<p>As the picture provided submarine cable contains 48-Core Optical Fibres, please provide us detailed information of parameters.</p>	<p>Refer to issued bidding document Clause 26 and 23, Amendment no.1 and Clarification no. 2</p>
26	<p>Spare Towers – Page No 282- Vol. II</p> <p>Three sets of spare suspension tower shall be provided, and one set each for section and angle towers used in the line. Spare Cross arm bracings shall also be provided, sufficient for five (2) standard towers.</p> <p>Query – This is not in line with Volume I of Page No 74 in Price Schedule</p>	<p>This shall be as per price schedule 1 on mandatory spares</p>
27	<p>Volume II – Page 427: 36.2.5 Composite Polymeric Insulators - Query - Please specify whether Insulator required are Low or Medium or Extreme.</p>	<p>The insulators are for extreme pollution environment</p>

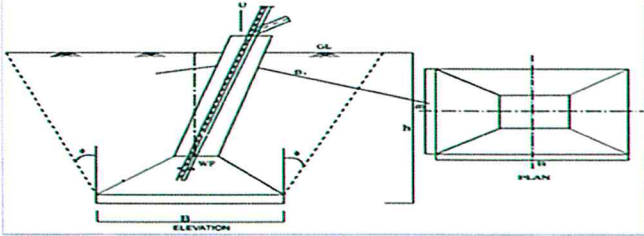
No	Bidder Query/Comment	KPLC Response
28	Volume.1: ST -001 – ST 006 - Spares for Transmission Line. Query – Please specify type of the Leg Extn and Body Extn required to be supplied.	This is in contractor's design scope depending on type of tower to be supplied.
29	As per the Amendment No 2, Clause 4. Experience has been modified as successfully completed in any two (2) year for Lot 1 and Lot 2 for S/s and TL portion. Please clarify whether above 132 Kv Class Projects will be considered like 220 Kv, 400 Kv etc for Lot 1 and Lot 2 and the any two years means from since when.	Refer to clarification no.1 item no.41 Any Two years in the period between 1 st January, 2008 to 2018.
30	Clarification No 1 dated 5th June 2018, item no 146, clause 19.5: drawings, page no 23 of 53. It is mentioned that the layout drawing for Mbaraki substation is provided in the amendment, whereas the layout drawings is missing in the received attachment. Please provide us the same for estimation works.	Layout for proposed Mbaraki 132/33kv substation is provided in the issued Bidding
31	Clarification No 1 item no 146, clause 19.5: drawings, page no 23 of 53. In the single line diagram provided in the Vol II (Drawing Dwn no 01 and 02) equipment parameters is not indicated/mentioned for the proposed bays. Please provide the revised tender drawings for the same.	There is no revised drawing Dwn. no. 01 and 02. All Equipment parameters and technical specifications are provided in the issued bidding document, clarifications and amendments.
32	General - Kipevu substation - Please confirm whether Perimeter and Road lighting to be considered. If yes Please mention the area (or) dimension to be considered since Tender layout for the existing substation is not available with the tender documents	This is shall be a component of MBA-416-Relocation of existing access road and Reinstatement of Chain link to cover the extended 132kv line bay. Extended chain link shall be approximately 250M and similar to existing one.
33	Therefore it is presumed that for all outdoor equipment in Lot -1, the short circuit current rating is 40kA/1sec. Please confirm our understanding.	Use short circuit current of 40KA/3 Secs

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34	<p>Therefore it is presumed that for all outdoor equipment in Lot -2, the short circuit current rating is 40kA/3sec.</p> <p>Please confirm our understanding.</p>	<p>Use short circuit current of 40KA/3 Secs. Refer to clarification no.1</p>
35	<p>Clarification No.1. No.90. We understand Import License for all Plant and Equipment will be taken by the Employer. Please confirm. Nothing is specified in the bidding document.</p> <p>We understand that since Employer will be the Consignee for all imported Plant & Equipment, Import License shall be in the name of Employer only.</p> <p>Please clarify.</p>	<p>This shall be as specified in the issued bidding document and clarification no.1&2</p>
36	<p>Clarification No. 1 Sr No. 31, 73, 75, 176 & 177.</p> <p>Taxes and Duties shall be considered in quoted price. As per clarification no. 1 Sr. No. 31 exemption of taxes and duties to be considered as per the bidding document, whereas per Sr. No. 73, 75, 176 & 177 Taxes and Duties shall be considered in the quoted price. We presume that, the taxes and duties shall be considered by Bidder in their price. Please confirm.</p>	<p>Clarification no.1 Sr. 31 doesnot provide for any exemption of taxes.</p> <p>This shall be as per issued clarification no.1 Sr. no. 73</p>
37	<p>Clarification No.2 Sr No. 71 Manufacturer's conformity and warrant shall be submit together with bid document for evaluation as per Section II-Bid Data Sheet ITBII.1 (i) of the issued bidding document "As per the Description no format is provided in the bidding document for warranty. Please provide the format for warranty letter."</p>	<p>There is no set format by employer for manufacturer's conformity and warranty.</p>

No	Bidder Query/Comment	KPLC Response												
38	<p>As per Tender Specification Volume II, Part 2, Section VII, Clause 10.2.3, The following loads shall be applied in the design of towers,</p> <p>(a) Wind Loads</p> <p>Also as per Tender Specification Volume II, Part 2, Section VII, Clause 10.2.4, The following factors of safety for tower structures shall be applied in the design -</p> <p>(i) 2.5 for normal loading condition.</p> <p>(ii) 1.25 for broken-wire condition.</p> <p>As per above mentioned data we are applying the following wind pressure for tower design -</p> <table border="1" data-bbox="268 880 962 1115"> <thead> <tr> <th>Wind load description</th> <th>Normal Condition</th> <th>Broken wire condition</th> </tr> </thead> <tbody> <tr> <td>on power conductors and overhead earthwire (on the projected area of conductor or wire)</td> <td>=385N/m² * 2.5 =962.5N/m²</td> <td>=385N/m² * 1.25 =481.25N/m²</td> </tr> <tr> <td>On tower structures (on the projected area of structure members)</td> <td>=690N/m² * 2.5 =1725N/m²</td> <td>=385N/m² * 1.25 =481.25N/m²</td> </tr> <tr> <td>On insulator set</td> <td>=385N/m² * 2.5 =962.5N/m²</td> <td>=385N/m² * 1.25 =481.25N/m²</td> </tr> </tbody> </table> <p>Request you to please confirm "Clarification -2, No. 89" Amendment on monopole design general arrangement "</p> <p>The Minimum clearance of live parts to monopole for 33kv D/C steel monopoles are not provided. Request you to please furnish above data.</p>	Wind load description	Normal Condition	Broken wire condition	on power conductors and overhead earthwire (on the projected area of conductor or wire)	=385N/m ² * 2.5 =962.5N/m ²	=385N/m ² * 1.25 =481.25N/m ²	On tower structures (on the projected area of structure members)	=690N/m ² * 2.5 =1725N/m ²	=385N/m ² * 1.25 =481.25N/m ²	On insulator set	=385N/m ² * 2.5 =962.5N/m ²	=385N/m ² * 1.25 =481.25N/m ²	<p>The specific site meteorological wind speed/load for 50 years design life with appropriate safety factor shall determine the actual wind loads to be applied for line and tower design.</p> <p>The quoted clarification no.2 item no.89 is not correct.</p> <p>However refer to clause 28.2 item no. (11a). of issued bidding document on minimum Phase to Earth clearance for 33kv system voltage.</p>
Wind load description	Normal Condition	Broken wire condition												
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39	<p>As per tender Specification Volume II, Part 2, Section VII, APPENDIX 9.A.2, Page 45, The minimum electrical clearances of live parts to earthed structures for the project is provided</p> <p>As per Tender Specification Volume II, Part 2, Section VII, Clause 24.10, APPENDIX 9.A.2, The minimum electrical clearances of live parts to earthed monopole structure is provided:</p> <p>Request you to please clarify which set of clearance values need to be considered for 132kV tower and monopole designs.</p>	<p>The clearances shall apply as per the Lot provided for.</p> <p>Also refer to clarification no.1, item no. 141: 1530mm shall be considered as minimum clearance of live part to earthed monopole under 20degree swing of suspension insulator or jumper conductor</p>												

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40	<p>Clarification -2 , No. 93" Insulators "As per Clarification.2, KPLC response 93, The particulars technical specifications for pin type 33kv composite insulators is provided in the amendment no.1.</p> <p>Request you to please furnish the post insulator data required for 33kV steel monopoles.</p>	<p>Post insulator specification for 33kv system Voltage is provided in appendix no.1 of amendment no.3</p>
41	<p>Clarification -2 "Monopoles "As Amendment no.1, Monopoles shall have polygonal cross section of 8 sides, continuously tapered with longitudinal automatic arc welding as per AWS D.1. We are designing monopole with 12 sides as it is economical in comparison to 8 sided monopole. Request you to please confirm."</p>	<p>This shall be as specified in the issued clarification no.1 and amendment no.1</p>
42	<p>"Clarification -1No. 35" Line Angle points "In the Amendment No. 1 the updated angle- points list is provided.</p> <p>With reference to revised coordinates received in Amendment No.1, we have noted that deviation angle at AP5 (126deg), AP11 (88.5 deg.), AP12 (109deg) and AP24 (78.5deg)are exceeding deviation limit furnished in Tender Specification Volume II, Part 2, Section VII, Clause 25.1 for each monopole.</p> <p>Please clarify whether route will be revised considering deviation limit as per specification or monopole (HS) to be designed considering deviation angle based on actual route coordinates."</p>	<p>The different types of towers design given cover angle variation from 0 to 90 degree.</p> <p>With adequate understanding of transmission line design, all possible angle variations are covered.</p>
43	<p>"Clarification -1No. 35" Line Angle points "In the Amendment No. 1 the updated angle- points list is provided.</p> <p>With reference to revised coordinates received in Amendment No.1, we have noted that the route length arrived is 5.48km. But as per scope of work total line length is mentioned 6.5 km.</p> <p>There is a significant difference of 1.02km in route length. So Kindly clarify whether the angle point coordinates will be revised as per price schedule route length."</p>	<p>The route survey angle points provided are preliminary and shall not be revised.</p> <p>It is in contractor's scope to carry out detailed route design, hence the actual length of the</p>

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	<p>"Clarification -1No. 35" Line Angle points "In the Amendment No. 1 the updated angle- points list is provided.</p> <p>With reference to revised coordinates received in Amendment No.1, we have noted that the route length arrived is 80.67km. But as per scope of work total line length is mentioned 85 km.</p> <p>There is a significant difference of 4.33km in route length. So Kindly clarify whether the angle point coordinates will be revised as per price schedule route length."</p>	<p>line shall be determined by the contractor</p> <p>The estimated line length (6.5 and 85Km) is for bidding purpose only</p>																																
44	<p>Clarification No. 1. Sr. No.7. (1) We understand that the Contractor shall be entitled for suitable Time and Cost adjustment, if the Effective Date is not established within 60 days of the Contract signing, due to reasons non attributable to the Contractor. Please confirm.</p> <p>We understand 100% Site shall be handed over by the Employer to the Contractor on / before the Effective Date. Please confirm.</p>	<p>This shall be as per issued bidding document and clarifications</p>																																
45	<p>Clarification 2, Item no.88, We understand that the material of tower shall be high tensile steel grade. And we believe that all the world-wide equivalent material should be considered qualify.</p> <table border="1" data-bbox="272 1384 943 1563"> <thead> <tr> <th>EU EN</th> <th>USA</th> <th>Germany DIN, WNr</th> <th>Japan JIS</th> <th>France AFNOR</th> <th>England BS</th> <th>Canada HG</th> <th>European EN</th> <th>Italy UNI</th> <th>Belgium NEN</th> <th>Spain UNE</th> <th>China GB</th> <th>Sweden SS</th> <th>Inter ISO</th> <th>Portugal NP</th> <th>India IS</th> </tr> </thead> <tbody> <tr> <td>S355JR (1.0045)</td> <td>A572 A572Gr.A SSSGrade50</td> <td>S235</td> <td>SM490 SS490</td> <td>E36-2</td> <td>S93</td> <td>350W 350WT</td> <td>Fe510B</td> <td>Fe510B</td> <td>AE355B</td> <td>AE355B</td> <td>Q345B Q345C</td> <td>2132-01</td> <td>E355C Fe510B</td> <td>FE510-B</td> <td>IS961</td> </tr> </tbody> </table> <p>Kindly confirm</p>	EU EN	USA	Germany DIN, WNr	Japan JIS	France AFNOR	England BS	Canada HG	European EN	Italy UNI	Belgium NEN	Spain UNE	China GB	Sweden SS	Inter ISO	Portugal NP	India IS	S355JR (1.0045)	A572 A572Gr.A SSSGrade50	S235	SM490 SS490	E36-2	S93	350W 350WT	Fe510B	Fe510B	AE355B	AE355B	Q345B Q345C	2132-01	E355C Fe510B	FE510-B	IS961	<p>This shall be as per issued bidding document and clarification no.1&2</p>
EU EN	USA	Germany DIN, WNr	Japan JIS	France AFNOR	England BS	Canada HG	European EN	Italy UNI	Belgium NEN	Spain UNE	China GB	Sweden SS	Inter ISO	Portugal NP	India IS																			
S355JR (1.0045)	A572 A572Gr.A SSSGrade50	S235	SM490 SS490	E36-2	S93	350W 350WT	Fe510B	Fe510B	AE355B	AE355B	Q345B Q345C	2132-01	E355C Fe510B	FE510-B	IS961																			

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46	<p>According to Clarification No.1 Item 73, Item 74 and BSD 14.7; 1. We understand that the Import Duty and Taxes will be paid by contractor and reimbursed by employer based on actual payment made by contractor to KRA.</p> <p>2. The Import Duty and Taxes quoted in price schedule No.1 will be considered for evaluation.</p> <p>Our question is: If the bidder quotes very less amount in price schedule No.1 (10% of actual Import Duty and Taxes), it will be not fair for other bidder who quotes according to KRA's tax rate.</p> <p>We suggest that, Employer will pay contractor the same amount as they quoted in price schedule No.1 and the same figure will be considered for evaluation; otherwise Employer will reimburse contractor as actual payment made, but the figure quoted in price schedule No.1 will not be considered for evaluation.</p> <p>Kindly consider the proposal, and confirm.</p>	<p>The rates of duties, taxes, and other levies payable by the Contractor under clause 14.7 of BDS shall be the same as those authorised by KRA, as of 28 days prior to the deadline for submission of bids.</p>
47	<p>Volume II, Part 2, Section VII, Clause 11 on Foundations</p> <p>"As per Tender Specification Volume II, Part 2, Section VII, Clause 26.1, It is given that concrete pad and chimney type foundations will be applied to most of the towers. We would propose to use pyramid type foundation without undercut. The drawing of which is given below –</p>  <p>Request kindly confirm</p>	<p>Foundation designs already given as per issued bidding document, clarifications and amendments shall apply.</p> <p>Design of tower foundation is in contractor's scope considering given international standards and good engineering practice, subject to employer's approval</p>

No	Bidder Query/Comment	KPLC Response
48	<p>"Clarification -1No. 35" Line Angle points "In the Amendment No. 1 the updated angle- points list is provided. With reference to revised coordinates received in Amendment No.1, we have noted that deviation angle at NB11 (84deg) is exceeding deviation limit furnished in Tender Specification Volume II, Part 2, Section VII, Clause 10.1 for tower.</p> <p>Please clarify whether route will be revised considering deviation limit as per specification or tower (HS) to be designed considering deviation angle based on actual route coordinates."</p>	<p>The different types of towers given cover angle variation from 0 to 90 degree. With adequate understanding of transmission line design , all possible angle variations are covered</p>
49	<p>You are kindly requested to extend One (1) month of the deadline for bid submission, due to the changes of line route and specification of material and equipment under clarification No.1 and Addendum No.1.</p>	<p>Closing/opening of the tender shall be on 9th July, 2018 as per issued extension clarification.</p>
50	<p>Kindly specify the 132kV current transformer Ratio for all four (4) substations under Lot1 & Lot2, Technical data is different from Addendum No.1 and Original bidding document,</p> <p>For Addendum No.1, Four (4) different Type of CT was listed, but not match with the requirement of Bidding document.</p> <p>For Class X core, $V_k \geq 350$, $I_k \geq 8\text{mA}$ is required under clause 16.5.4 on page 116, but $V_k=350$, $I_k \leq 30\text{mA}$ is required under Addendum No.1. Kindly Clarify.</p> <p>Amendment no. 1 specification of 132 kV CT Current Transformer "As per amendment no. 1 specifications for 132kV CT, CT ratios provided in the specifications are contradictory with the SLD provided in the clarification No.1.</p> <p>Please do confirm the CT ratios to be considered are of specifications or else of SLD."</p>	<p>132kv CT ratio for Lot 1 and 2 are Provided in appendix 1 of amendment no.3</p> <p>SLD is a sketch for guidance use the CT ratios provided in the bidding document and amendment.</p>

No	Bidder Query/Comment	KPLC Response
51	<p>LOT-1, Price Schedule 1, ST-007, 132kV circuit breaker, 1 No. kindly confirm that Single Pole or Three Pole operation Type was required, and the quantity should be 1 set. Similar for LOT-2, ST-002,</p>	<p>Spares for the 132kv Breakers are single poles. The required of ST-001 and ST-007 is one(1) set each i.e. 3 single pole breakers for ST-001 and ST-007</p>
52	<p>LoT-1, Price Schedule 1, ST-012, Auxiliary relays of matching type to ones used in offered equipment, 3 each. Kindly confirm which equipment is it for.</p> <p>Similar for LOT-2, ST-006, 1 lot.</p> <p>LOT-1, Price Schedule 1, ST-018, Assorted control contactors of matching type to ones used in offered equipment, 8 sets. Kindly confirm which equipment is it for. Similar for LOT-2, ST-012.</p> <p>LOT-1, Price Schedule 1, ST-023, Input/output cards, 2 No. Kindly confirm which equipment is it for.</p> <p>LOT-2, Price Schedule 1, ST-015, Feeder protection unit, 2 No. Our understanding is 1 for Distance protection and 1 for Differential protection. Kindly confirm.</p> <p>LOT-2, Price Schedule 1, ST-032, MTS2000, 1 No. Kindly confirm it is a Motorola Radio you required.</p>	<p>The equipment offered with control and protection.</p> <p>Lot 2, item ST-006 1lot means 3 each for equipment offered with control and protection</p> <p>The equipment offered with control and protection.</p> <p>This is for SCADA and Telecommunication equipment</p> <p>One distance protection relay and one line differential relay.</p> <p>This is had held test set for fibre optic cable testing</p>
53	<p>According to ITB 14.7, "for foreign supplier/contractor for schedule 1..... Import Duties and Taxes will be reimbursed on actual payments made by the Contractors on behalf of the Employer', Kindly confirm the period for reimbursing these expenses on Import duties and taxes.</p>	<p>This shall be as per issued bidding document and clarification no.1, item no. 144</p>
54	<p>For the price schedule, the unit price for miscellaneous work should be listed, i.e. Rock excavation, import backfilling soil, addition earthing etc. Since all these are uncertain items and bidder do not know the exact quantity during tender stage, the quantity should be measured during execution period and be paid accordingly.</p>	<p>This shall be as per issued bidding document and clarifications</p>

No	Bidder Query/Comment	KPLC Response
55	Under E-Procurement System, the column of Bank Area Code, there is no code for Foreign Banks, as we are a foreign firm, we would like to propose the foreign bank, please advise how to do.	Provide the name of the bank issuing the bid bond
	Under E-Procurement System, the column of Bank Area Code, is it for Bidders bank or the bank providing the bid security?	Give the bid bond reference number
56	Is it possible to revise the documentation after submission but before closure in the E-procurement system?	Document can be withdrawing for revision, but should be re-submit before closure date
57	For experience of LOT 1, we request that 110KV be considered also as meeting the qualification of 132KV, as this is the similar voltage level in other country without 132KV level.	Refer to clarification no.1 item no.41
58	<p>For the price schedule of Transmission Line work, you are kindly requested to break-down all types of material with quantity for schedule no. 1, i.e. the quantity of Tower Type-S, Type-L, Type-M, Type-H, Type-HS, Type-T, and conductor, OPGW, Insulator etc. Unit price for different material is required, since it is the reference for any variation or changes of scope of work.</p> <p>For the price schedule of Transmission Line work, you are kindly requested to break-down all types of work with quantity for schedule no. 4, i.e. the quantity of Foundation & Erection for Tower Type-S, Type-L, Type-M, Type-H, Type-HS, Type-T, and the quantity of Erection for conductor, OPGW, Insulator, and the quantity of Survey and Investigation etc. Unit price for all types of work is required, since it is the reference for any variation or changes of scope of work.</p>	<p>This shall be as per issued bidding document Vol. 1</p> <p>It is in contractor's design scope to break down the required materials given in lots.</p>
59	In the Form EXP - 4.2(a) (cont.), what should be filled under item 5? Construction rate for key activities.	Specific construction and contract management experience as per issued bidding document

No	Bidder Query/Comment	KPLC Response
60	<p>The requirement under BDS-ITB 11.1 (I) as below:</p> <p>(b) Details of the supply contracts:</p> <p>i) The Client's name, address and contact person as well as its location.</p> <p>ii) Copies of signed contracts, award letters, and Purchase Orders indicating quantity supplied under the contract and the contract amount</p> <p>Kindly clarify, how many contracts, award letters and Purchase Orders should be provided.</p> <p>Our understanding is only to provide one documentation among signed contracts, award letters, and purchase orders, will be fulfil the requirements, is it correct?</p>	<p>Submit as many documents as possible that will meet the requirements of the issued document.</p>
61	<p>Existing bus differential protection (132/33kv) is HID coupled with F650. The existing CTs ratio is 5A, whereas the required CT ratio for the new bay is 1A, hence the existing bus bar differential protection will not work properly. Kindly clarify</p>	<p>CT's Secondary ratio shall be 1A as per issued tender document and amendments.</p>
62	<p>According to Price Schedule 1, The Total Sum is DDP+Duty+VAT, but DDP is Duty and VAT included, It not make sense to add them again to the Total Sum.</p> <p>Kindly Clarify that the Duty and VAT can be filled with Zero "0", and will not be considered for Total Sum.</p>	<p>This shall be as per issued bidding document and clarifications.</p>
63	<p>ITB 11.1 We are requesting you cancel the audited financial statement requirement for the manufacturers.</p>	<p>The query is invalid because the clause does not require manufacturer's audited financial statements</p>
64	<p>VOL II-Works requirements / part 18.1 / page 221.</p> <p>Please provide the missing Appendix 1. A-1. 2. 3. 4</p>	<p>Refer to clarification no.1 and amendment no.1</p>
65	<p>Climatic Condition: Altitude above sea level. Please confirm if we should consider 500 m.a.s.l for the 132 line transmission (as indicated on Vol II- /part 18.3.2 /page 222) & 2200 m.a.s.l for the substation Mbaraki.</p>	<p>Refer to clarification no.1, item no. 43 and amendment no.2</p>

No	Bidder Query/Comment	KPLC Response
66	<p>Please indicate the correct rated current & short circuit value for each 132Kv required equipment.</p> <p>VOL II-Works requirements / part 28.2 / page 305.</p> <p>For 33 Kv level voltage it is required 25KA/3s; 1250° for busbar & 800A for isolating switch; circuit breaker; current & voltage transformer, & surge arrester.</p> <p>The above value are not in accordance with the value given VOL II-Works requirements / part 29.4.1 table 1 / page 313 in which is indicated a short circuit value of 31.5KA/3s-2500 A busbar rating & 1600A for feeder and transformer bay.</p> <p>Please indicate the correct short circuit value to consider for 33Kv level & the rating for 33 KV incomer GIS panel/outgoing panel /auxiliary transformer panel & bus section panel.</p>	<p>Refer to item no.33 and 34 in this clarification</p> <p>The rating of 33kv indoor GIS equipment shall be as specified in the issued bidding document and clarifications no.1 and 2</p> <p>Refer to clarification no.1 item no. 46 for short circuit current rating GIS equipment.</p> <p>Short circuit current for 33kv Line outdoor equipment shall be 31.5/3Sec</p>
67	<p>VOL II-Works requirements / part 29.6.2. Please provide the missing SLD that we should follow for the design of the 33 KV GIS switchgear as per tender indication.</p>	<p>Refer to issued Bidding document</p>
68	<p>VOL II-Works requirements / part 29.8.4.2.3. Please specify the correct 33 KV current transformer ratio (Primary & secondary) rating; the core number & burden for: -Incomer panel, -Bus section panel, -Outgoing panel. -Outgoing Auxiliary transformer panel</p>	<p>Refer to issued bidding document on 33KV Indoor GIS</p> <p>Refer to clarification no.1 for Auxiliary transformer panel</p>
69	<p>VOL II-Works requirements / part 29.8.5.5. Please could you confirm that the 33 KV voltage transformer will have two core as per the following data:</p> <p>Otherwise please specify the 33 KV VT requirement</p>	<p>Refer to clause 29.8.5.5. Table 8 of issued bidding document Vol. II</p>
70	<p>VOL II-Works requirements / part 29.11. We can understand that the LCC will contain only the BCU (without the protection relay), and each 33 KV GIS bay shall have an independent LCC panel except for the outgoing. Does the LCC refer also to the line control panel , please confirm</p>	<p>Refer to issued bidding document on 33KV indoor GIS and clarification no.2 item no.33</p>

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71	You are kindly requested to extend One (1) month of the deadline for bid submission, due to the changes of line route and specification of material and equipment under clarification No.1 and Addendum No.1.	Closing/opening of the tender shall be on 9 th July, 2018 as per issued extension clarification.
72	VOL II-Works requirements / part 39.16.1. Please confirm that the distance relay and the two differential relay are both required for the 132kv line bay.	Refer to clarification no. 2 item no.33
73	VOL II-Works requirements / part 39.16.1. Please confirm that for 132 KV line, the auto reclose relay will be integrated together with the backup overcurrent & earth fault protection relay	This shall be as per issued bidding document
74	VOL II-Works requirements / part 39.16.1. Please clarify that for 132 KV line, either the breaker failure will be an independent protection relay or can be integrated on main protection.	Follow as per clarification no.1, amendment no.1
75	VOL II-Works requirements. Please clarify the protection required for 33 KV GIS switchgear (the protection needed for the incomer; bus section , outgoing and auxiliary transformer outgoing)	Follow as per issued bidding document and clarifications 1 and 2
76	Section IV; price schedule, Mbaraki and kipevu 132/33KV substation. VOL II-Works requirements/ 34.1 Mbaraki 2x45MVA 132/33kv Substation The quantities required for the transformer protection & control panel; line protection & control panel as per the tender specification are different from the schedule price. Please recommend the correct schedule price and quantities to consider in our quotation.	This shall be as per issued price schedule no.1 and amendment no.1
77	Section IV; price schedule, Mbaraki and kipevu 132/33KV substation. There is requirement for 132 KV 800mm ² Power cable between cable support structure and terminal tower. Please provide the technical specification of the power cable, the termination kits and the sealing ends.	Refer to clarification no. 1 and amendment no.1

No	Bidder Query/Comment	KPLC Response
78	<p>Section IV; price schedule, Mbaraki and Kipevu 132/33KV substation. There is requirement for 33 KV 630mm² AL feeder cable</p> <p>Please provide the technical specification of the AL feeder cable, the termination kits and the sealing ends.</p>	Refer to clarification no. 1 and amendment no.1
79	<p>Section IV; price schedule, Mbaraki and kipevu 132/33KV substation. There is requirement for 33 KV 630mm² CU incomer cable Please provide the technical specification of the CU incomer cable, the termination kits and the sealing ends.</p>	Refer to clarification no. 1 and amendment no.1
80	<p>Section IV; Price schedule; Factory and acceptance test and training.</p> <p>Please could you confirm the FAT & training for all the requirement as per schedule will as per the following: Duration: 7 days, Number of client person: 4. Otherwise please indicate the duration and the number of Client person participating for each training required. This shall be as per issued bidding document and clarification</p>	This shall be as per issued bidding document and clarifications no.1
81	<p>VOL II-Works requirements"; We ask if we could propose an air insulated switchgear for 33 KV level voltage instead of GIS type requested.</p> <p>The 33 KV Air insulated switchgear will have the same configuration of the GIS with SF6 withdrawable circuit breaker</p>	No. This shall be as specified in the issued bidding document
82	<p>Clarification 1 no. item no. 271-Technical data for Voltage transformer. The Voltage transformer Burdens are not legible. Please clarify</p>	Provided in appendix no.1 of amendment no.3

Yours faithfully,

For: KENYA POWER & LIGHTING COMPANY LIMITED.



DANIEL MUGA

Ag. GENERAL MANAGER, SUPPLY CHAIN

