Our Ref: KE-KETRACO-416094-CW-RFB **27th August 2025**

Notice to all Bidders

RE: CLARIFCATION NO. 3

Contract Title:	**Design, supply, installation and commissioning of the 400/220 kV Kimuka Substation and Associated Transmission Lines**
Contract No.:	**KE-KETRACO-416094-CW-RFB**

In accordance with the Instructions to Bidders ITB 7 [Clarification of Bidding Document, Site Visit, Pre-Bid Meeting], the Employer, Kenya Electricity Transmission Company Ltd. (KETRACO) is providing responses to the clarifications requested by bidders in forty-nine (49) pages with attachments.

SENIOR MANAGER, SUPPLY CHAIN

	Reference	Clarification	Responses
1	Request for Submission Deadline Extension	We, are very interested in this project and are actively preparing the bidding information of Kimuka Project. Kindly review the clarification questions raised in our letter and please consider our request for 45 days extension of the bid submission deadline.	Refer to Addendum 5 for the revised bid submission deadline.
2	Section VII. Employer's Requirements- A - Scope of Supply, 3. Service Conditions Important Note: All main and spare equipment shall be provided for proper operation in four altitude categories (to optimize main equipment/ spare parts and achieve interchangeability at country level), including 1000, 1500, 2000 and 2500 meter above sea level.	In Requirements- B, site conditions, the altitude of area is 1850m. However, in Requirements- A, it is required that all main and spare equipment shall be provided for 2500 meter above sea level. The price of transformer for altitude of 1850m and 2500m are quite different, the latter one is higher. Pls confirm the requirement of altitude for transformer.	Please refer to clarification 2 item 113
3	Section VII. Employer's Requirements- B – Specifications, 2.1.4. Environmental, site conditions Altitude of Area: 1850m		
4		Please confirm any flood happened before in the site area, is it requisite to consider flood in the site area during design.	Please refer to clarification 2 item 129
5	Section VII. Employer's Requirements- A - Scope of Supply, 1.5.1. Scope of Work for OHL Dismantling surplus part of existing lines (and packing and transferring to the Employer's store/specified location as per Employer requirements)	Dismantled part of existing line need to be transferred to the employer's warehouse, please clarify the distance between the site and warehouse.	The place for delivery of dismantled line items will be the warehouse and designated storage area within the new 400/220kV Kimuka substation.

6	Request for Submission Deadline Extension	Request for extension of the deadline Since we haven't received any replies to all our clarifications, some key issues will deeply affect our design, proposal and price. We kindly request your early reply to all our queries and apply for a one month extension of the deadline.	Refer to Addendum 5 for the revised bid submission deadline.
7	Request for Submission Deadline Extension	Considering that the Bid Security process takes much time for the Bank to issue, and also for bidding document preparation, we would like to request to extend the deadline for Bid submission for 30 days.	Refer to Addendum 5 for the revised bid submission deadline.
8	Request for Submission Deadline Extension	we kindly request confirmation on whether KETRACO intends to extend the bid submission deadline, to allow bidders adequate time to factor in the forthcoming clarifications and to ensure a fair and competitive bidding process.	Refer to Addendum 5 for the revised bid submission deadline.
9	Request for Submission Deadline Extension	As maybe you know, we in Iran have had some problem due to recent war, and we are seriously request for extending the tender, consequently we can prepare the documents and can send it to your country.	Refer to Addendum 5 for the revised bid submission deadline.
10	Request for Submission Deadline Extension	we feel that the available balance time seems very tight to prepare competitive & comprehensive offer. Hence, we request you to please extend the tender submission date at least by 4 weeks from 10th July 2025 for the competitive techno-commercial proposal.	Refer to Addendum 5 for the revised bid submission deadline.
11	Request for Submission Deadline Extension	We would like to kindly request an extension of time for the closing of the above tender. We are struggling to get quotes and documents from the suppliers on time, and they have also requested more time. Can you kindly consider the extension please.	Refer to Addendum 5 for the revised bid submission deadline.
12	Request for Submission Deadline Extension	Kindly, We request a six-week. extension for the submission of the above mentioned Project to be at August 21, 2025 instead of July 10, 2025. This extension	Refer to Addendum 5 for the revised bid submission deadline.

		is necessary for us to complete the pre-qualification documents in the best way.	
13	Clause 22.3.3.10. Arcing Horns of Section VII. Employer's Requirements- B – Specifications	As per referred clause 22.3.3.10, it is mentioned that "Any special tests considered necessary to prove the correct setting of arcing fittings shall be carried out at the manufacture's works without extra cost.". Kindly specify the details of required "special test" for the Arcing Horns.	Refer to Addendum 6 item 8.
14	Item No. 8.01 to 8.04 of Schedule 4B_TL of Price Schedule We refer to Item No. 8.01 to 8.04 of schedule 4B_TL of Price Schedule. Accordingly, bidder shall quote for below items: 1) 8.01 - Dismantling of the surplus part of the existing lines, packing and delivery to client's store and all associated works 2) 8.02 - Re-tensioning a part of existing lines and all associated works in order to connect the new lines to the existing ones 3) 8.03 - All necessary activities to connect all the project new transmission lines to the existing ones, including temporary by pass works, eventual connection to the substations 4) 8.04 - Re-location of existing lines in Suswa and Isinya substation so as to ensure both circuits are connected to the 400kV bus bar" However we did not find any detsila of scope of work pertaning to above items in Section	We request you to provide location of the works and detailed scope of work for above price schedule items.	Refer to Section-VII-2A-Scope & General Requirements of tender documents. Section 1-1 Site Location and Section 1.3 Transmission Line Works. Additionally, refer to section 1.5.

	VII. Employer's Requirements- A - Scope of Supply.		
15	Request for Submission Deadline Extension and Site Visit	Follow up request for time extension and site visit	Refer to Addendum 5 for the revised bid submission deadline. With regards to the site visit, the procedure for undertaking a site visit is outlined in clarification no 1 item no. 2.
16	Request for Submission Deadline Extension	Request for time extension We would like to inform that KETRACO's response on above are crucial and post receipt of your response, there's huge quantum of works involved in preparation of our bid which includes detailed engineering completion, seeking proposal from suppliers, liasioning with local parties for their offer for local works etc. In view of above, extension of 8-10 weeks may please be granted from the date of KETRACO's last response to abovementioned queries. This will help us in submitting most competitive techno-commercial bid,	Refer to Addendum 5 for the revised bid submission deadline.
17		The tender documents indicate that Special Experience (a) and Special Experience (b) must pertain to projects with a voltage level above 380kV. However, the highest voltage level currently in use in West Africa is 330kV. We have successfully executed 330kV substation projects in Nigeria. Notably, both 330kV substations in West Africa and 380kV substations in East Africa operate at the same frequency of 50 Hz—a standard shared by both the West African Power Pool (WAPP) and the Eastern Africa Power Pool (EAPP). Kindly whether completed 330kV projects is acceptable in lieu of the 380kV requirement to satisfy the qualification criteria.	Not Accepted. Bidders must follow the tender documents conditions.

18	Price schedule 4B, Item no. 2.0 "Foundation with stub" and Item no. 5.0 "Steel towers"	Total no. of foundations and total no. of towers as per price schedule is not matching. The sum of all mentioned tower foundations is 35, whereas the sum of all mentioned steel towers 14. Request you to kindly correct the quantity of tower foundations mentioned and issue revised price schedule	Refer to item 394 of clarification no.2.
19	Clause 1.1. General Design of Equipment of Section VII. Employer's Requirements- B – Specifications	As per Referred clause, "Type tests shall have been performed by an internationally accredited independent testing laboratory not associated with the manufacturers. Also type tests performed at manufacturer's laboratory and witnessed by accordingly accredited independent third party are acceptable. Accreditation to the testing laboratory/ third party shall be given by an according signatory member of International Laboratory Accreditation Cooperation (ILAC)." We would like to inform you that we are manufacturer of Lattice steel tower and have tower testing facility accredited by "National Accreditation Borad for Testing and Calibration Laboratories(NABL)" In view of above please confirm that type testing of the towers for this project can be performed at our testing facility.	Refer to item 163 of clarification no.2
20	Price Schedule 4B, Item no. 9.01 "Growing 50,000 trees" And Section VII - 2C: ENVIRONMENTAL, SOCIAL, HEALTH AND SAFETY (ESHS) REQUIREMENT,	Number of trees mentioned in the Price schedule is 50,000. Whereas, in Section VII-2C ESHS Requirement; under Climate Change Mitigation, it is mentioned "worth KES 5,000,000 or at least 30,000 trees whichever is less"	1. Refer to the latest revision of Price Schedules in Addendum 6. Also refer to items 13, 14 and Attachment 2 in Addendum 6. 2. Refer to Addendum 6, item 14 and Attachment 2.

	Clause 14. ESMPS FOR THE PROJECT AS DEVELOPED IN THE PROJECT ESIA REPORTS: Climate Change Mitigation, Page No. 42 and Loss of vegetation cover/biodiversity Page No. 45.	Further, in Section VII-2C ESHS Requirement; under Table 2: Construction Phase ESMP for Rabai STATCOM, Loss of vegetation cover /biodiversity, it is mentioned "KETRACO in collaboration with KFS, local Community Forest Associations within Rabai subcounty and Kilifi County government, will implement a tree planting program within identified sections in Kilifi County of 30,000 seedlings" 1. Kindly clarify the No. of trees to be planted? 2. And the locations of tree plantation to be done.	
21	Clause 22.8.1. General Requirements of Section VII. Employer's Requirements- B – Specifications. Page No. 434.	It is mentioned that "Identification and acquisition of the required wayleave trace for construction of the temporary bypasses (Both for the 400kV Suswa-Isinya double circuit (D/C) transmission line and 220kV Line in Line out to 220/66 kV Kimuka substation) shall be the Contractor's responsibility and the cost of which inclusive of any compensation costs to owners of affected land parcels shall be deemed incorporated in the Contract price for the bypass works" We understand that acquisition of ROW for the LILO line and temporary bypass arrangements and its compensation is under KETRACO's scope – Please confirm.	The Employer shall be responsible for the acquisition of ROW for the permanent works. However, as indicated in page 434 of Section VII. Employer's Requirements- B – Specifications, the contractor shall be responsible for identification and acquisition of the required wayleave trace for construction of the temporary bypasses.
22	Price schedule 4B, Item no. 1.6.	Kindly provide the specifications of the Farm gates to be installed.	The specification shall be proposed by the contractor in their bid
23	Price schedule 4B, Item no. 5.40 And Clause 22.4.14. of Section VII. Employer's Requirements- B – Specifications. Page No. 424.	As per Clause 22.4.14. "Where required and to comply with requirements of Authorities certain towers may need to be painted with two coats of approved epoxy resin type paint with red and white strips of widths complying with ICAO Regulations. The life span of the paint system shall be not less than 10 years and the	Refer to Addendum 6 item 9.

		colours shall not fade within this time under strong sun radiation." Please clarify if the complete tower needs to be painted OR Upper part alone i.e., from bottom cross arm to earth wire peak only needs to be painted.	
24	Price schedule 4B, Item nos. 8.01 and 8.05.	As per item no. 8.01 "Dismantling of the surplus part of the existing lines, packing and delivery to client's store and all associated works"And As per item no. 8.05 "ERS towers assembly and dissambly and handover to the employer"In reference to the above, please confirm the name of place, for delivery of material like ERS and dismantled line items.	Refer to item no. 5 of this clarification
25	Clause 22.8.1. General Requirements, of Section VII. Employer's Requirements- B – Specifications. Page No. 434. And Price schedule 1B, Item nos. 7.1 and 7.2.	During the site visit, details of temporary bypass (ERS) of the existing lines to be executed were not explained. We were requested to ask clarification formally. We noted that there are 12 numbers of ERS structures to be supplied and erected and no details of ERS arrangements are provided in the scope. Therefore, request you to provide the details like schematic drawings/arrangements for temporary bypass(ERS) works for the following Temporary bypass works arrangement for the connections of 1. 400kV Loop in (to Kimuka 400/220kV substation), 2. 400kV Loop out (of Kimuka 400/220kV substation) and 3. 220kV Connection (Kimuka 400kV to 220kV substation connection). Also, request to provide the Existing line details and tower schedules in order to facilitate the ERS installation work.	Most of the requisite documents have been provided along with the bid document and addenda therein. Further details such as the as-built drawings for towers shall be provided to the winning bidder as may be applicable.

26	Clause 1.3.4. 400 kV Suswa Line works, Clause 1.3.5. 400 kV Isinya Line works and Clause 1.5. Recovery of Redundant Sections of Transmission Lines of Section VII. Employer's Requirements- A – Scope of Supply. Page No. 22 & 23.	As per the site visit, we understand that, - Between 400kV Isinya and 220kV Isinya, there are 2 no. of towers (one Single circuit tower and One double circuit tower), kindly confirm if only one single circuit tower is to be removed & recovered and also please specify the no. of span and it's length to be removed & recovered. - In Suswa Substation scope, we understand that only conductor, insulator and hardware of slack span at the 220kV termination needs to be removed & recovered, please confirm our understanding and specify the length of this single circuit slack span to be removed & recovered	1. Both towers must be dismantled. The number of spans to be removed are three spans. Gathering necessary data of site is the responsibility of the contractor. 2. The scope of works are clearly identified in Employer's Requirements- A – Scope of Supply clause 1.3.4 for Suswa. The bidder is encouraged to visit site to confirm the length of the slack span
27	Clause 22.4.9.5 (f) of Section VII - Employer's Requirement B - Specification and Item No. 8.1 to 8.5 of Schedule 1B and Item No. 7.80 of Schedule 4B of Price Schedule	We refer to Clause 22.4.9.5 (f) of Section VII - Employer's Requirement B - Specification and Item No. 8.1 to 8.5 of Schedule 1B and Item No. 7.80 of Schedule 4B of Price Schedule. As per Clause 22.4.9.5 (f) of Section VII - Employer's Requirement B - Specification, "No tower or parts of any tower submitted for destruction test shall be used on the contract Works, and steel members shall be destroyed or marked in an approved manner." As per Item No. 8.1 to 8.5 of Schedule 1B and Item No. 7.80 of Schedule 4B of Price Schedule, Tower Type S (Basic Tower + 12m BE + 4m LE) is to be tested to destruction and Tower type T10 (Basic Tower + 12m BE + 4m LE), Tower Type T30 (Basic Tower + 12m BE + 4m LE), Tower Type T60 (Basic Tower + 12m BE + 4m LE), Tower Type T90/Ttrm (Basic Tower + 12m BE + 4m LE) are to be tested to ultimate loading.	Not confirmed. The towers which are to be tested to ultimate loading cannot be used on the contracts works.

		Request you confirm that towers which are to be tested to ultimate loading can be used on this contracts works.	
28	Clause 22.4.9.5 (f) & (g) of Section VII - Employer's Requirement B - Specification and Item No. 8.1 to 8.5 of Schedule 1B and Item No. 7.80 of Schedule 4B of Price Schedule	We refer to Clause 22.4.9.5 (f) of Section VII - Employer's Requirement B - Specification and Item No. 8.1 to 8.5 of Schedule 1B and Item No. 7.80 of Schedule 4B of Price Schedule. As per Clause 22.4.9.5 (f) of Section VII - Employer's Requirement B - Specification, "Tests to destruction shall then be carried out up to 120% loadings in an approved manner on all tower types." However as per Clause 22.4.9.5 (g) of Section VII - Employer's Requirement B - Specification, "Tests to ultimate loading shall be carried out in an approved manner on tension tower types."Further, as per Item No. 8.1 to 8.5 of Schedule 1B and Item No. 7.80 of Schedule 4B of Price Schedule, Tower Type S (Basic Tower + 12m BE + 4m LE) is to be tested to destruction and Tower type T10 (Basic Tower + 12m BE + 4m LE), Tower Type T30 (Basic Tower + 12m BE + 4m LE), Tower Type T60 (Basic Tower + 12m BE + 4m LE), Tower Type T90/Ttrm (Basic Tower + 12m BE + 4m LE) are to be tested to ultimate loading.In view of Above please advise if all type of towers to be tested to destruction or Tower Type S (Basic Tower + 12m BE + 4m LE) is to be tested to destruction and Tower type T10 (Basic Tower + 12m BE + 4m LE), Tower Type T30 (Basic Tower + 12m BE + 4m LE), Tower Type T60 (Basic Tower + 12m BE + 4m LE), Tower Type T90/Ttrm (Basic Tower + 12m BE + 4m LE) are to be tested to ultimate loading.	The nature of tower tests are as specified in the respective price schedules issued in Addendum 6. Tests to destruction shall apply only to suspension towers while tests to ultimate loading shall apply to tension towers.
29	Clause No. 1.5. Recovery of Redundant Sections of Transmission Lines of Section VII. Employer's Requirements- A - Scope of Supply	As per Clause No. 1.5. Recovery of Redundant Sections of Transmission Lines of Section VII. Employer's Requirements- A - Scope of Supply, it is mentioned that " For the section between Tower No. 3 and Tower	Refer to item no. 5 of this clarification

		No.6.....deliver them to KETRACO's appointed storage area." Please specify the exact location of KETRACO's appointed storage area.	
30	Properties of Conductor, Overhead Shield wires and Optic ground wire (OPGW) of Suswa – Isinya 400kV Existing Transmission line	We understand that the properties of the conductor, overhead shield wires, and optical ground wire (OPGW) used in the Suswa–Isinya 400kV existing transmission line are the same as those specified in Section VII – Employer's Requirements, Part B – Specifications, under the following clauses: - Clause 22.1.4: Conductor (i.e. Conductor Type - ACSR Condor; UTS 125.44KN, Diameter - 27.73 and Cross Section Area - 454.8 sqmm) - Clause 22.1.5: Overhead Shield Wires (i.e Type ACS 58.6sqmm; UTS - 71kN; Diameter - 9.78mm and Cross Sectional Area - 58.6sqmm) - Clause 22.2: Optical Ground Wire (OPGW)(i.e Type ITU-T-G655 48 fiber; UTS>93kN and Short circuit capacity - 496kA2s Please confirm if our understanding is correct. In case the properties are different than above mentioned, please advise correct properties of Conductor, Overhead Shield Wires and OPGW of 400kV Suswa–Isinya OHTL.	Confirmed. the specification shall be according to Section-VII-2D-Drawings 34. Kimuka -400-220kV-SS-LILOs-All Drawings, "ACSR conductor "CONDOR" data sheet", "ACS Shield Wire (7X3.26mm) Data Sheet", "OPGW Data Sheet"
31	Properties of Conductor, Overhead Shield wires and Optic ground wire (OPGW) of Existing Transmission line of LILO into Kimuka 220/66kV substation	We understand that the properties of the conductor, overhead shield wires, and optical ground wire (OPGW) used in the Existing Transmission line of LILO into Kimuka 220/66kV substation are the same as those specified in Section VII – Employer's Requirements, Part B – Specifications, under the following clauses:- Clause 22.1.4: Conductor (i.e. Conductor Type - ACSR Condor; UTS 125.44KN, Diameter - 27.73 and Cross Section Area -	Confirmed. The specification shall be according to Section-VII-2D-Drawings 34. Kimuka -400-220kV-SS-LILOs-All Drawings, "ACSR conductor "CONDOR" data sheet", "ACS Shield Wire (7X3.26mm) Data Sheet", "OPGW Data Sheet"

		454.8 sqmm)- Clause 22.1.5: Overhead Shield Wires (i.e Type ACS 58.6sqmm; UTS - 71kN; Diameter - 9.78mm and Cross Sectional Area - 58.6sqmm)- Clause 22.2: Optical Ground Wire (OPGW)(i.e Type ITU-T-G655 48 fiber; UTS>93kN and Short circuit capacity - 496kA2sPlease confirm if our understanding is correct. In case the properties are different than above mentioned, please advise correct properties of Conductor, Overhead Shield Wires and OPGW of 220kV LILO OHTL.	
32	Item No. 8.0 of Schedule 1B of Price Schedule and Item No. 7.80 of Schedule 4B of Price Schedule	We have noted that Tower Type Tests are mentioned under both Item No. 8.0 of Schedule 1B and Item No. 7.80 of Schedule 4B in the Price Schedule. Please clarify in which of the above mentioned item bidder shall quote price for Tower type test. i.e. in item no. 8 of Schedule 1B or under item no. 7.8 of Schedule 4B	The bidder may determine where to include the price for the Tower Type Test at their own discretion. Also refer to the latest price schedules issued in Addendum 6. Nonetheless, payment terms outlined in Appendix 1 of the Contract Agreement (Terms and Procedures of Payment) must be duly considered.
33	Clause 1.1. General Design of Equipment of Section VII. Employer's Requirements- B – Specifications	As per Referred clause, "Type tests shall have been performed by an internationally accredited independent testing laboratory not associated with the manufacturers. Also type tests performed at manufacturer's laboratory and witnessed by accordingly accredited independent third party are acceptable. Accreditation to the testing laboratory/ third party shall be given by an according signatory member of International Laboratory Accreditation Cooperation (ILAC)." We would like to inform you that we are manufacturere of Lattice steel tower and have tower testing facility accredited by "National Accreditation Borad for Testing and Calibration Laboratories(NABL)"	Refer to item 163 of clarification no.2

		In view of above please confirm that type testing performed at our testing laboratory are not required to be witnessed by accordingly accredited independent third party.	
34	Item No. 3.07 of Schedule 1B of Price Schedule	Please refer to the quantity mentioned for Item No. 3.07 "Spacer for triple ACSR 'Condor' Conductor (for jumper loop)" in Schedule 1B of the Price Schedule, which is listed as 84 sets. However, based on our calculations, the quantity should be: 11 (Tension Towers) × 3 (Phases) × 2 (Circuits) × 3 (Spacers per jumper loop) = 198 Nos. Please confirm.	Bidders shall quote as per the provisions in the latest revision of Price Schedule issued in Addendum 6.
35		Bid Security: Would the Employer accept bid securities issued separately by each Consortium member in proportion to their respective scope of work and responsibilities?	Only one Bid Security shall be issued in accordance with ITB 20.8.
36		Payments: In the event the Consortium is awarded the contract, would the Employer allow separate payments to each Consortium member's designated account, or must all payments be made through the Lead Party?	The successful bidder retains the discretion to nominate the party to whom payment shall be made.
37		We are writing to formally request an extension of the submission deadline for the above mentioned tender, due to the ongoing conflict and war situation in Iran. The situation has significantly impacted our operations, including access to essential resources, communication channels, and transportation. These challenges are beyond our control and are directly affecting our ability	Refer to Addendum 5 for the revised bid submission deadline.

		to meet the original deadline without compromising the quality and completeness of our submission. We remain fully committed to participating in this tender and providing a comprehensive and competitive proposal. Therefore, we respectfully request an extension of a one-month, which will enable us to finalize our submission appropriately.	
38	i. Clause no. PCC 13.3.1,13.3.2,13.3.3, 8.2, GCC 27.2, PCC 27.10 ii. ITB 47.1. Performance Security	The Performance Security shall be in the form of Bank Guarantee, shall be issued by a bank licensed and categorized as a 'large bank' by the Central Bank of Kenya as per the reference clause mentioned in the tender document. With respect to the above, we request you to kindly confirm that if we submit Performance Security in the form of Paper Bank Guarantee from India Nationalized Bank without involvement of local bank in Kenya.	The provisions in PCC 13.2.2 shall prevail.
39	General	As per Kenyan Law 3% WHT applicable. Kindly confirm whether the Employer will deduct 3% WHT on the entire contract value (both offshore and onshore) OR 3% WHT will deduct only on onshore portion.	Refer to item 407 of clarification no.2. Bidders are encouraged to conduct their own due diligence and visit the KRA website https://www.kra.go.ke for more information.
40	ITB Clause No. 17.5 (a) and (d)	As per ITB Clause No. 17.5 (a) and (d), all goods and services, whether imported or procured locally by the Contractor for exclusive and direct use in the project, shall be exempt from VAT. Whether the same exemption will be extended to sub contractor also? Please confirm.	Refer to item 407 of clarification no.2. Bidders are encouraged to conduct their own due diligence and visit the KRA website https://www.kra.go.ke for more information.
41	ITB Clause No. 17.5 (a) and (d)	As per ITB Clause No. 17.5 (a) and (d), bidder understand that importer on record is the Employer. Please confirm.	Refer to item 153 of Clarification no. 2.

42	Section-VII-2B-Specification 9.8.4.2 Multiplexer Communications interfaces shall be capable of being made available by means of insertion of appropriate plug-in cards into the multiplexer rack to support the following user interfaces:	Which of the following service interfaces are currently used by ABB at the substation? a. 4-wire to 4-wire voice frequency b. 2-wire to 2-wire voice frequency c. 2-wire E&M signalling d. 4-wire E&M signalling e. 2-wire with ring-down suitable for a remote subscriber telephone connection f. 2-wire loop disconnect signalling g. 4-wire to 4-wire voice frequency with FSK modem and channel fail detection h. Data interface suitable for multirate synchronous/asynchronous data signalling i. 64 kb/s data channel according to ITU-T G.703 j. 2 Mb/s data interface according to ITU-T G.703 k. Alarm collection interface	The interfaces as listed are are currently used . Bidder is required to comply to the requirements as indicated in that clause.
43	Section-VII-2A-Scope & General Requirements 1.1 Site Location	What are the fiber lengths between the new Kimuka and Suswa, and between the new Kimuka and Isinya?	Refer to Section-VII-2A-Scope & General Requirements, Section 1.1 Site Location, Figure 2 for indicative distances between respective substations.
44	Section-VII-2B-Specification 9.Telecommunication System	Is it acceptable to deploy communication equipment from other vendors, provided that seamless interoperability with the existing ABB network is ensured?	Any type of Telecommunication equipment that is proposed must comply with the technical requirements, parameters and standards stipulated in tender documents. Also proposed equipment such as SDH/Radio etc. must be able to communicate with the existing NMS (Network Management System) and other Telecom Management systems in KPLC/KETRACO Transmission network.
45	clause 4.2(a), Specific Experience, the similarity of the contract shall be based on the following:	Requesting that you further amend this clarification to allow for **BOTH GIS and AIS** Substations.	Not acceptable.

	(i) Design, Supply, Installation and Commissioning of a substation with voltage level of 380kV, or above. In clarification No. 1, point No. 1, Ketraco has clarified that only experience in AIS Substations is admissible.		
46	Section-VII-2B-Specification 24.2.3 Control Cables Section-VII-2E-Schedules of Technical Information x) LOW VOLTAGE CABLES 24.2.3 Control Cables x) LOW VOLTAGE CABLES	In the specification of 24.2.3 Control Cables, Section-VII-2B-Specification, it requires Control/ signalling cables shall be of bare copper wires, multi stranded acc. to IEC 60228 Class 5 and with standardised conductivity in accordance with IEC 60228. In the specification of x) LOW VOLTAGE CABLES, Section-VII-2E-Schedules of Technical Information, it requires Stranded/ high conductivity plain annealed copper for Type and material of Control Cable conductor. Please confirm the requirement of Low Voltage Control Cables in Section-VII-2E-Schedules of Technical Information is prior.	Confirmed. Stranded high conductivity plain annealed copper is required. Refer to Addendum 6 item 10.
47	4.2(a) Specific Experience: The similarity of the contract shall be based on the following: i) design, supply, installation and commissioning of a substation with voltage level of 380kV or above	In Clarification No.1, Point No 1, KETRAO has clarified that experience in construction of AIS sub station is only acceptable. As per original tender clause no. 4.2 a) type of sub station was not mentioned, only specify experience in design, supply, installation and commissioning of a sub station was mentioned. In this conncection, we would request that requirement should not only to be limited to AIS since GIS or AIS substation both have same basic bus bar configuration. GIS sub stations has some changes in some product; GIS product is a composite unit of Circuit Breakers,	Not acceptable.

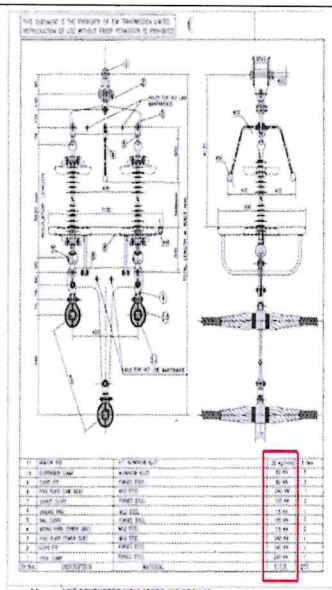
		Disconnector, Current Trnasformer Surge arrestor in compact form. Rest of equipments, construction, design phylosophy is same in both AIS and GIS sub staion. Keeping in view of the above, request you to kindly accept the folllowing clause: **"Experience in design , supply, installation, and commissioing of a substation with voltage level of 380kV or above either in AIS or GIS".**	
48	Section-VII-2E-Schedules of Technical Information b) 400 kV OPEN TERMINAL SWITCHGEAR 1. 400KV Circuit Breaker1.101	Is the additional 20% SF6 gas for all the 400kV circuit breakers in the substation or for one circuit breaker? Please confirm.	Schedules of Technical Information are applicable for each equipment hence this requirement is for each circuit breaker.
49	Section VII. Employer's Requirements- B – Specifications 25.6.5. Earthing system materials	In this part,Lead-sheathed stranded copper conductor shall be used for main grid conductors and down leads connected to them. In TDS,stranded soft drawn annealed copper shall be used,We want to confirm whether stranded soft drawn annealed copper is accepted?	Section-VII-2E-Schedules of Technical Information Part i , 1) Earthing System, 1.2) Ground Grid and Risers amended as Addendum 6 item 7. However, according to Section VII-2B, Specification Part 25.6.5, it states: "Alternatively, when ground conditions are not chemically corrosive (pH value greater than six (6) and less than nine (9)), copper conductors may be used instead of lead-sheathed ones." Therefore, the use of lead-sheathed conductors should be considered depending on the soil conditions.

50	Section VII. Employer's Requirements- E – Schedules of Technical Information i) EARTHING AND LIGHTNING PROTECTION	In TDS ,Design ground fault current is 40kA/3s, Fault clearing time 0.6s Maximum Resistance of Earthing/Grounding System 1Ω , but in Specifications 25.5. Electrical Parameters for Earthing Calculation,Design ground fault current is 40kA/1s and 25kA/3s, and Resistance of Earthing/Grounding System is 0.2Ω,Please confirm which requirements should we follow?	Refer to Addendum 6 item 5. and item 6
51	Section_IV-Price_Schedues_2-7-25 Item 1.19	As per site visit,There is no need for conductors, fittings , connectors and clamps and etc at SUSWA substation Please confirm.	Not confirmed. Refer to Section VII. Employer's Requirements- A - Scope of Supply clause 1.3.4
52	Section_IV-Price_Schedues_2-7-25 Item 1.18	This item is same with Item 2.18.3,Please confirm that Item 1.18 is not necessary.	Not confirmed. Item 1.18 of the latest revision of Price Schedule is related to works for reconnection of 400kV line to 400 kV switchgear of Isinya whereas Item 2.18.3 of the latest revision of Price Schedule is related to connection of transformer 220 kV side to 220kV switchgear. For more details refer to Section-VII-2A- Employer's requirement – Scope of Supply Section 1.2.4 1.2.4. Works at Existing Isinya 400/220 kV Substation. For clarity, follow the latest revision of Price Schedule issued in Addendum 6.
53	Section_IV-Price_Schedues_2-7-25 Item 18.6.7-other items	In the updated Price_Schedues,Item 18.6.7 has been deleted, Please confirm whether all the tools and Equipment as stated in part 2-A clause 20 listed A-J and N-R, of the Employers Requirements shall be provided.Or only items(from18.6.1 to 18.6.6) listed in Price_Schedues shall be provided?	Follow the latest revision of Price Schedule issued in Addendum 6.
54		We intend to participate in the above-referenced tender. In order to complete the necessary documentation and	Refer to Addendum No. 5 for the revised bid submission deadline.

		to provide a thorough price estimation, we respectfully request a 1-month extension to the current submission deadline of 21/08/2025. We believe this additional time will allow us to submit a more accurate and comprehensive proposal. Thank you for your consideration. We look forward to your response.	
55		we feel that the available balance time seems very tight to prepare competitive & comprehensive offer. Hence, we request you to please extend the tender submission date at least by 4 weeks from 10th July 2025 for the competitive techno-commercial proposal.	Refer to Addendum 5 for the revised bid submission deadline.
56		While we are preparing our proposal to participate the tender (KE-KETRACO-416094-CW-RF) and according to published clarification from KETRACO, in which mentioned that the bid security which be issued by those banks or insurances that were be certified by Kenyan authorities, will be acceptable, we are taking the tender bid security from ""Intra Africa Assurance Company Limited"", which is certified in the following authority: https://ppra.go.ke/ Could you please confirm acceptability of "Intra Africa Assurance Company Limited", for issuing the tender bid security	Pursuant to ITB 20.3, insurance companies authorised to transact bid bond can be obtained from Public Procurement Regulatory Authority website https://ppra.go.ke.
57		2.There is a discrepancy regarding insulator string ratings: In the BOQ Schedule_1B, the jumper insulator string is listed with a mechanical strength rating of 120kN, and the suspension insulator string as single/double 210kN. However, in Section-VII-2B, Clause 22.3.3.6, the jumper string rating is specified as 70kN, and the suspension string rating is specified solely as double 210kN. Which document should be considered	Refer to Addendum 6 item 3

		authoritative for the selection of jumper and suspension insulator string types and ratings?	
58		Is all the land within the scope of land acquisition for Kimuka 400kV substation (approximately 475m x 233m) to be leveled (some of which is outside the substation wall)	Refer to item no. 35 of Clarification no.2.
59		2. In String insulator, which strenth details we need to consider, 160kN or 210 kN? Because there is some devaition in technical specification and given datasheet. Please confirm	Refer to Addendum 6 item no. 3
60	Section-VII-2B-Specification page 404	In the Section_IV-Price_Schedues_16-5-24,the Suspension String and Tension String have single and double type. However, the Section-VII-2B-Specification page 405 only shows the double type. Please clarify whether both single and double strings is necessary.	Refer to Addendum 6 item no. 3
61	Section_IV-Price_Schedues_16-5-24	1.In Section-VII-2B-Specification page 404, suspension insulator UTS is 210kN. But in 34.Kimuka-400-220kV-SS-LILOs-All Drawing page 11, it is 2*120kN insulator set. Please clarify which type of suspension string should be used.	Refer to Addendum 6 item no. 3
		2.In the Section_IV-Price_Schedues_16-5-24 and the 34.Kimuka-400-220kV-SS-LILOs-All Drawing page 13, the UTS of jumper insulator is 120kN, but the Section-VII-2B-Specification page 406 shows is 70kN. Please clarify which type of jumper string should be used.	Refer to Addendum 6 item no. 3
62	Section-VII-2B-Specification page 413 Section-VII-2B-Kimuka-400-220kV-SS-LILOs-All Drawing	1. In Section-VII-2B-Specification page 413, the clearance for suspension insulator string is 3600mm on 0-10° swing, and 1200mm on 65 swing. What if the actual swing angle between 10°-65°, the clearance should be?	The values provided for swing angles are the minimum and maximum values allowable. The bidders shall derive the intermediate values with reference to IEC and other relevant standards. The expected minimum value at 35° is 2100mm.
		2. In Section-VII-2B-Kimuka-400-220kV-SS-LILOs-All Drawing shown, the clearance for 0-10° and 65° swing is	Section VII. Employer's Requirements- B – Specifications shall be followed i.e.

		3100 mm and 1100mm.It's different between drawings and specification. Which one should be followed?	3600mm and 1200mm and for 0-10° and 65° swing respectively
63	Section-VII-2B-Specification page 404 The insulator shall be of polymer insulators. The polymer suspension insulators shall be designed, manufactured and tested in accordance with the standards listed. Application of the polymer insulators shall be as per following table: Table: Application of Polymer Suspension Insulator Set **Description** | **Unit** | **400kV** | | Insulator string | - | Suspension | Tension Electromechanical failing load | kN | 210 | 210 Double or Single string | kN | Double | Double Section VII. Employer's Requirements- B – Specifications 405 Polymer suspension insulator set of 70 kN electromechanical failing load with single string shall be used for supporting all jumper conductor all transmission lines. Polymer inverted tension insulator set of 210 kN electromechanical failing load with single string shall be used for supporting gantry conductor all transmission lines. Section_IV-Price_Schedues_16-5-24 3.0 LINE CONDUCTOR INSULATORS AND FITTINGS Supply of Complete Insulator String assembly Sets including insulators and all fittings between tower and Conductor (Suitable for triple ACSR "condor" conductor) including but not limited to all types of clamps, hardware, extension links, armor rods, counterweights, and all connections to Towers 3.01 Single Suspension String (210 KN) Set 12 3.02 Double Suspension String (210 KN) Set 6 3.03 Double Tension String (420 KN) Set 24 3.04 Single Tension String (210 KN) Set 120 3.05 Single Jumper Insulator 120 KN (Pilot Susp String) Set 18 3.06 Spacer damper for triple ACSR 'Condor Conductor Set 300 3.07 Spacer for triple ACSR 'Condor' Conductor (for jumper loop) Set 84 3.08 Vibration dampers Set 168	3. In the Section_IV-Price_Schedues_16-5-24,the Suspension String and Tension String have single and double type. However, the Section-VII-2B-Specification page 405 only shows the double type. Please clarify whether both single and double strings is necessary.	Refer to Addendum 6 item no. 3

64	 3.0 LINE CONDUCTOR INSULATORS AND FITTINGS Supply of Complete insulator String assembly Sets including insulators and all fittings between tower and Conductor (Suitable for triple ACSR "condor" conductor, including but not limited to all types of clamps, hardware, earthing links, armor rods, counterweights, and all connections to Towers 3.01 Single Suspension String (210 kN) Set 12 3.02 Double Suspension String (210 kN) Set 6 3.03 Double Tension String (420 kN) Set 24 3.04 Single Tension String (210 kN) Set 120 3.05 Single Jumper Insulator 120 kN (Pilot Susp String) Set 18 3.06 Spacer damper for triple ACSR "Condor Conductor Set 300 3.07 Spacer for Triple ACSR "Condor Conductor for jumper loop) Set 84 3.08 Vibration dampers Set 168	1.In Section-VII-2B-Specification page 404, suspension insulator UTS is 210kN. But in 34.Kimuka-400-220kV-SS-LILOs-All Drawing page 11, it is 2*120kN insulator set. Please clarify which type of suspension string should be used. 2.In the Section_IV-Price_Schedues_16-5-24 and the 34.Kimuka-400-220kV-SS-LILOs-All Drawing page 13, the UTS of jumper insulator is 120kN, but the Section-VII-2B-Specification page 406 shows is 70kN. Please clarify which type of jumper string should be used.	Refer to Addendum 6 item no. 3
65	Section-VII-2B-Specification page 413 22.4.8. **Clearance** The clearance from live metal to tower members shall be at least as stated in the following table. Table: Minimum Clearance from Tower Members Item / Unit / Clearance Suspension insulator string 0°- 10° swing: mm 3,600 65° swing: mm 1,200 Overhead grounding wire shielding angle: deg 17 Section-VII-2B-Kimuka-400-220kV-SS-LILOs-All Drawing	1.In Section-VII-2B-Specification page 413, the clearance for suspension insulator string is 3600mm on 0-10° swing, and 1200mm on 65 swing. What if the actual swing angle between 10°-65°, the clearance should be? 2.In Section-VII-2B-Kimuka-400-220kV-SS-LILOs-All Drawing shown, the clearance for 0-10° and 65° swing is 3100 mm and 1100mm.It's different between drawings and specification. Which one should be followed?	Refer to item no. 62 of this clarification

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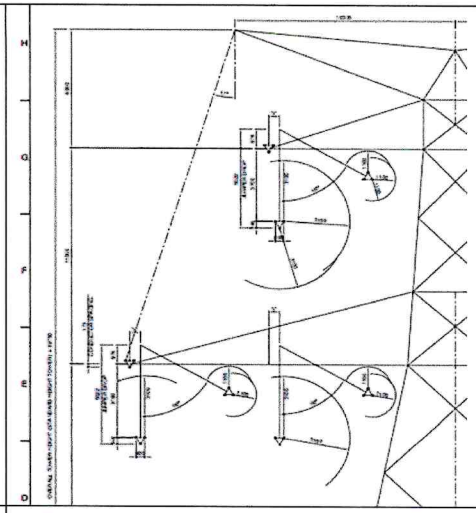
<td>  </td>
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<td>66</td>
<td>Item No. 3.01, to 3.04 of Schedule No. 1B (PLANT, EQUIPMENT AND MANDATORY SPARES SUPPLIED FROM ABROAD) of Section_IV-Price_Schedues

and

Clause 22.3.3.1 of Section VII Employer's requirement - B- Specification</td>
<td>As per price schedule Item No. 3.01, to 3.04 of Schedule No. 1B Bidder shall bid for:
<table>
<tr><td>3.01</td><td>Single Suspension String (210 KN)</td><td></td><td>Set</td><td>12</td></tr>
<tr><td>3.02</td><td>Double Suspension String (210 KN)</td><td></td><td>Set</td><td>6</td></tr>
<tr><td>3.03</td><td>Double Tension String (420 KN)</td><td></td><td>Set</td><td>24</td></tr>
<tr><td>3.04</td><td>Single Tension String (210 KN)</td><td></td><td>Set</td><td>120</td></tr>
</table>
However, as per clause 22.3.3.1 of Section VII - Employer's requirement - B- Specification
Table: Application of Polymer Suspension Insulator Set
<table>
<tr><th>Description</th><th>Unit</th><th>400kV</th><th></th></tr>
<tr><td>Insulator string</td><td>-</td><td>Suspension</td><td>Tension</td></tr>
<tr><td>Electromechanical failing load</td><td>kN</td><td>210</td><td>210</td></tr>
<tr><td>Double or Single string</td><td>kN</td><td>Double</td><td>Double</td></tr>
</table>
We note that in the price schedule quantities for Single & Double Suspension/Tension strings have been</td>
<td>Refer to Addendum 6 item no. 3</td>
</tr>
</table>

		provided. However, the technical specification mentions only double suspension and tension strings. Please advise if single suspension insulator strings and single tension insulator strings are required for this project.	
67	Item No. 3.05 of Schedule No. 1B (PLANT, EQUIPMENT AND MANDATORY SPARES SUPPLIED FROM ABROAD) of Section_IV-Price_Schedues and Clause 22.3.3.1 of Section VII Employer's requirement - B-Specification	As per Item No. 3.05 electromechanical failing load of insulator for pilot suspension string is mentioned as 120kN. However as per Clause 22.3.3.1 of Section VII it is mentioned that, "Polymer suspension insulator set of 70 kN electromechanical failing load with single string shall be used for supporting all jumper conductor all transmission lines." Please advise correct electromechanical failing load for jumper insulator string.	Refer to item no. 64 of this clarification
68	Clause 22.4.1 of Section VII. Employer's Requirements- B – Specifications and as built drawings attached to the tender documents	The new towers shall be of the self-supporting type in Danube configuration to match the existing towers. Since the transmission line of the project is LILO of the existing lines, the contractor is advised to use the same towers data in order to create harmony with the existing line, however this is contractor's responsibility to check the existing towers data (based on the as built drawings attached to the tender documents) and re-design (if necessary). We only find"Outline And Electrical Clearance Diagram" of tower type "400T10", "400T30", "400T90". Request you to furnish Outline And Electrical Clearance Diagram for Towers Type 400S (0-2°), Towers Type 400T60 (30-60°) and Towers Type 400T90/TRM (60-90°/ 0-45°)	Refer to item no 169 of clarification no. 2

69	Clause 22.4.1 of Section VII. Employer's Requirements- B – Specifications and as built drawings attached to the tender documents	The new towers shall be of the self-supporting type in Danube configuration to match the existing towers. Since the transmission line of the project is LILO of the existing lines, the contractor is advised to use the same towers data in order to create harmony with the existing line, however this is contractor's responsibility to check the existing towers data (based on the as built drawings attached to the tender documents) and re-design (if necessary). We only find"Outline And Electrical Clearance Diagram" of tower type "400T10", "400T30", "400T90". Request you to furnish design and shop erection drawings of following towers: 1. Towers Type 400S (0-2°) 2. Towers Type 400T10 (0-10°) 3. Towers Type 400T30 (10-30°) 4. Towers Type 400T60 (30-60°) 5. Towers Type 400T90/TRM (60-90°/ 0-45°)	Refer to item no 170 of clarification no. 2
70	Clause 22.4.1 of Section VII. Employer's Requirements- B – Specifications and Clause 17 - Testing and Inspection of Section VII - Employer's requirement - A - Scope of Supply	Please confirm that type test of towers will be required in case contractor re-designs the tower.	Refer to item no 171 of clarification no. 2
71	Clause 22.8 of Section VII. Employer's Requirements- B – Specifications	It is mentioned that Supply of complete set of conductors (Phase, ACS earthwire and OPGW) with all requisite accessories and fittings inclusive of joints etc. to realize work completion related to the scope. Please confirm that bidder shall quote for the itmes and their respective quantities as mentioned in the price schedule. Any additional quantity of conductor, OPGW, Earthwire and its accessories if required for temporary	Refer to item no 172 of clarification no. 2

		bypass and emergancy restoration system (ERS) shall be paid at extra.	
72	Item No. 3.06, 3.07 and 3.08 of Schedule 1B of Price schedule and 22.1.9. Spacer dampers of Section VII. Employer's Requirements- B – Specifications	We noted the quantity of Spacer damper for triple ACSR 'Condor' Conductor, Spacer for triple ACSR 'Condor' Conductor (for jumper loop) and Vibration dampers provided under Item No. 3.06, 3.07 and 3.08 of Schedule 1B of Price schedule. Further, as per clause 22.1.9. Spacer dampers of Section VII. Employer's Requirements- B – Specifications, "The Contractor may propose in addition to Stockbridge pattern dampers and rigid spacers, as specified above, an alternative system of spacer-dampers" In view of above we understand that, combination of either vibration damper and spacer or only Spacer damper be followed for this project. Please confirm.	Not Confirmed. Refer to Addendum 6 item no. 2
73	Item No. 3.06, 3.07 and 3.08 of Schedule 1B of Price schedule and 22.1.9. Spacer dampers of Section VII. Employer's Requirements- B – Specifications	We noted the quantity of Spacer damper for triple ACSR 'Condor' Conductor, Spacer for triple ACSR 'Condor' Conductor (for jumper loop) and Vibration dampers provided under Item No. 3.06, 3.07 and 3.08 of Schedule 1B of Price schedule. Further, as per clause 22.1.9. Spacer dampers of Section VII. Employer's Requirements- B – Specifications, "The Contractor may propose in addition to Stockbridge pattern dampers and rigid spacers, as specified above, an alternative system of spacer-dampers" In view of above we understand that, combination of either vibration damper and spacer or only Spacer	Not confirmed. The Spacer dampers shall be applicable as provided in the price schedules. Bidders shall quote as per the provisions of the latest price schedules issued in Addendum 6. In addition, refer to Addendum 6 item no. 2

		damper to be followed for this project. We note that as per price schedule, quantity of vibration damper (Item No. 3.08) and spacer damper (Item No. 3.06) has been provided. We understand that item no. 3.06 shall be read as spacer for main conductor instead of spacer damper as mentioned in the price schedule. Please confirm.	
74	Item No. 2.56 of Schedule 1B Transmission Line of Price schedule	As per item No. 2.56 of Schedule 1B, bidder shall quote for "Tower Obstruction Lighting complete including power supply, according to ICAO regulations, or other method, eg inductive, details to be provided." Please confirm the below: 1. bidder has option to quote Tower Obstruction Lighting complete including power supply **OR** Inductive type tower obstruction light under item no. 2.56 2. Bidder shall also quote solar powered tower obstruction lights as per item No. 2.57.	1. Yes ,either tower obstruction Lighting complete including power supply or inductive type tower obstruction light is to be provided 2. Yes , also solar power tower obstruction lights are required. For both Refer to Addendum 6 item no 15.
75	Clause 22.4.14. Aircraft warning markers, obstruction lights and tower painting of Section VII. Employer's Requirements- B – Specifications and Item No. 2.56 of Schedule 1B Transmission Line of Price schedule	As per tem No. 2.56 of Schedule 1B, bidder shall quote for "Tower Obstruction Lighting complete including power supply, according to ICAO regulations, or other method, eg inductive, details to be provided." As per Clause 22.4.14 (b), "The system offered shall be comprehensive and complete in every respect. If a system fed by cables is proposed, it shall be designed to withstand the induced high voltage that can occur during earth fault conditions. It shall consist of a constant current regulator, high voltage cable, dimmer switch, protection equipment, insulating transformers,	The bidder should conduct due diligence to collect relevant and required information

		lightning arresters, etc. **The connection and cabling to the nearest available safe mains supply shall be deemed to be included"** Request you to advise the distance between tower location and "nearest available safe mains".	
76	Item No. 2.56 & 2.57 of Schedule 1B Transmission Line of Price schedule and Clause 22.4.14. Aircraft warning markers, obstruction lights and tower painting of Section VII. Employer's Requirements- B – Specifications	We refer to Item No. 2.56 and 2.57 of Schedule 1B of Price schedule. As per these items bidder shall quote as per below: We, also refer to clause 22.4.14 of Section VII. Employer's Requirements- B – Specifications. As per this clause, The system offered shall be comprehensive and complete in every respect. If a system fed by cables is proposed, it shall be designed to withstand the induced high voltage that can occur during earth fault conditions. It shall consist of a constant current regulator, high voltage cable, dimmer switch, protection equipment, insulating transformers, lightning arresters, etc. The connection and cabling to the nearest available safe mains supply shall be deemed to be included. Should a solar powered system be proposed, the battery supplied shall be able to maintain the minimum luminous flux of 10 candela under the condition of dusty solar cells. A battery maintenance interval of 5 years minimum shall be guaranteed. Photovoltaic panel output shall be de-rated, over and above age de-rating, by 40%, on account of dust accumulation on the panel surface. The upper edges of the solar panels shall be fitted with stainless steel needle strips, effectively preventing birds from sitting in these locations.	Refer to item no 74 of this clarification

		In view of above please advise if tower obstruction ligts fed by cable as mentioned in item no. 2.56 to be proposed or solar powered tower obstruction lights as mentioned in item No. 2.57 to be proposed	
77	Item No. 2.56 & 2.57 of Schedule 1B Transmission Line of Price schedule and Clause 22.4.14. Aircraft warning markers, obstruction lights and tower painting of Section VII. Employer's Requirements- B – Specifications	We refer to Item No. 2.56 and 2.57 of Schedule 1B of Price schedule. As per these items bidder shall quote as per below: From Clause 22.4.14 it is understood that either of the 2 tower obstruction lights as mentioned in item no. 2.56 and 2.57 to be proposed. Request you to kindly advise total number of Tower obstruction lights are required for this projects. i.e. total 2 Nos. Tower obstruction lights will be required or 4 Nos. of Tower obstruction lights will be required for this project.	Bidders shall quote as per the provisions in the latest revision of Price Schedule issued in Addendum 6.
78	Drawings LVAC SLD / GTP	Busbar current ratings mentioned in the LVAC SLD and GTP are given as 1250A and 1000A respectively. Please clarify.	Refer to Addendum 6 item 11
79	Drawings LVDC SLD / GTP	Short circuit current rating for 48V LVDC is mentioned as 10kA in SLD and 6kA in GTP. Please clarify.	Refer to Addendum 6 item 12
80	Section-VII-2A-Scope & General Requirements	**Rainfall Intensity**: Kindly provide the rainfall intensity data for the substation area.	Refer to Section-VII-2B-Specification, Part 2.1.4 , table a)site conditions
81	Section-VII-2A-Scope & General Requirements	**Temporary works:** We request you to provide elaborated description of Temporary works which is mentioned in price schedule Schedule 4A_SS; 15.5.	Refer to latest version of the price schedules issued in Addendum 6.
82	Technical Dats Sheet for DC System	**110V & 48V Battery & Charger:** AH capacity for 110V & 48V batteries are mentioned as 250AH and 200AH respectively in technical data sheets.	110 V batteries should have a minimum of 1250 Ah. For 48 V, minimum of 200AH remains applicable. Refer to Addendum 6,

		These ratings are too less considering scope of works. Please review the ratings and confirm.	item 16. Bidders to submit offered requirements based on sizing calculations to meet full functionality
83	Telecommunication system	**Telecom and NCC/RCC/NSCC/ECC Integration:** In Clarification 1, existing Telecom equipment makes are mentioned as Hitachi. However, we learnt that M/s GE has is executing contract with KETRACO to replace the ABB/Hitachi dispatching center and upgrade the existing telecom network with GE telecom MPLS equipment and further GE make telecom equipment are being installed in KETRACO substations associated with present scope network. Please review and confirm make of Telecom equipment bidder can offer for the subject project. Further we understand that NCC/RCC are with Hitachi systems and NSCC/ECC are with GE systems installed for SCADA. As per scope, integration at all four places shall be in scope. Please confirm our understanding.	Not Confirmed. The existing make (as mentioned in clarification no 1 items 66, 83,100,138) must be considered. Both the existing NCC and new NSCC system of telecommunication network and dispatching centers is to be considered as the scope of works. Refer to Section_IV-Price_Schedule, Schedule1A_SS item 10 and Schedule2A_SS item 10
84		The total budget allocated for the entire KIMUKA Substation Project, including all associated works.	Refer to World Bank, *Kenya - Second Phase of Green and Resilient Expansion of Energy Program Project (English),* Washington, D.C. : World Bank Group available on: http://documents.worldbank.org/curated/en/099032924161542351
85		A detailed breakdown of the total line length associated with the project.	Refer to Section-VII-2A-Scope & General Requirements, Section 1.1 Site Location, Figure 2
86	Section VII. Employer's Requirements- B – Specifications CL.NO-11.3.2.1. General Design Requirements,Pg.No-196	As per bidder assessment, a solar PV system may not be suitable as the **primary source** for high continuous lighting load with a 48-hour battery backup requirement.	Not accepted. Refer to clarification no 2 item 422.

	Solar PV System shall be the primary source of supply to indoor and outdoor lighting loads. The Solar PV System shall monitor the battery voltage, charge and discharge current, stored energy and time to discharge threshold. It shall have the capability to automatically transfer the entire lighting load to the Control Building's main LVAC supply source until the Solar PV battery is fully recharged.	Instead of that, bidder to recommend that using the solar PV + battery solution to power only the emergency lighting and critical loads. This will ensure operational reliability and system feasibility. Kindly accept our request.	
87	Section VII. Employer's Requirements- B – Specifications CL.NO-11.3.2.1	Based on the bidders preliminary estimates, the system would need approximately 200 kW to supply the entire indoor and outdoor lighting load. To support this, a battery storage capacity of approximately 5,100 kWh would be required, considering a backup duration of two days. To charge this battery system using solar PV, around 550 kWp of PV capacity would be needed. This solar capacity would require approximately 3 acres (12,140 square meters) of shadow-free land and would take around 2 days of effective solar generation to fully charge the battery system. In the tender document, area required for solar PV module is not identified. Therefore, please indicate and inform the suitable land where the solar plant can be installed near to the substation plot. Please confirm that the sufficient space / land will be given to bidder near substation plot during the project execution.	Refer to clarification no 2 item 422. The declared preliminary estimation as 200kw is not correct and seems extravagantly more than the required indoor and outdoor lighting load. Note that all lightings shall consider low power LED high lumen efficiency lamps type.
88	Price schedule 1B_TL, Item no. 7.0 "ERS TOWER SET" and Price schedule 4B_TL, Item	No. of ERS Towers quantity is mentioned in Supply price schedule but it is mentioned as lumpsum item in	The quantities to be installed shall be determined and priced by the bidder.

	no. 8.05 "ERS towers assembly and disassembly and handover to the employer"	installation price schedule. Request to provide the installation quantities of no. of ERS towers, length of ERS bypass line.	Bidders to quote as per the provisions in the latest price schedule issued in Addendum 6.
89	Price schedule 4B_TL , Item no. 8.02 "Re-tensioning a part of existing lines and all associated works in order to connect the new lines to the existing ones "	Please elaborate the scope of Re-tensioning work in the spans and towers.	Re-tensioning works shall include, but not be limited to, the inspection, measurement and adjustment of conductor tension to meet the designed sag and tension requirements, as well as the necessary adjustments to tower attachment points and fittings. This shall be applicable for the existing line sections being modified following addition of new towers.
90		As we are reviewing our eligibility and preparing our bid, we would be grateful if you could confirm whether the absence of such a specific 400 kV transmission line project would result in: 1. A reduction in the technical evaluation score as part of a point-based assessment, or 2. A failure to meet a mandatory qualification requirement, leading to direct disqualification.	The absence of experience as detailed in Factor 1: Specific Experience of the Bidder in page 63-65 in Section III – Evaluation and Qualification Criteria will result in reduction in the technical evaluation score. However, the Bidder must first meet all the mandatory qualification requirements listed on page 72-82. Failure to meet those requirements will lead to disqualification. Next the bidder must comply with the minimum technical requirements of the bid thereafter they will be subjected to qualitative evaluation with the application of the rated criteria. Refer to https://thedocs.worldbank.org/en/doc/9dcb7971706bf29b2732779c39922b77-0290012025/original/Evaluating-Bids-and-Proposals-with-Rated-Criteria-Feb-4-2025.pdf for further details on how the evaluation will be conducted.

91	Section IX Article 2 Clause 2.2	As per the referred clause, " The Employer may instruct its bank to issue an irrevocable confirmed documentary credit made available to the Contractor in a bank in the country of the Contractor. " In this regard, please confirm payment will be through irrevocable letter of credit.	Not confirmed. This shall be agreed upon during contract negotiation.
92	Section IX PCC clause 14- Taxes and Duties	As per Clause 14 of PCC- 'Tax exemptions will be applicable on all taxable goods and services imported or purchased locally for the exclusive and direct use in execution of project. In this regard, exemptions shall be applicable as per the tax laws of the Republic of Kenya. Exemptions are applicable for VAT as provided for under the First Schedule to the VAT Act. Others include exemptions from Railway Development Levy (RDL), Import Duty, Excise Duty, and Import Declaration Form (IDF) Fees'. We understand that output VAT for Schedule 4 INSTALLATION AND OTHER SERVICES are exempt and prices are to be quoted exclusive of VAT for Schedule 4. Please confirm.	The project is exempt from VAT for all schedules and prices are to be quoted exclusive of VAT. The Contractor will initiate the exemption request to enable the Employer to facilitate the request through Ministry of Energy, National Treasury, and Kenya Revenue Authority. However, the Contractor must engage a competent agent to follow up with the relevant agencies such as Kenya Revenue Authority, Kenya Bureau of Standards, and Kenya Ports Authority. Bidders to conduct the necessary due diligence.
93	Section IX PCC clause 14- Taxes and Duties	As per Clause 14 of PCC- 'Tax exemptions will be applicable on all taxable goods and services imported or purchased locally for the exclusive and direct use in execution of project. In this regard, exemptions shall be applicable as per the tax laws of the Republic of Kenya. Exemptions are applicable for VAT as provided for under the First Schedule to the VAT Act. Others include exemptions from Railway Development Levy (RDL), Import Duty, Excise Duty, and Import Declaration Form (IDF) Fees'. We understand that output VAT for Plants supplied from	Refer to item 92 of this clarification.

		within Kenya as specified in Schedule 2 are exempt and prices are to be quoted exclusive of VAT for Schedule 2. Please confirm.	
94	Section IX PCC clause 14- Taxes and Duties	As per Clause 14 of PCC- 'Tax exemptions will be applicable on all taxable goods and services imported or purchased locally for the exclusive and direct use in execution of project. In this regard, exemptions shall be applicable as per the tax laws of the Republic of Kenya. Exemptions are applicable for VAT as provided for under the First Schedule to the VAT Act. Others include exemptions from Railway Development Levy (RDL), Import Duty, Excise Duty, and Import Declaration Form (IDF) Fees'. We understand that input VAT incurred on imports for Plants supplied from abroad as specified in Schedule 1 and designing services as specified in Schedule 3 are exempt and prices are to be quoted exclusive of VAT for Schedule 1 and 3. Please confirm.	Refer to item 92 of this clarification.
95	Section IX PCC clause 14- Taxes and Duties	As per Clause 14 of PCC- 'Tax exemptions will be applicable on all taxable goods and services imported or purchased locally for the exclusive and direct use in execution of project. In this regard, exemptions shall be applicable as per the tax laws of the Republic of Kenya. Exemptions are applicable for VAT as provided for under the First Schedule to the VAT Act. Others include exemptions from Railway Development Levy (RDL), Import Duty, Excise Duty, and Import Declaration Form (IDF) Fees'. We understand that the entire project is exempt from VAT for all schedules and prices are to be quoted exclusive of VAT. Please confirm	Refer to item 92 of this clarification.
96	Section IX PCC clause 14- Taxes and Duties	As per Clause 14 of PCC- 'All income received by contractors/consultants/experts or other third party	Withholding Tax is on all income and is applicable on the full EPC contract sum.

		engaged by the borrower in connection with the Contract, from the proceeds of the loan under this agreement, shall be subject to income tax in accordance with applicable laws in Kenya.' In this regard please confirm whether any withholding would be done for Plants supplied from abroad as specified in Schedule 1 provided by non resident companies in Kenya. If yes, please provide applicable rate.	Please note withholding tax rates are prescribed on KRA website https://www.kra.go.ke. Bidders to conduct the necessary due diligence.
97	Clarification 1 KETRACO response against S.no-20.	As per the response Equipment shall be provided for 2000m altitude except as otherwise stated in the Schedule of Technical Information. In this regard kindly note that 1850m altitude is stated in the Schedule of Technical Information. Hence, we understand 1850 m altitude to be consider for this project. Please confirm	Refer to clarification no2 item no 113
98	Clarification 1 KETRACO response against S.no-26.	As per the response Daily stipend allowance of US$ 200 per day to cater for incidental expenses for the entire duration of the design review period is not required to be considered whereas Scope of Supply clause 30.3 indicates the requirement of Daily stipend allowance of US$ 200 per day to cater for incidental expenses for the entire duration of the design review period. Please clarify.	Clarification 1 item no 26 was referring to the Daily Stipend for the Employer's representative (Consultant's Expert for clarity). Daily stipend for the Employer/KETRACO staff is applicable as per Section VII. Employer's Requirements- A - Scope of Supply clause 30.3.
99	Clarification 1 KETRACO response against S.no-144.	As per the response, we understand that there is new control building in 400kV Kimuka Substation. However as per the Note provided under Clause 18.3 of Section VII 2B the battery room windows shall be modified to minimize the batteries exposure to sunshine in the existing substation. In view of above please clarify whether modification work in the existing substation is part of this project or	Refer to clarification no 1 item 144

		not. If yes, please provide specific renovation requirements.	
100	Section VII 2 B- 9. Telecommunication System	We assume that there are space/ports at existing remote end & only integration part is in our scope. Please confirm.	All required equipment and modification is part of the scope of works. Refer to Section_IV-Price_Schedule, Schedule1A_SS and Schedule2A_SS, item 10.
101	Section IV Price Schedule Section VII 2D Drawings Section VII 2 B- Item 10.1.11	As per Telecom BoQ (Category/Item 10.1.11), TEPI is mentioned for distance protection. However in Kimuka-400-220kV-SS-Telecom-System-Layout (DWG. No.: MT-TLD-KETCO-5393-DD-01-PG-253) distance protection mentioned based on C37.94 protocols. Please note that TEPI card is Teleprotection for Distance Protection over TDM Services, command based (4 Commands) not C37.94 protocol based. Please clarify actual need of the interface.	Both hardwired (command based) and C37.94 are acceptable. Refer to Addendum 6, item 18 (revised Kimuka Telecommunication System Layout).
102	Section IV Price Schedule Section VII 2D Drawings Item 10.1.11, Item 10.1.12, Item 10.1.13	As per Telecom BoQ (Category/Item 10.11.1) 2x Optical Distribution panel is requested and in (Category/Item 10.11.2 & Category/Item 10.11.3) 5x "Optical Distribution Unit (OCDF) or 48 cores fiber & 5x "Digital Distribution Unit (ODF) for 48 cores fiber" are requested respectively. however in Kimuka-400-220kV-SS-Telecom-System-Layout (DWG. No.: MT-TLD-KETCO-5393-DD-01-PG-253) only 3x "Digital Distribution Unit (ODF) for 48 cores fiber" in 1x Optical Distribution panel is shown. Please clarify the requirement.	Refer to Clarification no1 item 131 And new drawings issued in Addendum 6, item 18 (revised Kimuka Telecommunication System Layout).
103	Section IV Price Schedule Section VII 2D Drawings Item 10.1.15	As per Telecom BoQ (Category/Item 10.11.5) , "48 Core Steel Tape Armoured Outdoor Optical Fiber GYXTW" is requested. We understand that this is indicating to approach cable which is connected between ODF to Junction Box as shown in our layout.	Confirmed

		Please confirm.	
104	Section VII 2 B- 9. Telecommunication System	Please note that new release of some cards are being offered in the FOX615 solution due to non availability of the old versions of those cards and those cards may not be possible to manage with the existing FOXMAN-UN NMS release. User may need to configure/monitor it from the node itself. Hence it is recommended to upgrade the NMS to the latest version to get full remote access functionality. In view of above please clarify whether NMS upgradation needs to be considered in the scope of this project	All required equipment and modification is part of the scope of works. Refer to the latest Price Schedule (issued in Addendum 6), Schedule1A_SS item 10.10 and Schedule2A_SS item 10.10 and Schedule4A_SS item 10.12 and also Section-VII-2B-Specification clause 9.2.
105	Soil Resistivity	Please provide the Soil Resistivity for exact earthing design.	Refer to Clarification no 1, item 2
106	Section III – Evaluation and Qualification Criteria 4.2(b) Specific Experience	Below QR is mention against 4.2(b) Specific Experience "Completion of at least one 380kV and above substation having at least two (2) line bays and one (1) transformer bay and in successful operation during the last ten (10) years from the date of bid opening." However, 10 years period for executed project stipulated under 4.2(a) Specific Experience, in view of this We understand that "successful operation during the last ten (10) years from the date of bid opening." is not applicable.	Not Confirmed
107	Section III – Evaluation and Qualification Criteria 1.4 Subcontractors/Manufacturers Pg-57	For 400/220 kV switchyard equipment *"iii. Supplied at least one hundred (100) units per year with 400 kV or above rating over the last ten (10) years, supported by end-user certificates/letters from the*	Refer to Addendum 4 item no 3.

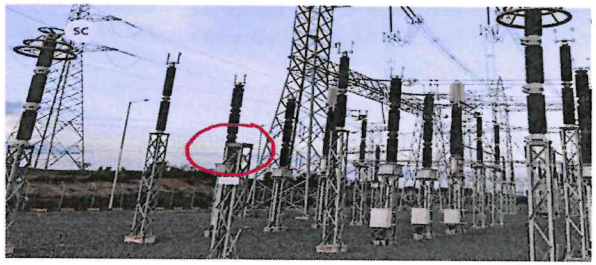
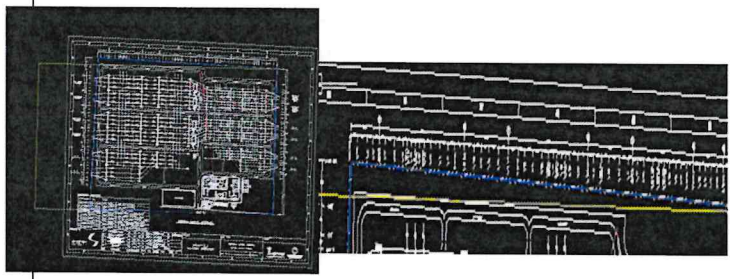
		utilities/clients with comprehensive contact details"* However kindly note that 100 unit per year over the last 10 years is significantly high. We understand that it should be total 100 units over the last 10 years	
108	Section VII. Employer's Requirements- A - Scope of Supply Clause Ref.1.2.2	We understand that there is replacement of existing distance relay with new differential relay in existing substation name. Please provide existing main 1 relay make & model & clarify regarding new main 2 relay make & Model requirement.	For make and model of all related relays refer to Clarification no 1, items 63(Suswa), 80 (Isinya) and 97 (Existing Kimuka). For requirements follow a. Section-VII-2B-Specification clause 8, b. Drawing no 4.Kimuka-400-220kV-SS-400kV-PSLD in Section-VII-2D-Drawings c. : Kimuka-400-220kV-SS-220kV-PSLD in addendum 3: attachment 1
109	Section VII. Employer's Requirements- A - Scope of Supply Clause Ref.1.2.2	Please clarify regarding the existing 220/66 kV Kimuka substation Main I & Main II Protection relay make & model, if it can be of same make & model.	For make and model of all related relays refer to Clarification no 1, items 97 About the make and the model, the existing differential make has to be matched on the remote station, for the new relay, this can be as per bidder's selection.
110	Section VII. Employer's Requirements- A Clause Ref.1.2.1-g	As per tender drawing provided, Bay control room position is not clear. Please confirm if we can propose the position as per site availability.	Refer to clarification no 2 item 212
111	Auxiliary Transformer	Kindly provide loading requirement for correct sizing for Auxiliary Transformer	The sizing is already indicated in Section VII. Employer's Requirements- A - Scope of Supply clause 1.2.1 and in the price schedules (issued in Addendum 6) as well.
112	Battery	Kindly provide loading requirement for correct sizing for BATTERY.	Refer to item no 82 of this clarification for the minimum AH Capacity. However final sizing shall be determined by the Contractor during detailed design and

			subject to approval by Employer / Employer's Representative
113	Drawings SLD	As per the Kimuka-SS-220kV-SLD Following CT ratio with core details as follow: Core : 800-100/1A, 0.2S, 50VA 100A is extremely low ratio with high burden and 800A is extremely high ratio. Due to technical feasibility we unable to offer such ratio difference. Can we propose 800-200/1A, please confirm.	800-400/1 A is applicable. Refer to Addendum 6, item 19 (Revised Kimuka-400-220kV-SS-220kV-SLD)
114	Drawings Plan Layout	There are two plan layouts 1) Overall Layout , 2) Scope of Work layout. In the Scope of Work layout 4 no.s of building are missing (Technical Staff Housing & Security Staff Housing). Please Clarify whether those building are in the present scope or not.	Yes the technical and security staff housing are part of the current scope of works. Refer to Addendum 4 Attachment no. 13
115	Drawings SLD	Current rating for 220kV Circuit breaker is given as 2500A in the SLD, while busbar current rating is 3150A. We understand that Circuit breaker continuous current rating will be 3150A. Please confirm	Refer to Section VII. Employer's Requirements- E – Schedules of Technical Information clause c, item 1: circuit breakers that provides the requirements.
116	Section VII. Employer's Requirements- A - Scope of Supply Clause Ref.3-h	Please confirm the altitude level to be considered for equipments to be supplied is 1850m: (h) Altitude The height above sea level shall be considered as 1850m. The insulation levels of external insulation shall be determined in accordance with IEC 62271-1, Clause 2.2.1. **Important Note:** All main and spare equipment shall be provided for proper operation in four altitude categories (to optimize main equipment/ spare parts and achieve interchangeability at country level), including 1000, 1500, 2000 and 2500 meter above sea level. In case of other range may has been mentioned in the schedules of technical information (Part 2-E), the higher altitude category shall be considered.	Refer to Clarification no 2, item no 113

117	Section VII. Employer's Requirements- B – Specifications Clause Ref.22.1.4	As per the GTP type of stranded conductor is AAAC/AAC, but it is mentioned as ACSR in the specifications. Please confirm.	AAAC/AAC are conductors for the substation while ACSR is for the transmission line. Refer to Section VII. Employer's Requirements- E – Schedules of Technical Information, clause b, item 6 and clause 6 item 6 for conductors for the substation. Refer to Section VII. Employer's Requirements- E – Schedules of Technical Information, clause bb, item 4 for conductors for the transmission line
118		Please provide the existing substation conductor sizes, type, no. of sub conductors and Al tube size for requirement of 220kV to 400kV bay shifting	Bidder is to conduct due diligence. It is the bidder's responsibility to adequately design and select correct sizing of required materials.
119		Please confirm the supply of low control & power cable is not required in the existing substations.	Not confirmed. Refer to the latest Price Schedule (issued in Addendum 6), Schedules 1A_SS,2A_SS and 4A_SS.
120	Test & Inspection Section VII. Employer's Requirements- A – Scope of Supply Clause GCC 23.1 & 23.2,	In Page no.51 Scope of Supply , Under FAT- *" The costs associated to carrying out the above FATs shall be borne by the Contractor and the Contractor should consider this cost in Section IV- Price Schedule. This shall include but not limited to* *I. Return flight ticket on economy class for employer and consultant.* *II. Visa application and processing fee and Local transport expense at the manufacture's country.* *III. Full board accommodation in a minimum 4-star hotel including laundry services, local and domestic transportation, per diem allowances, all internet and international calls expenses, FAT documentation and daily allowance of USD 200 to cater for incidental*	Refer to Addendum 6 item 20, the provisions provided therein shall supersede the provisions in GCC 23.2. The provisions of clause 17 (Factory Acceptance Tests) of '*Section VII. Employer's Requirements- A - Scope of Supply*' with regards to what is to be provided to participating KETRACO Engineer shall apply.

		expenses per KETRACO Engineer per day." But As per GCC 23.1 & 23.2 - 23.1 "*The Contractor shall at its own expense carry out at the place of manufacture and/or on the Site all such tests and/or inspections of the Plant and any part of the Facilities as are specified in the Contract.* *23.2 The Employer and the Project Manager or their designated representatives shall be entitled to attend the aforesaid test and/or inspection, provided that the Employer shall bear all costs and expenses incurred in connection with such attendance including, but not limited to, all traveling and board and lodging expenses.* " As per Section VII ,clause 9.Variations from Conditions of Contract & Section IX Article 1, We understood that GCC clause will prevail and all cost will be bourne to Client. Please confirm	
121	Section VII. Employer's Requirements- B – Specifications Clause Ref.11.3.3.1	Please confirm it is 2 x 100% and not 2 x1000%, As mentioned in technical specifications: "The 110 V battery system shall comprise 2 x 1000% rated duty Nickel-Cadmium (Ni-Cd) type battery units and 2 x 100% rated duty float/boost charger units."	Refer to Clarification no 1 item 127
122	Section VII. Employer's Requirements- B – Specifications11.3.2	We understand that the complete indoor and outdoor lighting is to be supplied by Solar PV system as primary source for present scope requirement. Please clarify regarding the place of solar panel module installation.	Refer to clarification no 2 item 422
123	Drawings Kimuka-400-220kV-SS-Guard-House-and-Telecom-Collocation-Room-Architectural	We understand that the battery energy storage system for solar PV system will be place in Guard-House-and-Telecom-Collocation-Room building, we envisage that the battery energy storage requirement is huge and it	The battery room space indicated in the Guard house and Telecom-Collocation Room Building is for accommodating batteries that are related to EPABX system

		can not be placed in the provided battery room dimensions. Please confirm that we can change the dimension of the building as required and adjust in the given plan layout.	for communication between guard house and individual Staff housings and for batteries for the panels to be installed in the customer equipment room. Solar PV battery banks shall be installed in the battery room of the Control Building (Section-VII-2B-Specification part 11.3.2.4)
124	Drawings Kimuka-400-220kV-SS-Diesel-Generator-House-Architectural	We understand that both the 500kVA & 200kVA DG set will be placed in the Diesel generator house. And the building dimensions can be optimized as per the OEM requirements.	Not confirmed. The Main 500 kVA is the only one to be in the diesel generator room. For the 200 kVA generator, Refer to clarification no 2 item 423 and Addendum 6 item no 25.
125	Price schedule 15.2.1	Requirement of 5 no's of 110V DC Main & distribution panel as per the price schedule. Please clarify.	The 5 panels are required. Follow the quantities indicated in the Price Schedules issued in Addendum 6.
126	Price schedule 15.3.1	Requirement of 3 no's of 48V DC Main & distribution panel as per the price schedule. Please clarify.	Refer to Clarification no 1 item 135.
127	Existing Isinya Substation	Please clarify the requirement of lot item quantity below: a) Dead end tower to substation gantry tower distance. b) Within the substation connections are required only up to first line CT. c) Requirement of DSLP and OPGW/Fiber Optic Cables for Suswa-1 line bay.	a) Bidder's should conduct due diligence. b) All the works stipulated in Section-VII-2A-Scope & General Requirements section 1.2.4 is in the scope of work of contractor c) All the works stipulated in Section-VII-2A-Scope & General Requirements section 1.2.4 is in the scope of work of contractor

128	Existing Isinya Substation	As shown in the picture the 1 no. of 400kV SA in Suswa-1 line is missing . We understand that it will be supplied by client. 	Confirmed. Supply of the indicated surge arrester isn't in contractor scope of work.
129	Section-VII-2B-Specification Layout	 It has been observed that a portion of the plot remains unutilized. Kindly confirm whether the substation can be repositioned within the available area of the plot, in accordance with applicable design and operational requirements.	Confirmed. The Contractor shall optimize the design during detailed design stage and this will be subject to the Employer's approval.
130	Section-VII-2B-Specification Substation Coordinates	We understand that the plot coordinates have been provided; however, the substation coordinates have not been specified. We request you to please provide the coordinates for all four corners of the substation.	Refer to Clarification no 2 item 288.

131	Section-VII-2B-Specification Staff Houses Coordinates	Kindly provide the coordinates for all corners of the dwelling houses' location.	Refer to clarification no. 2 item no. 289
132	Section-VII-2B-Specification Bay Control Room Building- Quantity	As per Section-VII-2A-Scope & General Requirements, We understand that there is requirement for Bay Control Room Building. We request you to kindly provide quantity of building.	Refer to clarification no 2 item 212. For the number of Bay Control Rooms (BCRs) refer to Section-VII-2B-Specification clause 2.4.
133	Section-VII-2B-Specification Bay Control Room Building- Location	As per Section-VII-2A-Scope & General Requirements, We understand that there is requirement for Bay Control Room Building. We request you to kindly provide location of building in layout.	Refer to clarification no 2 item 212
134	Section-VII-2B-Specification Layout	We understand that as per Section-VII-2A-Scope & General Requirements, 14-6.Kimuka-400-220kV-GENERAL LAYOUT (OVERALL) should be followed as we have two layout. Please confirm.	All drawings provided should be used for reference purposes only.
135	Section-VII-2B-Specification Earthwork	Based on the existing layout plan, the substation occupies a limited area of the overall plot. We take this to mean that earthwork is necessary solely for the substation footprint, and not for the surrounding unused land	Not confirmed. Refer to clarification 2 item no. 35.
136	Section-VII-2B-Specification Layout	Upon comparing the substation layout with the plot boundaries, it has been observed that a portion of the substation extends beyond the property limits. Kindly verify and confirm the dimensions of the plot and the layout accordingly. Yellow line is Plot outside the Substation layout and blue lines is Substation layout.	Refer to Addendum 4, attachment 5 that indicates the correct plot boundaries and confirming that the substation layout requirement is well within the land available.
137	Section-VII-2B-Specification Drain	We understand that all internal drains inside the substation are open drain without steel grating.	Not confirmed. Refer to Section-VII-2B-Specification part 18.23.9.1
138	Section-VII-2B-Specification Solar PV Structure	We understand that, in the context of solar PV installations, there is no mandatory structural requirement.	In accordance with clause 1.4.4 of Section-VII-2B-Specification, design, supply and installation of support structures with all the requisite accessories for the solar PV system shall be part of the scope. In addition, any steel structures / bolts / nuts

			to be used shall be hot dip galvanised in line with the same specifications.
139		Is it acceptable for a group of companies to submit a joint bid under a "Consortium" arrangement (with clearly defined scopes and separate liabilities), or does the Employer require the bidders to form a "Joint Venture" with joint and several liability as described. Therefore please provide us your response. under ITB 4.1 and ITB 21.4?	The provision of ITB 4.1 and ITB 21.4 shall prevail. All members in a joint venture shall be jointly and severally liable for the execution of the entire Contract in accordance with the Contract terms. Consortium with limited / separate liabilities are not permissible.
140	Request for Time Extension	As per received previous clarification, we require enough time to review it. We would also request you here to Extend the time limit of bid submission four (4) Week, i.e. till 18th September 2025 instead of 21st August 2025.	Refer to Addendum 5.
141	Request for Time Extension	Request you to provide the clarifications from your end at the earliest for our better understanding of the scope of works. Also we request you to grant an extension of four (4) weeks from the current due date of 21st August 2025.	Refer to Addendum 5.
142	Clause 22.8.2.Technical Specification for ERS - Scope of Supply (c) of Section VII. Employer's Requirements- B – Specifications	As per Clause 22.8.2, Technical Specification for ERS – Scope of Supply (c), of Section VII. Employer's Requirements – B: Specifications, it is mentioned that"Five-day field training to cover ERS tower assembly, erection, dismantling, storage, and maintenance of ERS." Kindly clarify the following points regarding the training: i) the number of participants required to undergo this training. ii) Will transportation and accommodation for the trainees be provided by the Employer or the Contractor?	The training shall be for ten people in accordance with the last paragraph in clause 31of Section-VII-2A-Scope & General Requirements.

		iii) Are daily allowances to be provided to the trainees? If so, please specify the applicable rate.	
143	Item No. 2, STEEL TOWERS with stub, Schedule 1B_TL and Item No. 2, FOUNDATION WITH STUB, Schedule 4B_TL	As per Item No. 2 – STEEL TOWERS with stub, Schedule 1B_TL, the total number of towers is 14. However, as per Item No. 2 – FOUNDATION WITH STUB, Schedule 4B_TL, the total number of foundations is calculated as 35, which is significantly higher and does not match the number of towers. Therefore, we kindly request you to correct the required quantities and provide us with a revised Price Schedule.	Bidders shall quote as per the provisions in the latest revision of Price Schedule issued in Addendum 6.
144	Item No. 2, STEEL TOWERS with stub, Schedule 1B_TL, Body extensions and leg extensions for each type of Tower Type	As per Item No. 2 – STEEL TOWERS with stub, Schedule 1B_TL, there are several types of body extensions and leg extensions required, whereas the quantity of towers of each type is very small. Therefore, we kindly request you to provide the exact type of body extension and leg extension that will be required. Accordingly, we request you to revise the required quantities and provide us with the updated Price Schedule.	Bidders shall quote as per the provisions in the latest revision of Price Schedule issued in Addendum 6.
145	Clause 22.4.10 & 22.6.1 of Section VII. Employer's Requirements- B – Specifications	As per Clause 22.4.10,"No standard rolled steel section shall be less than 4.75mm thick. However , as per Cl. 22.6.1, it is mentioned that " The material used for main leg angles and stubs shall not be less than 6 mm thick and the material used for all other tower steelwork shall have a minimum thickness of 4 mm". Kindly clarify min. thickness of members to be considered.	The material used for all main members including legs, tower top verticals, crossarm members (except bracing) and stubs shall not be less than 6 mm thick and the material used for all other tower steelwork shall have a minimum thickness of 4 mm. Refer to item 21 of Addendum 6.
146	Clause 22.1.4 of Section VII. Employer's Requirements- B – Specifications & item no. 4.1.13 Schedule of Technical information	As per Clause 22.1.4 Table of ACSR 'Condor' characteristics, UTS of conductor is given as 125.44kN. However , as per Schedule of Technical information, the required value of UTS of conductor is given as 127.8kN.	Refer to item 167 of clarification no 2

		We understand the correct value should be. 125.4kN. Kindly confirm	
147	Clause 22.1.5 of Section VII. Employer's Requirements- B – Specifications & item no. 1.10 Schedule of Technical information	As per Cl. 22.1.5 Table of EW characteristics, Modulus of elasticity is given as 160kN/mm^2. However , as per Schedule of Technical information, the required value of Modulus of elasticity is given as 162kN/mm^2. We understand the correct value should be 160kN/mm^2. Kindly confirm	Refer to item 168 of clarification no 2
148	Clause 22.4.1 of Section VII. Employer's Requirements- B – Specifications	As per Cl. 22.4.1,"Since the transmission line of the project is LILO of the existing lines, the contractor is advised to use the same towers data in order to create harmony with the existing line. However this is contractor's responsibility to check the existing towers data (based on the as built drawings attached to the tender documents)". However, there are no As-built drgs furnished. Kindly furnish the same. Also, If existing towers to be used , Kindly provide tower design , structural drgs, Bill of material & Foundation forces of existing towers.	Refer to item no. 169 of clarification no. 2
149	Clause 22.4.9.5 of Section VII. Employer's Requirements- B – Specifications	As per the Clause, details related to Tower testing are provided. However, the height of the tower body to be tested is not mentioned. Also, We understand that if Existing tower designs are adopted, Tower test is not required. Kindly confirm.	Refer to the latest price schedules (issued in Addendum 6), -schedule 1B_TL and schedule 2B_TL section 8.0- tower type tests on the height of towers to be tested. All towers shall be tested-Refer to Clarification no. 2 item no. 171
150	Clause 22.4.3 of Section VII. Employer's Requirements- B – Specifications	As per the Clause, for design purposes, Max.wind velocity of 40m/s (3s wind) shall be assumed. However, no additional details required for calculating wind pressure like Terrain category, altitude etc are provided. Kindly furnish the same.	Refer to Clarification no. 1 item no. 156 Refer to Clarification no. 2 item no. 267 & 435
151	Clause 22.3.3.9 & 22.6 of Section VII. Employer's Requirements- B – Specifications	As per Cl. 22.3.3.9,"All insulator strings shall be attached to cross-arms by means of shackles".However, as per Cl.	The connection to the tower shall be of the hinge type as specified in the drawings

		22.6, "All attachments shall be of 'hinge' type. Ubolt/shackle attachment type shall not be allowed".Moreover, as per drawings furnished in specification, Insulator string attachment to the tower is Hinge type & for Earth conductor assembly, the attachment is through Shackle. Kindly clarify whether attachment to the tower will be of hinge type or Shackle for both Insulator strings & Earth conductor/OPGW assemblies.	provided for the suspension and tension insulator strings, while the attachment for the Earth conductor/OPGW assemblies can be of the shackle / hinge type. Refer to item 23 and 24 of Addendum 6.
152	Clause 22.3.3.1 of Section VII. Employer's Requirements- B – Specifications & Specification drgs	As per table provided in Cl. 22.3.3.1, UTS of Suspension insulator is 210kN. However as per drgs provided in Sec VII-2D-Drawings, UTS of Insulator is shown as 120kN. Kindly clarify that UTS of insulator is 210kN.	Refer to addendum 6 item 3
153	Clause 22.3.3.6 of Section VII. Employer's Requirements- B – Specifications & Specification drgs	As per table provided in Cl. 22.3.3.6, UTS of Suspension string is given as 2*210kN. However as per drgs provided in Sec VII-2D-Drawings, UTS of Suspension Insulator string is shown as 240kN,i.e 2*120kN. Kindly clarify that UTS of Suspension insulator string is 2 *210kN.	Refer to addendum 6 item4
154	Clause 22.4.12 of Section VII. Employer's Requirements B – Specifications	Step bolt diameter is not provided. We are considering 16mm diameter step bolt with 180mm length. Kindly confirm.	Confirmed. These shall be the minimum expected parameters. Step bolts must be grade 5.6 at a minimum. Refer to item 22 of Addendum 6.
155		Kindly provide route co-ordinates & KMZ file for the line.	Refer to clarification no 2 item 162.
156	Clause 35. Tree Growing Initiative of Section VII. Employer's Requirements- A - Scope of Supply. Page No. 84	It is mentioned "The contractor shall undertake a tree growing exercise at location(s) to be identified in consultation with KETRACO and relevant authorities" Request to specify the location(s) of tree planting.	Refer to clarification no 3, item 20
157	Clause 35. Tree Growing Initiative of Section VII. Employer's Requirements- A - Scope of Supply. Page No. 84.	It is mentioned "1. Selection of trees species with highest survival rate and can grow with baseline environmental conditions at the selected planting locations."	The trees species will be determined in consultation with KETRACO and relevant authorities during project implementation.

		Request to specify the trees species.	
158	Clause 22.8.1. General Requirements of Section VII. Employer's Requirements- B – Specifications. Page No. 434.	It is mentioned "(g) Provision of requisite training to KETRACO operations staff to impart knowledge and skills on ERS installation and recovery works to be able to undertake restoration works independently with the materials and tools supplied as part of the work scope" Please specify the no. of staff the training to be provided.	Refer to item 142 of this clarification
159	Clause 22.8.1 & 22.8.2 of Section VII. Employer's Requirements- B – Specifications Page No. 434 & 435.	As per clause 22.8.1(g) of Section VII. Employer's Requirements- B – Specifications, "Provision of requisite training to KETRACO operations staff to impart knowledge and skills on ERS installation and recovery works to be able to undertake restoration works independently with the materials and tools supplied as part of the work scope" Further, as per clause 22.8.2 of Section VII. Employer's Requirements- B – Specifications, "The ERS supply scope shall include but not limited to the following: - Design, manufacture, packing, and delivery, training Supply of one (1) set of erection & special tools required for installation and restoration of the ERS requested by the Employer in this document. Five-day field training to cover ERS tower assembly, erection, dismantling, storage and maintenance of ERS." In regards to the above please confirm that training mentioned in clauses 22.8.1 and 22.8.2 is the same training.	Confirmed. In addition, refer to item 142 of this clarification.