

## RURAL ELECTRIFICATION AND RENEWABLE ENERGY CORPORATION

## RFB NO: KE-REA-373014-CW-RFB: DESIGN, SUPPLY, INSTALLATION AND COMMISSIONING OF SOLAR PHOTOVOLTAIC GENERATION PLANTS WITH ASSOCIATED POWER DISTRIBUTION NETWORK (MINI-GRIDS) IN TURKANA, MARSABIT, SAMBURU & ISIOLO COUNTIES IN KENYA WITH 7 YEARS OPERATIONS AND MAINTENANCE (O&M) SERVICES

## **CLARIFICATIONS 001 TO THE BIDDING DOCUMENT**

S. No.	Reference	Questions /Queries	Answers /Clarifications
1		Missing Electrical and Civil Drawings: Drawings are mentioned in Volume II document (Employer's Requirements, Technical	Please refer to Addendum No. 2.
		Specifications and Drawings), but they are not found.	The provisional PDN drawings have been provided on <a href="https://www.rerec.co.ke">www.rerec.co.ke</a> only for purposes of uniformity of units.  A firm design will be produced by the
			successful bidder at the detailed design stage for Project Engineer's approval
2		Clarify the step up and step down transformer sizes	Refer to Addendum No.2
3		Could you please share the provisional drawings for PDN?	Please refer to Addendum No. 2.  (The provisional PDN drawings have been provided on <a href="https://www.rerec.co.ke">www.rerec.co.ke</a> only for purposes of uniformity of units.)
4		Is there any BOQ for Civil work?	The BOQs for Civil Works are in Schedule No. 4 (C)

S. No.	Reference	Questions /Queries	Answers /Clarifications
5	Personnel qualifications on the table in Volume I;	RFB: KE-REA-373014-CW-RFB in page 65 which is different as the one on page 137 Volume I	Refer to Addendum No.2
6	Volume II; Total number of customers in Parts of Turkana County-(Turkana West & Turkana North Constituencies),	In page 12 you have indicated as 2,242 No. of customers and in page 15, the total number of customers is 2,195 No	The customer connections No. is 2,242. Refer to Addendum No.2 on connections for Oropoi Mini-Grid.
7		If a parent company is registered in Kenya and it has its 100% subsidiary company (SPV) in Kenya also which is doing the business of Mini Grids. Can the strength of both these companies jointly be considered to qualify for any lot?	A subsidiary is not a JV partner. Provide the requirements for the entity whose name appears on the Letter of Bid
8		Bid security — For this tender is it acceptable if the Bid security is provided from Micro finance institutions domiciled in Kenya.	Not acceptable. Refer to ITB 20.1 on Bid Security A bank guarantee from an eligible country.
9	Forced Labor Performance Declaration Form	Kindly clarify if this form is to be filled in for just the solar panel manufacturers or for all the manufacturers?	This should be provided for all major equipment Refer to ITB 11.1 (j) of the principal bidding document
10	Form CON-1: While the bidding document has form Con-2 & Form Con-3. Form Con-1 is missing.	Kindly clarify if this missing form is required for this tender.	The form CON-1 is not part of this bidding document
11	Bid Security amount - the evaluation criteria states in 1.3 Multiple Contracts (ITB 35.6) that a single bidder can only be awarded maximum of two Lots . However since ITB 1.1 allows for bidders to bid for as many lots as they wish	There being a restriction of the number of lots to be awarded we request that you allow the bidders to only give bonds for the highest two tenders they wish to bid for .	Not allowed. Refer to ITB 20.1 on Bid security.

S. No.	Reference	Questions /Queries	Answers /Clarifications
12	Customer Connection liquidated damages: We refer to PCC 9.1 states "Connections to be made to Consumers immediately after Commissioning of SPGP and PDN. The Contractor shall commission SPGP and PDN and connect 100% of customers within the twenty-four months, otherwise applicable Liquidated Damages apply "while in Employers requirement 1.2.8 states "Collection of connection charges from consumers and ensure revenue collection from consumers on behalf of KPLC (including Disconnection and reconnection) and its deposit to Govt./KPLC Account as per KPLC Requirements/specifications "	· · · · · · · · · · · · · · · · · · ·	The targeted number of customers should be attained through the various options indicated in the issued bidding document
13	Collection of customer meters – to estimate the logistic costs associated with meter collection	Please clarify the KPLC stores from which we will be collecting pre-paid meters for every lot.  Additionally, please clarify how many meters the contractor should expect to collect from KPLC at each instance	Nearest KPLC County HQ Office.  Refer to Volume II (Part 2), Section VII of the issued bidding document for target customer connections/numbers
14	Employers requirements 17.1 & 17.6:	Please clarify whether the vehicle referenced in will be returned to the employer at the end of the project?	The vehicle remains the property of the Contractor at the end of the contract.

S. No.	Reference	Questions /Queries	Answers /Clarifications
	Facilities for the Employer -Vehicle		Please refer to Volume II, Section VII, Sub Section 17.1,17.6 and Schedule No. 4 (D)
15	Facilities for the Employer -Vehicle Fuel.	Please clarify whether the vehicle referenced in Employers requirements 17.1 & 17.6 please clarify what is the monthly fuel provision should be made for this vehicle	Estimate to be site specific and based on condition, consumption of the vehicle taking into account return trips from Nairobi
16	Employers requirements 17.1  Communication facilities for site supervision	Please clarify what communication facilities the contractor is required to provide; Is it walkie talkies, mobile phones, air time	Refer to Addendum No. 2
17		Wayleaves - Please clarify whether the contractor is expected to provide for both MV and LV wayleaves?	Yes, Refer to Volume II, Section VII (ERTS) Clause 7.1.4 and 7.6.7
18	Customer number target	Customer number target - Is the liquidated damages referenced in PCC 9.1 based on customer numbers stipulated in employers requirements clause 1.1 or based on the customer targets after the detailed design done after award	The customer connections targets are as captured in the issued bidding document
19	Fuel for the Diesel Generator	Please clarify whether it is the contractor who will provide the fuel for the generator during the O&M period.	KPLC shall bear the cost of fuel during the O&M period as described in Volume II, Section VII, Clause 1.2.10
20		Time Extension – in view of the rigorous data collection during sites we request you extend the tender by two more weeks to enable us incorporate the data in our bids	Refer to <b>Addendum No.</b> 1
21		Can REREC provide contact person's details in the project sites for bidders to contact during visit	Yes, Refer to Addendum No. 2, Appendix 1
22		Documents submitted in different language, does REREC have a requirement on who should translate the document	Refer to ITB 10.1, Language of Bid is English.

S. No.	Reference	Questions /Queries	Answers /Clarifications
23	Request for bid document, pg 58	Evidence of financial resources. Audited financial statement and letter of credit. Can the letter of credit be obtained from a micro finance	No.
24		Withholding tax should be included in quotation	Withholding Tax to be included in all schedules
25		Is there Specification for warehouse for materials procured by the contractor	Tenderers to provide storage locations at project sites for materials per lot during the installation period
26		Provide the number of staff who will be attending FAT and detail the cost that the contract should cater for	Refer to Addendum No. 2
27		A bidder submitting their bid as a subsidiary can the experience of the subsidiary be sufficient.  The tender document does not allow for aggregation of experience of JV partners, can this be considered this	A subsidiary is not a JV.  For JV partners, refer to Section III,  Evaluation and Qualification Criteria
28		Turnover period for five years should be reviewed since 3yrs years were affected during covid. Consider revision to 10 years. Allow the Bidder to pick the best three	Refer to Addendum No. 2
29		Specifications have been provided for PV and battery inverter, if a hybrid inverter, meets both will that be considered	Inverter configurations and topologies to be provided as per Employer's Requirements and Technical Specifications (Volume II, Section VII)
30		What is the expected DOD used to conduct the design	80%, Refer to ERTS 1.4.4
31		Clarify on discrepancy on BOQ for Lot 4 and 6	Refer to Addendum No. 2
32		Pre pay meter and MCBs will be provided by REREC, this is not consistent with the BOQ requirements	Pre pay meter and MCBs to be provided by KPLC.
33		Confirm the customers being targeted	Refer to Addendum No. 2
34		Clause 34, world bank appendix 2 on domestic preference.	There are no domestic preferences in this tender

S. No.	Reference	Questions /Queries	Answers /Clarifications
35		Vol 2 Sec 7 – missing specification on 11kV circuit breaker and pole mounted polycarbonate meter box instead of metallic meter box	Refer to Addendum No.2
36		Collection of connection charges, the criteria for this collection	Refer to Addendum No. 2
37		7 year period for operation and maintenance, the formula, indices changes and this will affect the rate pg 285	Bidder to quote for O&M as required Refer to ITB 17.7
38		Are bidders required to provide separate documents for ESMP	A bidder is expected to submit 1No. ESMP document per lot. A single ESMP document is expected to include Environmental & Social components as per the link that was provided
39	Pg 41 ITB 21.1 Format and Signing of Bid	"The Bidder shall enclose the original and all copies of the bid, in separate sealed envelopes, duly marking the envelopes as "ORIGINAL", "COPY 1", "COPY 2," and a Soft Copy in a Flash Disk." Please clarify does this means that in addition to the original of the Bid, two copies are requested?	Yes  Submit one original, two copies (Copy 1 & Copy 2) and a soft copy in a flash disk
40	Pg 48 1.3 Multiple Contracts (ITB 35.6)	Please clarify if the Bidder bid for more than 1 lot, since the qualification document are same, can he combine the bidding documents for submission?	Each lot shall be submitted as a separate document with its own relevant documentation
41	VOLUME II-APPENDIX 1 – LOCATIONAL DETAILS OF SITES	We noticed that the client listed the specific geographical location of each construction site in this part, but these coordinates cannot be found on Google map. Could you please provide the standard coordinates on Google Map?	The Coordinates provided can be converted to any format required, KML format also available on www.rerec.co.ke
42	VOLUME II-1.2 Scope and characteristics of Solar Photovoltaic (SPV) mini grids	"Collection of connection charges from consumers and ensure revenue collection from consumers on behalf of KPLC" We have noticed that the contractor needs to charge electricity customers on behalf of the owner. Is it necessary for the	Refer to Addendum No. 2

S. No.	Reference	Questions /Queries	Answers /Clarifications
		contractor to provide a charging platform? If so, please clarify the requirements of the charging platform	
43	<ul> <li>7.2.3 Double Pole mounted transformer (Overhead) Substa materials along with protection and complete interconnection.</li> <li>7.2.4 11 kV Circuit breaker, 11 kV Isolators, CT, PT, DO requirements/specifications.</li> </ul>	—On the PDINS. But they are specifications are missing on the	They are required.  Refer to Addendum No. 2
	B5 Step up Transformer  37 415V/11kV 100kVA transformer  All system components for interconnecting the inverters and the 11kv distribution transformers, including but not limited to: panelboards, busbars, switchgears, air break switch and structure, 11kv solid links, surge diverters, mounting structures for the surge diverters, underground cabling, conduits, cables and cable trays, grounding electrodes, grounding conductors, lightning arrestors, lightning mast galvanized steel structure and associated earthing, insulators, meters, sensors, concrete plinth subioreloised mounting structures for the HT neutral bushing and any other fixtures required for a safety, reliability, and compiliance with all relevant local and international codes and standards at the time of installation.		
44		Connection Charges: We need to understand the process for collecting connection charges from consumers. Are there specific rates, procedures, or documentation that we need to follow?	Refer to Addendum No. 2
45		Revenue Collection: How does the revenue collection process work? Are there particular methods of payment, records to maintain, or deadlines we need to adhere to?	Refer to Addendum No. 2
46		Disconnection and Reconnection: What are the circumstances under which disconnection and reconnection of consumers' services may be required? Are there specific protocols or guidelines to follow when performing these actions?	Refer to Addendum No. 2
47		Deposit to Govt./KPLC Account: Could we have more details about the procedures for depositing collected revenue into the	Refer to Addendum No. 2

S. No.	Reference	Questions /Queries	Answers /Clarifications
		Government or KPLC account? Are there specific forms or	
		reports that need to accompany these deposits?	

48	KE-REA-373014-CW-RFB VOLUME_IRFB_Minigrids & VOLUME II - EMPLOYERS REQUIREMENTS TECHNICAL SPECIFICATIONS_MINIGRIDS KOSAP REREC	In Volume I, Section II - Bid Data Sheet, under ITB 11.1(j), the table below the 9th point (Page 38) indicates that the quantity of major equipment is 8. However, in Volume II, Appendix 2 - Guaranteed Technical Particulars (GTP) (Page 169), the quantity of major equipment is shown as 10. Could you please clarify the correct quantity of major equipment required for this project?	Refer to Addendum No. 2
		Decision of dispect contracts, and Furchuse	
49	KE-REA-373014-CW-RFB VOLUME II - EMPLOYERS REQUIREMENTS TECHNICAL SPECIFICATIONS_MINIGRIDS KOSAP REREC	In VOLUME II , Appendix 2 - Guaranteed Technical Particulars (GTP) of the second volume, there is a reference to the GTPs for major items of PDN (Page 175).  However, we could not find one of the files mentioned, specifically the GTPs for "10) LINE INSULATORS  (11KV AND LV)" with the document code KPLC/3CB/TSP/04/017/2.  Please kindly provide us with the document KPLC/3CB/TSP/04/017/2.	Document No. KPLC/3CB/TSP/04/017/2 is attached in Volume IV and referenced as KP1/6C.1/13/TSP/04/017/2

		KI KI	er to sp LC1/3C LC/3CF L/3CB/ LC1/3C ume IV
50	KE-REA-373014-CW-RFB-CWRFB VOLUME III SCHEDULE OF RATES of LOT 1 - TURKANA NORTH & WEST	We can't find the content of the withholding tax in bidding docs from Volume I to volume IV, does withholding tax applicable for Schedule 3/4/5/6 in Volu III Schedule of Rates and Prices? If so, does it need to included in the quotation? Or is the tax listed separate without considering into bid results?	he tax ne be

51		As the FAT cost of the main parts shall be borne by contractor, please inform us of the specific requirements regarding the number of visitors, frequency of visits, duration of each visit, and detailed specifications for transportation, accommodation, allowances, etc.	Refer to Addendum No.2
52	KE-REA-373014-CW-RFB Volume IV Technical Specifications Document REREC_01082023	In Volume IV, document KP1/13D/13/TSP/10/001-02, section 4.14.2 (Page 31) refers to document KP1/3CB/08/001. However, we were unable to locate this document in Volume IV. Could you please provide us with the document KP1/3CB/08/001?  4.14. Transformer Oil  4.14.1. Cooling of the transformer shall be by natural circulation of oil and natural air (ONAN). The transformer shall be supplied filled with new oil.  4.14.2. The oil shall be new, unused and shall comply with all the requirements of IEC 60422:2013 (class 1: un-inhibited oil) and as per current KPLC KP1/3CB/08/001 (Shall be attached during tender).	
53	schedule 4-D-others:  1. it requests "Offices facilities: Provide a furnished site office complete with communication facilities (Laptop, internet, printer and stationery) for 6 sites.  2. It requests "Provision of communication facilities for the employer" for one (1) LOT only.	Whether is one (1) site office for one(1) site (for LOT 1, six(6) sites for example), or one site office for one (1) LOT, i.e., for six(6) sites?  We understand that this site office is for one (1) LOT, rather than for each site, i.e. six (6) sites. Referred to point 1 and point 2, we think that it is not very consistent.	
54		Is it necessary to have "Laptop, internet, printer and stationery" for each site?	YES

55		Advise if the below licenses are required at the point of submission of the bid;  • Energy and Petroleum Regulatory Authority (EPRA)  • National Construction Authority (NCA)	As per note in ITB 11.1(j)  Note: Upon award of contract, the contractor shall be required to meet the class registration requirements for Energy and Petroleum Regulatory Authority (EPRA) and National Construction Authority (NCA)
56	Page 43, Volume 1: Functional Guarantees: stated "Functional Guarantees of the Facilities: No Page 48, Volume 1 "Functional Guarantees of the Facilities-N/A-The minimum (or maximum) requirements stated in the Specification for functional guarantees required in the Specification are: N/A"  Functional Guarantee form attached in page 99, Volume 1 for the bidder to fill.	While there is a In the warranty form page 122, Volume 1 you have stated "Section III — Evaluation and Qualification Criteria Clause 1.2c —Functional Guarantees of the Facilities;" which you had stated is not applicable on page 48 & have been left blank on page 294 volume 1	Functional guarantees are not required in this bid.  Bidders may however provide the information through form func

57	Technical Specifications, Volume	The minimum capacity of battery energy storage refers to: the	The minimum capacity of battery
	II of Bidding Documents, page P5, Form 2-	nameplate capacity of the DC side of the bidding battery	energy storage refers to the actual
	Form 7—The minimum	energy storage system or the actual available capacity of the	available/usable capacity of the AC
	capacity of the battery energy storage system	AC side when the system is initially installed or the remaining	side when the system is initially
	is required in the table	capacity after 10 years or 3000 charge and discharge cycles	installed.
		to reach this value? Whether to consider the factors affecting	For DOD refer to Vol II clause 4.6.1
		the recommended depth of charge and discharge?	
58		Whether the estimated daily energy demand and peak demand	YES
		in the tables are the design values after considering the load	
		growth in the next 5 years.	
59	Technical Specifications, Volume II of	The bidding document requires that the charge and discharge	As per Vol II 4.6.1 (i) batteries
	Bidding Documents, page P37, 4.6.1:	ratio of the battery energy storage system is 1/4C, but some	should be capable of at least C/4
		of the recommended inverter power of battery energy storage	charge and discharge rate. The battery
		and battery energy storage system capacity in the	capacities provided are minimum
		configuration tables on page P.15 have exceeded 1/4C. Does	useable capacities.
		the bidder need to reduce the inverter power of the energy	Contractor will be required to provide
		storage or increase the capacity of the energy storage system?	proposed SPGP designs and drawings
			for employer's project engineer's
			approval as per Vol II clause 4.6.12
			in the detailed design stage
60	Technical Specifications, Volume	The tender documents require that BESS would have (1) one	The DG shall provide support to the
	II of Bidding Documents, page	day autonomy for designed demand for mini-grids:	Solar plant and BESS to meet the
	P.9, 1.4.5	However, for example, Lot 1-1 in Table 2 on page 5 shows	consumer load requirements.
		that the average daily energy demand is 562kWh, but the	The Bidder to use the capacities
		battery energy storage capacity is 438kWh, which cannot	provided for uniformity in bidding. At
		satisfy (1) one day autonomy. Whether the bidder needs to	the detailed design stage, contractor
		increase the battery energy storage capacity of the	shall provide a firm design for review.
		corresponding site to meet the requirement of (1) one day	Refer to Vol II clause 1.4.2 and
		autonomy.	1.4.3 and 1.4.13

61	Technical Specifications, Volume II of Bid Documents, page P38,	The bid documents require a minimum voltage of 48V for the energy storage system. Does this minimum voltage refers	Refer to Addendum No.2
	4.6.7:	to the battery module, battery pack or battery cluster	Yes, the DC working voltage of the
		voltage? Can the DC working voltage of the energy storage system in the bidding scheme be greater than 48V?	BESS can be greater than 48V.
62	Technical Specifications, Volume II of Bidding Documents, page P38, 4.6.10:	The listed information to be provided in the bid document or after winning the bid?	The listed information should be provided in the bid. Refer to Vol II Appendix 2 Guaranteed Technical Particulars
63	Technical Specifications, Volume II of Bid Documents, page P42, 4.8.5 and 4.10.1:	Bid Document 4.8.5 requires the ground installation of medium and low voltage AC distribution equipment, and tender Document 4.10.1 requires the transformer to be installed on the column in accordance with the Volume IV of Bidding Document. Can the transformer and distribution equipment be installed on the ground or column in a unified manner?	Refer to Vol II Clause 7.8.1&7.8.2
64		Whether will the capacity be chosen according the capacities defined in the "Specification" of VOL IV? Can we choose the capacity of the transformer as we can find in the market?	Refer to Addendum No.2
65		Can the medium and low voltage distribution equipment and transformers be integrated into the outdoor box (container-type transformer) and installed on the concrete foundation?	Refer to Vol II Clause 7.8.1877.8.2
66		If they can be installed on the ground, can the dry-type transformer be chosen as we think it has higher reliability and small dimension?	

67	Technical Specifications, Volume	For the requirements of the control room, it is recommended	Refer to Vol II clause 5.2.1
	II of Bid Documents, page P77, 5.2:	to use the 40-foot container scheme, and the energy storage system and other equipment are arranged in the container. Some sites with large energy storage capacity may have a 40-foot container which is not enough to put down the entire energy storage system or can only put down the energy storage system. The distribution equipment needs to be arranged in another container.  So, must the additional container be added in the unit of the standard 40-foot? Or can choose the dimension on demand? It means the dimension of container is net standard. Is it permissible?	The size of additional control room container shall be determined by the demand of the site and will be subject to approval by the employer at the detailed design stage
68	Technical Specifications, Volume II of Bid Documents, page P153, Appendix 1	•	The provided coordinates are Eastings and Northings. KML format also available on www.rerec.co.ke
69	Compensation of successful bidder during O&M period	Kindly clarify on how you intend to compensate successful bidders using the percentage (11.5% AND 18% applied on the contract price you have given in the bidding document for 7 years	The contractor is expected to project the total O&M cost for the seven years. This will form the O&M contract price. To avoid front loading the contract, the amount will be prorated across the 7 years using the percentages provided in schedule of rates and prices schedule 6.

70	Solar PV module type: In vol II employer's requirement on the technical specification for SPV Crystalline module you have not specified whether N-type or Ptype		Refer to Vol II appendix 2: Guaranteed Technical Particulars and Vol II clause 4.1 Bidders should aim for high efficiency and performance and least light induced degradation as per the GTPs provided.
71	Domestic preference; According to the bid document section 1 of the bidding document sub section E clause 34.1 there will be no domestic preference but according to World Bank procurement guidelines appendix 2 they allow for 7.5% preference on domestic contractors	Clarify on this issue, if so then provide an agreement between REREC and World Bank that there will be no such preference	No margin of domestic preference shall apply
72		Is it acceptable to use spiral steel pile foundation in soft soil?  After pre-drilling is used in the harder locations, the spiral piles are poured together with concrete. For rock geology we can use concrete strips	The design of foundation to be used shall be informed by geotechnical engineering reports.  This being a turnkey contract, the contractor shall submit proposed designs which will be subject to approval by the employer prior to implementation at the detailed design stage. Refer to schedule of rates and prices schedule 4 (C)
73		Street lights mounted on 10 meter high utility poles should be fixed at appropriate locations around the SPGP site boundaries/fences. Considering the possible shading caused by street lights to photovoltaic modules, is it possible to adopt 4m street lights?	Not possible.  Refer to clause 2.1.2.21 Streetlights mounted on 10meter-high pole to be fixed at suitable locations all around boundary/ fencing in SPGP site.

74		olar street light, instead of municipal street parameter requirements?	No. Refer to Vol II clause 7.8.28
75	in the container, and needed to be installed	nentioned that the generator was installed d also mentioned that the diesel generator ed with fences and roofs. the container, does it mean fence and ore?	Refer to Addendum No.2
76		nipping container home as guard room Whose life span can be 20-30 years.	Refer to Vol II clause 2.1.2.23,
	Shipping container I	home20-30 years' service life	Vol II clause 4.18.1.6  and Vol. II clause 5.4.1 A guard  house with a provision of a guard  room and a separate lockable store  room located at the main gate shall be
			constructed. The guard house shall be of Masonry. The guard house design shall be subject to employer's approval

	Ordinary prefabricated houseService life 3-5 years	
77	It is mentioned in the tender that the fuel supply during operation and maintenance will be carried out by REREC according to the schedule negotiated with the successful bidder. Who will pay for the fuel costs during operation and maintenance?	Refer to Addendum No.2
78	Because the capacity of the photovoltaic plant area of this project is small, is it necessary to provide the fence of the photovoltaic plant area? Can we only provide the fence for the entire power plant?	Provide as required.  Refer to Vol II clause 5.31.1
79	It is mentioned in the tender that a 10m³water storage tank will be built. Is it necessary to drill wells for the water supply in the factory area? If connected to local municipal water, is the municipal water supply adequate? Who will afford the water fee during the 7-year operation and maintenance period?	The bidder is expected to have done his own survey to get to know the available water sources and incorporate it in their bidding prices.

80	The bidding document mentions the construction of a 10m <sup>3</sup> water storage tank. Is it necessary to lay water pipes to the photovoltaic field area for solar panel cleaning?	This being a turnkey contract, the contractor will be required to provide a methodology for cleaning the panels which will be subject to the employer's approval.
81	In non-high-risk areas, do gates, offices, control rooms, energy storage rooms, and guard rooms need monitoring equipment?	Refer to clause 5.32.2 CCTV equipment shall only be provided for the 3 sites in high security risk areas. All other security measures shall apply to all the sites
82	Does it involve the relocation and compatibility of existing diesel engines?	These are "green- field" sites
83	It is mentioned in the tender that the meter and MCB will be provided by the project owner. Who will provide the meter box and MCB box?	Bidder to provide for this.  Refer to schedule of rates and prices, schedule 1 and 2 item B2
84	Whether to accept slope-based PV site level for some uneven sites?	This being a turnkey contract, the contractor will be required to provide a design for the solar module mounting structure which will be subject to the employer's approval at the detailed design stage
85	The bid mentioned that a 2000L oil tank will be provided for diesel engine fuel supply. Does diesel engine need a daily fuel tank?	

86	If the DC side of the photovoltaic inverter has DC switches, voltage and current monitoring and lightning protection, is it necessary to provide a DC combiner box?  **Refer to Vol II clause 4.4.2**  **Refer to
87	The bidding document mentions that the photovoltaic inclination angle is 10-15 degrees, but due to the low dimension of the project, 10° is not the best inclination angle according to the PV system simulation. Do you accept the inclination angle adjustment, such as 5 degrees?
88	Regarding the PV size of Kipsing in Isiolo of Lot-6, in table 7 of page 7, it mentioned 100kWp, but in the SCHEDULE OF RATES AND PRICES of lot-6, it described as 120 kWp. We would like to know which size is correct.

89	2.5 Contractor's Representative and Other Key Personnel per Lot.	As its appear on page 65 there is a mismatch on page 137 of the Volume 1 Bidding documents. Kindly clarify which to follow,	
90		Since the maximum award is two, thus required only two sets of separate Key personnel.	Each bid (and lot) stands on its own.
91		Technical specification for Step- Up transformer is missing. (Kindly advice or provide	Please refer to Volume IV (Technical Specifications for Various Items in the Power Distribution Network), Document Ref. No. KPI/13D/13/TSP/10/001-02
92	Bid document submission.	We intend to participate on the six lots and do hereby	Please submit documentation for each
		request that we submit one bid document with different	bid separately, ensuring completeness
		price schedule, bid bond (lot wise) since there other	of the document.
		supporting document are the same.	
93		We are bidding for multiple lots in the tender. Please allow	Please submit documentation for each
		bidders to submit one technical document and include in it,	bid separately, ensuring completeness
		the Price Schedules and Letters of Bid for all the Lots	of the document.
		tendered. This will allow bidders to avoid a lot of	
		documentation in submitting each lot separately	
94		Given that the bidder can only be awarded a maximum of	Not allowed
		two lots, please allow bidders to submit one set of personnel	
		and one set of tools / equipment to cover all lots tendered	
95		We are requesting for clarification on the serialization of the bid document. Is it a requirement?	YES. Serialization is required for ease of reference.
96	VOLUME_II_EMPLOYERS_REQ UIRMENTS_TECHNICAL_SPECI FICATIONS_MINIGRIDS_KOSAP_REREC. Table 14: Minimum Warranty Requirement for Major Equipment.	Except the Major Equipment, how long is the warranty requirement for other equipment?	Adopt the conventional warranty for the respective equipment, otherwise minimum 1 Year.

97	27.2 The Defect Liability Period shall be five hundred and forty (540) days from the date of Completion of the Facilities (or any part thereof) or one year from the date of Operational Acceptance of the Facilities (or any part thereof), whichever first occurs, unless specified otherwise in the PCC pursuant to GCC Sub-Clause 27.10.		The Defect Liability period shall remain as stated in GCC 27.2.  Bidders to provide warranty for the major equipment as tabulated in Volume II, Appendix 2 - Guaranteed Technical Particulars (GTP)
98	4.18.1.9.11 Heavy-duty replaceable dry element air cleaner with restriction indicator.	Engine supplier do not propose the heavy-duty cleaner for this project, it is mostly used in very dusty environment, eg, mines.  Can we provide standard cleaner? It is suitable for site condition.	The sites are located in dusty areas. Adhere to the specification.
99	4.18.1.11.6 Generator Control Functions (iii) The voltage regulator shall include adjustments for gain, damping, and frequency roll- off. Adjustments shall be broad range, and made via digital raise-lower switches, with an alphanumeric LED readout to indicate setting level	Rated current for gen-set is not high in this project, so the ACB is not necessary. MCCB (Molded Case Circuit Breaker ) + Electric operating mechanism can be used for GCB, and perform the synchronization closing, opening and breaking when electrical fault happens.	The ACBs are meant to reinforce 3 tier protection for the power system in addition to the MCCBs.

100	4.6.7 System voltage of 48V. All equipment to have matching voltages (Batteries, Battery inverter etc)	In Volume II 4.6.7 for KOSAP KPLC, it is described as "4.6.7 Minimum system voltage of 48V. Equipment to have matching voltages (Batteries, Battery inverter)". But in In Volume II 4.6.7 for KOSAP REREC, it is described as "4.6.7 System voltage of 48V. All equipment to have matching voltages (Batteries, Battery inverter etc)". We want to confirm if the system voltage is a minimum of 48V or exactly 48V. We suggest the system voltage is a minimum of 48V, and we can provide a more competitive solution accordingly.	Yes. Refer to Addendum No.2
101	4.7.15 Degree of protection of the indoor inverter shall be at least IP-54 and that of outdoor at least IP65.	Is IP20 acceptable for indoor inverter installations? Generally, IP20 is sufficient for indoor installations.	No. Refer to ERTS 4.7.15 "Degree of protection of the indoor inverter shall be at least IP-54 and that of outdoor at least IP-65"
102	Table 8: List of Standards Solar PV Inverters / Battery Inverters	Table 8: List of Standards Solar PV Inverters / Battery Inverters describes many standards for Solar PV Inverters and Battery Inverters that must be complied with. We suppose some of these standards apply to solar inverters, while others are specific to battery inverters. So, which standards from the table should the battery inverter comply with — some of them or all of them?	The battery inverter should comply with the relevant standards.

_RFB_Minigrids &  VOLUME II - EMPLOYERS REQUIREMENTS TECHNICAL SPECIFICATIONS_MINIGRIDS KOSAP REREC	In Volume I, Section II - Bid Data Sheet, under ITB 11.1(j), the table below the 9th point (Page 38) indicates that the quantity of major equipment is 8. However, in Volume II, Appendix 2 - Guaranteed Technical Particulars (GTP) (Page 169), the quantity of major equipment is shown as 10. Could you please clarify the correct quantity of major equipment required for this project?    Description   Descriptio	
104 KE-REA-373014-CW-RFB VOLUME II - EMPLOYERS REQUIREMENTS TECHNICAL  105 SPECIFICATIONS_MINIGRIDS KOSAP REREC	In VOLUME II, Appendix 2 - Guaranteed Technical Particulars (GTP) of the second volume, there is a reference to the GTPs for major items of PDN (Page 175). However, we could not find one of the files mentioned, specifically the GTPs for "10) LINE INSULATORS (11KV AND LV)" with the document code KPLC/3CB/TSP/04/017/2. Please kindly provide us with the document KPLC/3CB/TSP/04/017/2.    10) LINE INSULATORS (11KV AND LV)   Refer to specification document KPLC/3CB/TSP/04/017/2, KPLC/3CB/TSP/04/017/2, KPL/3CB/TSP/04/017/2, KPL/3CB/TSP/04/017/2, KPL/3CB/TSP/04/017/3, AND LV)   Refer to specification document KPLC/3CB/TSP/04/017/3, KPL/3CB/TSP/04/017/3, KPL/3CB/TSP/	

106	KE-REA-373014-CW-RFB-CWRFB VOLUME III SCHEDULE OF RATES of LOT 1 - TURKANA NORTH & WEST	About the withholding tax:  Does the withholding tax applicable for Schedule 3/4/5/6 in Volume III Schedule of Rates and Prices?  If so, does it need to be included in the quotation? Or is the tax listed separately without considering into bid results?	All schedules subject to With holding tax
107	KE-REA-373014-CW-RFB-CWRFB VOLUME III SCHEDULE OF RATES of LOT 1 - TURKANA NORTH & WEST	For our quotation, we need to know more about the FAT, As the FAT cost of the main parts shall be borne by contractor, please inform us of the specific requirements regarding the number of visitors, frequency of visits, duration of each visit, and detailed specifications for transportation, accommodation, allowances, etc.	Refer to Addendum No.2
108	KE-REA-373014-CW-RFB Volume IV Technical Specifications Document REREC_01082023	In Volume IV, document KP1/13D/13/TSP/10/001-02, section 4.14.2 (Page 31) refers to document KP1/3CB/08/001. However, we were unable to locate this document in Volume IV. Could you please provide us with the document KP1/3CB/08/001?  4.14. Transformer Oil 4.14.1. Cooling of the transformer shall be by natural circulation of oil and natural circulation (ONAN). The transformer shall be supplied filled with new oil.  4.14.2. The oil shall be new, unused and shall comply with all the requirements of IEC 60 (IEC 60422:2013 (class 1: un-inhibited oil) and as per current KPLC Specific (KP1/3CB/08/001) (Shall be attached during tender).	2
109	PDN schedule of rates and prices  (B1 -14 LV concrete poles)	Considering the 40 m span and the length of LV network given for the sites ( <b>Volume 2</b> ), we have noticed that the quantities of poles indicated in the schedule of rates and prices are under quoted. Please clarify on this.	Bidders to use quantities as provided in Schedules 1 and 2
110	PDN schedule of rates and prices  (B3 -28,29 MV concrete poles)	Considering the 100m span and the length of MV network given for the sites (Volume 2), we have noticed that the quantities of poles indicated in the schedule of rates and prices are under quoted. Please clarify on this.	Bidders to use quantities as provided in Schedules 1 and 2

111	PDN schedule of rates and prices (B 2 - 20)	For all the sites, 3 phase customers are available but there is no provision of 3 phase 4 wire (100sqmm AA bare conductor). Only single phase 2 wire line conductor (50 sq. mm AA bare conductor) is mentioned.  Please clarify if the 100sqmm AA bare conductor should be included in the price schedule. Otherwise, how will 3 phase customers be connected with no provision of the 3 phase distribution network?	Refer to Schedule 1 and 2, Item B (PDN distribution network), Part B1 (3-phase and single phase LV Distribution Line)  The quantity provided in the schedules is the LV Network route length. Bidders to quote for conductor length (2-wire line).
112	PDN schedule of rates and prices (B 1 - 16)	For most of the sites, the conductor lengths given are shorter as compared to the length of the networks. For instance Lot 1 site 1 (KAIKOR) with an LV network of 35.15 Km, the 2 wire 50 sq mm given is 35 Km.  Please clarify if whether the 35 Km is for 2 wires (35KM*2)  Has the sag been considered?	Bidders to use quantities as provided in Schedules 1 and 2  The length provided is the LV Network route length. Bidders to quote for conductor length (2wire line).  YES. Sag has been considered.
113	PDN schedule of rates and prices (B 1 - 16)	For some sites, the conductor lengths given are longer compared to the length of the networks. For instance Lot 1 site 5 (NACHUKUI), with an LV network of 3.22 Km, the 2 wire 50 sq. mm given is 13 Km. Kindly confirm and clarify on this.	Bidders to use quantities as provided in Schedules 1 and 2

114	PDN schedule of rates and prices (B 3 - 31)	For some sites, the conductor lengths given is equal to the length of the MV network. For instance Lot 1 site 1 (KAIKOR), with an MV network of 4.83 Km, the 3 wire 75 sq mm given is 4.83 Km. Kindly confirm and clarify on these lengths. Should the conductor length be 4.83*3?	The length provided is the route length. Bidders to quote for conductor length (3-wire line).  YES. Sag has been considered.
115	Contractor's Representative and other Key Personnel per lot  (VOL 1- 2.5 No. 4)  PG NO. 65	You have indicated that the <b>Design engineer</b> should possess EPRA T3 License. You have also indicated that the <b>Resident Solar PV Specialist</b> should also possess EPRA T3 License. We wish to propose that only the resident solar PV specialist should be T3 Licensed. Please Confirm and clarify on this.	Design Engineer qualifications remain as indicated.
116	Suggestion: In order to give a more accurate PDN BOQ quote, can you kindly consider if we can quote the materials in terms of quantities per kilometer?		Bidders to use materials and quantities as provided in the Schedules.
117	In appendix II the Technical specification	Required is for 10mm2 Single Phase concentric Al Cable while the Price Schedule under B2 item 21 is mentioned as Service cable 16mm2 PVC Concentric Al cable. Which one are we to procure for this project?	Adopt service cable as indicated in the Price Schedules 16mm <sup>2</sup> PVC Insulated Single Phase Concentric Aluminium as indicated in the schedules.
118		For the grid isolation and harmonic suppressor transformers (isolating transformers) specifications are not provided. Kindly provide.	Bidders to make reference to the standards referenced for inverter interfaced generation, especially IEC62909-1&2 and the ERTS document for optimal system operation; the provisions of the Kenya Grid Code and ensure THD limits are not violated and supply is at the

		desired level of power quality (voltage and frequency).
119	The specifications for meters provided are more than 5 years and not the current meters. Kindly provide	The pre-paid meters will be provided by KPLC
120	For all stations where the stations are located, the Insolation levels are critical in our designs. Kindly provide these for optimum designs.	Bidders are expected to use the secondary data provided (on system and component sizing) for purposes of uniform bidding
		The most advantageous bid will, at the detailed design stage, acquire all such data for and by themselves.