Kenya Power

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

Our Ref: KP1/6A.1/PT/2/21/A76 **5th November, 2021**

Dear Sir/ Madam

CLARIFICATION NO. 1 FOR TENDER NO: KP1/6A.1/PT/2/21/A76 PROCUREMENT OF DESIGN, SUPPLY, INSTALLATION AND COMMISSIONING OF STAND-ALONE SOLAR PHOTOVOLTAIC SYSTEMS WITH BATTERY ENERGY STORAGE FOR COMMUNITY FACILITIES IN TURKANA, WEST POKOT, ISIOLO, MARSABIT, SAMBURU, MANDERA, WAJIR, GARISSA, LAMU, TANA RIVER, KILIFI, KWALE, TAITA TAVETA AND NAROK COUNTIES IN KENYA WITH 7 YEARS O&M SERVICES DATED 23RD SEPTEMBER, 2021.

CLARIFICATION TO BID DOCUMENT

The following responses are made to clarifications sought on various issues in the bidding document for procurement of Design, Supply, Installation and Commissioning of stand-alone solar photovoltaic systems with battery energy storage for community facilities in Turkana, West Pokot, Isiolo, Marsabit, Samburu, Mandera, Wajir, Garissa, Lamu, Tana River, Kilifi, Kwale, Taita Taveta and Narok Counties in Kenya with 7 years O&M services.

No.	Bidder Query/ comment	KPLC Response
1.	The General experience and Specific experience requirements set out are too high if confined specifically to Solar Power. There is no Kenyan Company which has done a single solar power project of the values shown of minimum 21M Single Project. This should be put into consideration to allow more participants in bidding process	The requirement shall be as per the issued bidding document. The requirements are based on size/ value of the contract for each lot.
2.	Considering that the installation are small units of less than 20Kw, each installation is simple and not complex. Therefore, the units are repetitive and you should consider to reduce the minimum value of each contract to at least kshs 2,000,000.	The requirement shall be as per the issued bidding document. The requirements are based on size/ value of the contract for each lot.
3.	The Turn Over requirements are too high considering the project duration is 18 months and the bidder is not financing the projects. This should be reduced to allow more participants in the bidding process.	The requirement shall be as per the issued bidding document. The requirements are based on size/ value of the contract for each lot.

No.	Bidder Query/ comment	KPLC Response
4.	**The Specific Requirement of Section 4.2a:** There is a requirement that Companies should have 2 Projects in Solar Energy with a minimum Value ranging from US$ 210,000 to US$ 915,000. As far as we know, only REREC in Kenya has floated such Tenders in 2017. The Companies which won some lots were being awarded 1 job each. The qualification requirement for that Tender was Turnover in Engineering BUT NOT specific to Solar. Such jobs are rare. This particular requirement means Companies with Engineering capability will be locked out. Unless the Tender is tailored for specific Companies.	The requirement shall be as per the issued bidding document. The requirements are based on size/ value of the contract for each lot.
5.	**The Specific Requirement of Section 4.2a:** There is always talk that Companies can partner as Subcontractors. The values of Subcontract are typically less than 5%. Through Subcontracting, it will never be possible to get a Single Subcontract of even USD 50,000 or even achieve Turnovers of US$ 600,000. So going by your criteria, **A Subcontractor will never Graduate to EPC Status.** We suggest that Specific Experience should be for Engineering Work.	The requirement shall be as per the issued bidding document. The requirements are based on size/ value of the contract for each lot.
6.	**The Specific Requirement of Section 4.2a:** The Tender has not provided for Entry Level Companies. **It means those who are in the Business continue doing it. There will be no new entrants.**	The requirement shall be as per the issued bidding document. The requirements are based on size/ value of the contract for each lot.
7.	**Section 4.2B;** It states that the 2 Contracts must be Design, Supply and Commissioning. Clearly, Subcontracting is out of question. It follows that it is not possible to form a Partnership. There is no foreign Company that can accept a Joint Venture and give EPC Scope.	The requirement shall be as per the issued bidding document. In the event bidders decide to submit their bid as a joint venture then the scope/ responsibility of each partner shall be agreed upon by the members of the joint venture. Subcontracting is allowable but at the discretion of the awarded bidder
8.	**Section 3.3: Cash Flow Requirements:** The Cash Flow requirements are unrealistic and wrong. They do not take into account the Works in Progress, Delayed payments from Debtors etc. The criteria is also meaningless when Banks have various ways of arranging facilities including Trade Insurance. These are among outdated assumptions like in Debt Aging. In today's world, **the Longer an Invoice is unpaid, the closer you are to being Paid.**	The requirement shall be as per the issued bidding document. The requirements are based on size/ value of the contract for each lot. The requirement is for the Bidder to demonstrate access to, or availability of, financial resources such as liquid assets, unencumbered real assets, lines of credit, and **other financial means**, other than any contractual advance payments
9.	**40% Local Content:** The Tender has not demonstrated how it will achieve 40% Local Content.	Not applicable
10.	**Evaluation Criteria:** The Tender has not clearly stated its evaluation criteria. It has left room for non-qualitative evaluation.	The evaluation criteria is clearly spelt out in the issued bidding document

No.	Bidder Query/ comment	KPLC Response
11.	**World bank Mission Statement:** We have attached the World Bank Mission Statement who are funding the Project. It says inter alia 'The World bank mission is to increase the Incomes of the poorest 40% of people in every country. The World bank is the Largest source of Funding and Knowledge for Developing Countries in the World and doing sustainable Development'. We have not seen that mission goal in the Tender. Kenyans will be required to service the Loans by paying taxes and yet more than 90% of the Money went back abroad. **We feel this does the exact opposite of the World bank Mission Statement. The Tender intentionally aims to Block Locals.**	The bidding document is in line with the World Bank procurement regulations.
12.	Concerning the *Bid Security*, we would like to clarify whether we have to submit a separate Guarantee for each lot (e.g. 11 lots 11 guarantees), or whether we can use a single Guarantee with the total amount for all lots.	Bid Security is required for each lot as per ITB 20.1 of the issued bidding document
13.	For sake of clarity, the below refers to Clause 32.1 (Care of Facilities) of GCC of the O&M Agreement: please confirm that during the 7-years operation and maintenance phase the Contractor shall NOT be responsible for the care and custody of the Facilities or any part thereof since such provisions only apply until the date of Completion of the Facilities pursuant to GCC Clause 24.	The contractor will be responsible for care, custody and all security arrangements of the facilities and the contractor's personnel during the supply and installation phase and during the 7-year Operations and Maintenance period.
14.	Concerning Contractual Conditions, we would like to clarify if the responsibility of Security and Damages is applicable only for the EPC contract or should we consider it also for the 7 years of O&M contract? We understood from the documents that these responsibilities will be finished at the end of construction.	The contractor will be responsible for care, custody, damages and all security arrangements of the facilities and the contractor's personnel during the supply and installation phase and during the 7-year Operations and Maintenance period.
15.	Kindly share the contact information for the County Renewable Energy officer for purpose of coordinating site visits to other sites.	Copy of contact details for the County Renewable Energy officers is attached as **Appendix I** to the clarification No. 1.
16.	Kind request for a 2-week extension from the date of submission to enable the bidders enough time to compile their responses this is due to the extensive number sites/lots to be visited before the bidder can select the lots to participate in.	Please refer to Addendum No. 1
17.	Please clarify if attendance of the pre bid meeting and site visit is mandatory for the above KOSAP solar power tender	Pre- bid meeting and site visits are not mandatory but Bidders are advised to visit and examine the site where the Plant is to be installed and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the Bid and entering into a Contract for the provision of Plant and Installation Services. The costs of visiting the site shall be at the Bidder's own expense.

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18.	Will it be possible to get a copy of the pre- bid minutes? When is the site survey scheduled to take place, and can we participate in that?	The pre-bid minutes of meeting are available on the KPLC website (www.kplc.co.ke) Site survey is at the discretion of the bidder
19.	Could you clarify the maximum number of lots and or any one party or JV can effectively bid for?	Bidders may bid for any one lot or any number of lots
20.	Can the Experience for Specialised Sub-Contractors count towards a Bidder's Experience?	No. The experience that is considered is that of a bidder (single entity or partners in a joint venture)
21.	Since site visits are not mandatory, is it necessary to have Appendix 2 bid response Sheet No. 2 in Volume II of the bidding document?	Site visits are not mandatory. However, Bidders are advised to fill in bid response sheet No. 2 for the sites visited
22.	As per the tender document VOLUME II pg. 90 there is a site visit form for all the facilities in every lot. Bidder is to submit a dully filled bid response sheet No. 2 for respective lots along with the bid. Is it mandatory for one to visit the sites and attach the list with the bid. Will the evaluation of the bids be based on number of sites one will have visited?	Site visits are not mandatory. However, Bidders are advised to fill in bid response sheet No. 2 for the sites visited
23.	When we went through the bidding document, and found that "Energy & Petroleum Regulatory Authority (EPRA) Solar PV System Class T3 license or equivalent" is necessary for bidder. But there is no this kind of license in China, so is it a must-be for foreign company?	Bidders shall provide Energy & Petroleum Regulatory Authority (EPRA) Solar PV System Class T3 license (for local Solar PV specialists) or equivalent (for foreign Solar PV specialists) from their respective licensing bodies
24.	I request you to provide us the following details before we buy the document: 1) List of Items, Schedule of Requirements, Scope of Work, Terms of Reference, Bill of Materials required. 2) Soft Copy of the Tender Document through email. 3) Names of countries that will be eligible to participate in this tender 4) Information about the Tendering Procedure and Guidelines 5) Estimated Budget for this Purchase 6) Any Extension of Bidding Deadline? 7) Any Addendum or Pre Bid meeting Minutes?	The bidding documents containing all this information can be downloaded free of charge from the KPLC website (www.kplc.co.ke)
25.	Kindly clarify on whether the bidder should attach manufacturer authorisation & warranty on both; plant and mandatory spare parts supplied from abroad and plant and mandatory spare parts supplied from within the employer's country	The requirement shall be as per the issued bidding document.
26.	Volume I - Page 69 - Key Personnel: (4.1) Can the same specialists be proposed for several lots if it doesn't impact the schedule of the project? (4.2) An Environmental, Social, Health and Safety (ESHS) Specialist is required for each lot. Kindly precise the type of degrees accepted.	A separate set of key personnel is required for each lot. The academic qualifications and experience requirements are as per the issued bidding document.

No.	Bidder Query/ comment	KPLC Response
27.	Volume II - Page 69 - Key Personnel O&M: Can a specialist proposed in the list for the design and construction of the stand alone systems can also be presented for the O&M list?	Yes
28.	Please clarify on the requirement of key personnel for a foreign company. Is it mandatory to have solar PV specialist with the EPRA solar PV system T3 license at the bidding stage.	Bidders shall provide Energy & Petroleum Regulatory Authority (EPRA) Solar PV System Class T3 license (for local Solar PV specialists) or equivalent (for foreign Solar PV specialists) from their respective licensing bodies
29.	Is one office with two workstations per batch enough, or do you need more of these installations?	Please refer to Addendum No. 1
30.	Is it allowed to propose a single building that serves the functions of a technical room and an office room, appropriately separated?	The requirement shall be as per the issued bidding document.
31.	Regarding electrical cables: • For the 48VDC power supply system, a grey-coloured cable has been requested. What other colour should be selected to identify the other polarity? • For DC distribution systems, the required cross-sections are quite large compared to normal industry practice. In such cases, is it possible to propose an AC distribution solution? • The required PV cables refer to expired technical standards. Is it allowed to refer to EN 50618:2014, IEC 62930?	• Please refer to Addendum No. 1. (Revised Colour coding will be Brown for positive (+) and Grey for negative (-) • The requirement shall be as per the issued bidding document • The standards stated in the issued bidding documents **or current version** shall apply
32.	Concerning fencing, is it allowed to propose gravity anchoring systems?	The requirement shall be as per the issued bidding document.
33.	With regard to the functions of the battery charger, it has been requested that all voltage set-points can be configurable and that the state of charge can be indicated (floating, equalisation, etc.). These parameters are typical for lead-acid batteries. In the case of lithium batteries, the BMS and the charger's charging algorithm perform these functions. In this case, is it possible to neglect the typical requirement for lead acid batteries?	The requirement shall be as per the issued bidding document.
34.	A discharge profile of at least C/4 has been required, also typical of lead-acid batteries. Is there an update to this requirement that is compatible with lithium-ion batteries?	The requirement shall be as per the issued bidding document.
35.	Is there a list of typical loads and types of power supply for clinics and schools, identified as the standard of the required system users?	Loads vary from site to site. Typical power supply for these systems is Alternating Current (AC) single phase.
36.	Is there any wind data available that should be considered as maximum reference values when designing the foundations of PV structures and rooms to be built?	Refer to the Kenya Meteorological Data and design to meet the average wind regime for each site

No.	Bidder Query/ comment	KPLC Response
37.	I've checked the technical specifications for the equipment and have noted that the required DC Input voltage for Battery inverter/chargers is indicated as 48V. (Volume II Pg 47) I've also noted that the required battery inverter/chargers are in the range of 1000W, 1500W, 2500W, 3000W, 4000W, 5000W and 15000W. However, small size inverters in the range of 1000W and 2000W (which are the majority in the project) comes with either 12V or 24V DC Input voltage. Kindly clarify if it's ok to work with the available DC Input voltages (12V/24V) for the small systems or we must stick to 48V which means bigger inverter capacity to replace the smaller battery inverter/ chargers.	The requirement shall be as per the issued bidding document.
38.	The inverters we propose to use for the systems have integrated charge controllers, is this acceptable; as charge controllers are listed separately as "major equipment" in the bid document.	The requirement shall be as per the issued bidding document.
39.	Since there isn't a defined format for the manufacturer warranty, how will we prove that they have complied with the requested warranty period per item?	Please refer to Addendum No. 1. The revised Manufacturer's Authorization and Warranty Form is attached as **Appendix I** of Addendum No. 1
40.	While doing our design calculations, we have noted that for some of the sites, PV capacity provided seems to be smaller than what would be needed to charge the battery bank. Kindly advise on this matter	The requirement shall be as per the issued bidding document.
41.	Is it ok to use a bigger inverter for the small sites? This is because it can help with future expansion since the larger inverters can be stringed.	The requirement shall be as per the issued bidding document.
42.	As per VOLUME III_PRICE SCHEDULES_KOSAP STAND ALONE SYSTEMS : separated prices are requested for Battery Inverter / Charger **and** MPPT charge controller. Can we propose an all-in-on inverter with integrated inverter, Battery charger and MPPT if all components are respecting the minimum technical specification? In this case, can we assume both items as 50% of the total price of the inverter?	The requirement shall be as per the issued bidding document.
43.	As specified in the list of system designs for each site, several sites with solar capacity above 3000 Wp dc are requested with an AC coupled design. In the case the proposed inverter has an in-built MPPT which can support the proposed solar capacity, can we propose a DC coupled design instead or all the capacity will be on the grid tie inverter of the nearest proposed power?	The requirement shall be as per the issued bidding document.

No.	Bidder Query/ comment	KPLC Response
44.	In "APPENDIX 1 - BID RESPONSE SHEET NO.1 (GUARANTEED TECHNICAL PARTICULARS)", the Community Facility Name is requested. Can we submit one document for each similar site instead?	The requirement shall be as per the issued bidding document.
45.	Please clarify if the bidder is bidding with a subcontractor can they use the subcontractor solar PV system T3 license.	No. The experience that is considered is that of a bidder (single entity or partners in a joint venture)
46.	Volume II (Part 2)/4.10.3 reads "The Charge Controller input voltage is 48VDC ". Since the charge controllers required are MPPT, they don't have a fixed input voltage. please kindly clarify.	The specified voltage refers to the nominal voltage
47.	Volume II (Part 2)/4.5, 4.6, 4.10, (PV Inverter Battery Inverter/ Charger & Charge Controller) Please kindly clarify if it`s ok to adopt Hybrid inverter, which is a multi-function inverter with advanced technology, high integration and user-friendly interface.	The requirement shall be as per the issued bidding document.
48.	Volume II (Part 2)/ 4.5.3/i; Volume II (Part 2)/ Tables 2A through 2K, some Community Facility`s load capacity is more than 10kW, please kindly clarify if it`s ok to adopt three phases inverters instead of Single phase inverters.	The requirement shall be as per the issued bidding document.
49.	We would also like clarification on whether the drawings requested for in bid document II; are supposed to be for each of the 473 individual sites /general drawings indicating the designed layout for the system and structures.	A schematic/general layout drawing should be provided for each PV size category
50.	Are bidders supposed to submit detailed design at this stage as it is not practical to develop the detailed design for all facilities within the stipulated timelines.	A schematic/general layout drawing should be provided for each PV size category
51.	It is specified in Clause ITB 11.1 (j) of Bid Data Sheet "The bidder shall submit Type Test Reports and certificates from accredited laboratories" . Please tell us which equipment in the system, such as Solar Photovoltaic Module, Solar Battery, Inverter, Charge Controller etc, need Type Test Reports? Can you accept replacing the Type Test Reports with IEC, CE or other certificate issued by a third-party laboratory?	The major equipment are listed in ITB 11.1(j). Type Test requirements shall be as per the issued bidding document
52.	There is a requirement to submit drawings are we submitting drawings for each location/ facility and/or we are submitting on one typical drawing for Roof and one mounted Solar System?	A schematic/general layout drawing should be provided for each PV size category
53.	The employer has given specification for AC and DC coupled systems, is it necessary to have both or can one design a hybrid system?	The requirement shall be as per the issued bidding document.

No.	Bidder Query/ comment	KPLC Response
54.	There is a requirement to submit drawings are we submitting drawings for each location/ facility and/or we are submitting on one typical drawing for Roof and one mounted Solar System? The employer has given specification for AC and DC coupled systems, is it necessary to have both or can one design a hybrid system? Extension of Bidding Closing Time: Following the recent Pre bid conference and guided site visits in Garissa and Isiolo Counties and the need to undertake other site visits in counties/ lots if interest. To facilitate this, we Request for extension of Bidding closing from 9th November 2021 to 15th December 2021 at 10.00am.	A schematic/general layout drawing should be provided for each PV size category The requirement shall be as per the issued bidding document. Please refer to Addendum No. 1
55.	For 48V Batteries as required in the contract document: Inverters of 1,1.5,2 KW capacity, usually come with a 12V Battery. Is there a design mismatch/discrepancy or should it remain 48V?	The requirement shall be as per the issued bidding document.
56.	**DESIGN:** Are drawings site specific or can they be done in templates for similar sites/lots?	A schematic/general layout drawing should be provided for each PV size category
57.	**INVERTERS AND CHARGERS:** Can we use energy storage inverters instead of separate inverter and charger? **METER BOX:** Can we have communication meter phase? What is the protocol and supervising system?	The requirement shall be as per the issued bidding document.
58.	What kind and level of wiring is expected in the sites- surface wiring vs chasing	Surface wiring with mini trunking shall be applicable. Level of wiring shall be as per the issued bidding document.
59.	**<u>AC Coupled Systems</u>** Therefore, please confirm whether the application scenario of the project is determined to be off-grid and whether the system scheme is coupled with AC side. Whether the hybrid inverter can be used to replace the photovoltaic inverter + energy storage converter. If convenient, you can provide the topology structure for reference below. Thank you!	The requirement shall be as per the issued bidding document.

No.	Bidder Query/ comment	KPLC Response
60.	I am concerned that some designs will not be able to work as expected. For example, the matching given for the below site-Saretho Dispensary. • 8.4Kwp of SPGP cannot charge 64.7kWh of BESS within a day and give an autonomy of 2 days as stated in your requirements • 5kw, 48V of inverter charger cannot be able to charge 64.7kwh of BESS within daily sunshine hours Possible effects • batteries won't be able to charge to capacity, or the draw might exceed 80% incase the load is bigger and this will shorten the lifespan of batteries • Lithium batteries might overdraw and shut, and will need forced charging to re-excite Suggestions • Introduce charge controllers that can deliver required current to BESS within sunshine hours and do away with PV inverters. Priorities to be set in servicing loads. Again, increase the capacity of SPGP but be able to be handled by charge controllers • Increase SPGP but not exceed 1.25 DC/AC ratio for PV inverter, then increase the inverter charger to a level that can deliver sufficient charge to BESS Concern Can we bid as it is? i.e can we offer items as they are in the BOQ? In case there were other plans (keeping some items as spares).	The requirement shall be as per the issued bidding document.

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

ANDREW ASHENE
Ag. GENERAL MANAGER, SUPPLY CHAIN & LOGISTICS

APPENDIX I- CONTACTS FOR COUNTY RENEWABLE ENERGY OFFICERS

No.	Candidate's Name	County	Tel	Email Address	Title
1	Salah Abdi Maalim	Garissa	0722727012	swaleh161@gmail.com	CREO
2	Abdi Osman Guyo	Isiolo	0704267955	kotileabdi@gmail.com	CREO
3	Habel Mwatata Mwarabu	Kilifi	0721781223	hmwatata07@yahoo.com	CREO
4	Salama Mwafrika Mwasafari	Kwale	0713937849	salamamwafrika@gmail.com	CREO
5	Osman Hassan Mohamed	Mandera	0722167792	osmanhassan8@gmail.com	CREO
6	Jalle Gesile Gideon	Marsabit	0716894494	jallegesile@gmail.com	CREO
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8	Tom Sego	Narok	0720799332	datasegotom@gmail.com	CREO
9	Caleb Ewoi Nakain	Turkana	0714371688	calebewoi@gmail.com	CREO
10	Fahma Yussuf Adan	Wajir	0729581707	fahmayussuf@gmail.com	CREO
11	Stanley Kipchoge Sitienei	West Pokot	0724897996	ssitienei32@gmail.com; stansit85@yahoo.co.uk	CREO
12	George Otula Nyangwa	Lamu	0729779349	george.otula50@gmail.com	CREO
13	Jackbed Gakii Mugo	Tana River	0719500739	jacquebedg@gmail.com	CREO
14	Fardosa Shariff	Taita Taveta	0715118121	firdous28@yahoo.com	Director for Energy