

Our Ref: KP1/6A.1/PT/13/16/A58

16th March, 2017

Dear Sir/ Madam:

**CLARIFICATION No. 1 OF BIDDING DOCUMENT FOR ICB NO: KP1/6A.1/PT/13/16/A58
DESIGN, SUPPLY, INSTALLATION OF ADVANCED METERING INFRASTRUCTURE
(AMI) SYSTEMS TO SUPPORT REVENUE RECOVERY AND PROTECTION
PROGRAMS**

1. CLARIFICATION 1 TO BID DOCUMENT

The following responses are made to clarifications sought on various issues in the Bidding Documents for Procurement of AMI system Equipment and associated attachments.

No.	Query	Response
1	Samples. Are any samples needed for this tender? If yes, which samples are needed and the quantity.	No samples needed for evaluation purposes.
2	Purchase of bidding documents. Does the bidder need to purchase the tender documents? If yes, how shall the bidder purchase the tender documents?	Refer ITB-as per the advertisement
3	All the equipment to be installed at the customer premises shall be located inside a Meter Box. In case an existing Meter Box needs to be changed, the Supplier is responsible for all cost of the box change. Please provide how many meter box needs to be replaced and type of the meter box.	All meter boxes will be changed as per Clause 10.1
4	4 hours maximum recover time if a catastrophic failure is corrected. Shall disaster recovery site be deployed at a remote location to serve as back up of all the databases and system which can be used in the event of a disaster. If yes, how many disaster recovery site shall be deployed	Refer Clause-9.8.16.5
5	The Supplier shall be responsible for the execution of all the installation services and all the interfaces required with the KPLC systems (e.g ICS, SAP, IMS Outage Management system, ITRON, C&I, GIS and EBM Energy Balance Module) and supply of all the equipment needed to make operable the Management Reading System "MRS" specified in this document. Who shall be responsible for sites survey?	Refer Clause 10.1 "The contractor shall be responsible for design, material supply, transport, erection, and installation and commissioning as well as having the full responsibility for all works necessary to have the AMI system complete".
6	The meters shall have provision for entering credit tokens when meters are operated in the prepayment mode. Shall the meter itself need the keypad? Shall UIU be equipped together with the meter?	The key pad will be on the UIU. Meter and UIU shall be split.

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7	The communication module shall have the DC power output +13V to support the power to UIU. Shall UIU be equipped together with the meter? And what is the communication type between the meter and the UIU?	The key pad will be on the UIU. Meter and UIU shall be split. The following communication modes between the meter meter and UIU are acceptable; ZIGBEE, PLC, Wifi
8	<p>Clause 5.5.6.2 The meters shall have a facility to enable automatic disconnection of whole of customer load when the set/authorized demand is exceeded.</p> <p>Clause 5.5.6.3 The meters shall have a facility to enable automatic disconnection of part(s) of customer load when the set/authorized demand is exceeded. Please define the conditions of automatic disconnection of whole and parts of customer load.</p>	<p>Clause 5.5.6.3 deleted as per addendum 1. Refer Clause 5.5.6.2 maintained "The meters shall have a facility to enable automatic disconnection of whole of customer load when the set/authorized demand is exceeded".</p>
9	The meter shall allow KPLC to select measurement of KVARH and KVAH to include or not to include harmonics in the measurement. Thus, choosing vector (phasor), arithmetic apparent, or apparent power. Please clarify arithmetic apparent.	<p>Refer Clause "5.5.8.4 To read-"The meter shall allow KPLC to select measurement of KVARH and KVAH to include or not to include harmonics in the measurement. Thus, choosing vector (phasor) or apparent power".</p>
10	The meters shall be capable of measuring energy in security mode and also record reversed units. Please clarify security mode and its conditions.	Refer Clause 5.5.8.6 To read." The meters shall be capable of measuring energy and also record reversed units".
11	The meter software/program shall be capable of tracking user access to the meter. Does this refer to the meter anti-tamper function? Please clarify the user access to the meter?	User access refers to Authorized access by utility personnel as per Clause 4.2.2.3 and ITB Clause 5.5.13.5 "Access to meter parameters and programming information shall only be through user-level password(s)". This should also be tracked by AMI system
12	<p>Clause 2.1 There are three models of network that shall be deployed: Network based on RF technology, Network based on PLC technology and Network based on a mixed RF-PLC technology. The following section will describe the general requirements to be met by any of them.</p> <p>GPRS communication shall be limited to data concentrators and the central station.</p> <p>5.10 Communication to Central System GSM/GPRS. The communication between the meter to the system is directly through GSM/GPRS or through concentrator? If the meter communicates with concentrator through PLC/RF, and concentrator to the system through GPRS, then what is the quantity of concentrators in this project?</p>	Kindly refer ITB 10.1 "The contractor shall be responsible for design, material supply, transport, erection, and installation and commissioning as well as having the full responsibility for all works necessary to have the AMI system complete".
13	Disconnected 2-pole disconnector (live only). Please clarify live only?	Refer Clause Live only refers- to Phases Red Yellow and Blue (RYB).
14	The meter body dimensions shall not exceed: Height = 250mm; Width = 170mm; and Depth = 90 mm; Shall the dimensions be exact as per given? As the supplier will also provide the meter box, and also no dimensions' requirements on the meter box, we would suggest that the supplier provide its meter and meter box in its bidding doc and proposal.	<p>Refer Clause 6.2.2.16.</p> <p>"The meter body dimensions shall not exceed: Height = 250mm; Width = 170mm; and Depth = 90 mm".</p>
15	The load disconnects switches (relay) shall be fitted on both the Live	

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	and Neutral circuits. These relays shall operate simultaneously. In case there is an imbalance between the Live circuit and the Neutral circuit, the meter will take it as a tamper event and record it. The meter will measure on the higher current without disconnecting the loading switch. Please clarify if this is the requirement for the single phase meter. If it is for the three phase meter, shall the meter have relay in both phase A,B,C and neutral?	Requirement for three phase meters. Refer Clause 6.2.6.2.
16	System interface GSM/GPRS. The communication between the meter to the system is directly through GSM/GPRS or through concentrator? If the meter communicates with concentrator through PLC/RF, and concentrator to the system through GPRS, then what is the quantity of concentrators in this project?	Refer Clauses 7.5.4.1, 7.5.4.12 and 10.1 in Volume 2
17	Disconnected 1-pole disconnector (live only). Please clarify live only.	‘Live only’ refers- to the live line (RYB) Phases.
18	The concentrator shall be operated from main power with reference values of: 3x57.7/100V to 230 V/400V, 3 x 1 (10) A at 50 Hz. Shall the concentrator have measurement function?	Concentrator Shall have measurement function.
19	Switching shall be done only in the phase. Neutral is never disconnected. Shall the meter be equipped with relay only in phase?	Kindly refer Clause 8.5
20	<p>The meter Box shall have the following features;</p> <ul style="list-style-type: none"> o Material for the body: Plastic. Fiber-glass Reinforced Plastics (GRP), Polyethylene terephthalate, ABS, etc., or similar materials. o The structure of the box should be very solid, with good seal performance and resistant to dust and water. o Fireproof, corrosion-proof, insulated o Concealed hinges o Mounting screws fitted from inside o Adequate space for meter, modem and cut-outs o Meter box should be capable to handle external modem antenna o Suitable for installing three phase meter box <p>Kenya Power and Lighting Company VI 4Revenue Protection Project (RPP)</p> <p>Kenya Electricity Modernization Project Scope or Works 96 of 157</p> <ul style="list-style-type: none"> o One polycarbonate window for user to check electricity consumption value on the door. o For internal use must be IP54 Compliant o For external use must be IP65 compliant. There is no requirements on the meters, is the supplier be free to provide the meter box based on the filed installation environments, such as 1 meter in one box, 4 meters in one box? 	Refer Clause 10.1
21	iii. Integration to the MDMS of 16,000 customers’ metering points with smart meters as specified in 10.1.2.2 The bidder can choose between: (i) integrate the 16,000 existing smart meters to the MDMS based exclusively on the information in 10.1.2.2 above (KPLC reject any proposal requiring additional information to proceed with the integration); or (ii) replace the existing Smart meters meters by others meeting the specifications. We request to remove this requirement from the tender. We assume that the existed three smart meter pilot suppliers will not provide any additional information to proceed with the integration, this will cause huge extra and unnecessary cost to all the bidders and KPLC	Maintain the clause. KPLC will provide the necessary support to enable interfacing with the existing systems.
22	With reference to the abovementioned tender, could you advise on	

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	the format and programme for the pre bid meeting, as the document states that the duration of the site visit is 5 days. We would like to make accommodation and travel arrangements accordingly.	Pre-bid meeting and sites visit done between 27 th February, 2017 up to and including 3 rd March 2017.
23	We are interested in your ICB KPI/6A.1/PT/13/16/A58 issued by your company: Procurement of Design, Supply, and Installation of Advanced Metering Infrastructure (AMI) systems to support revenue recovery and protection programs, and we plan to attend the pre-bid meeting on Feb. 27th 2017 at your place, please kindly confirm what we have to do to be eligible to attend this meeting, like purchasing the tender documents published on your website?	Pre-bid meeting and sites visit done between 27 th February, 2017 up to and including 3 rd March 2017.
24	Our company is interested to partake in the above mentioned tender. May you please, assist us with registering and obtaining the tender documents?	Refer ITB-as per the advertisement
25	Further, as per tender documents, site visit will be conducted for 5 consecutive days immediately after pre tender meeting on 27-Jan-2017.We request to please confirm and inform us the schedule of site visits along with dates and locations, so that we can make necessary travel arrangements. As we are coming from Saudi Arabia, so this information is important for us to make travel arrangements timely.	Pre-bid meeting and sites visit done between 27 th February, 2017 up to and including 3 rd March 2017.
26	We would like to inquire at what stage of the bidding process we will be required to bring a sample if need be.	No samples needed for evaluation purposes.
27	We would also like to inquire whether a demonstration will be necessary and at what stage of the bidding process.	No demonstration Required.
28	We would also like to inquire about the local authentication if need be and what stage of the bidding process it will be.	KEBS certificate will be required after award.
29	Volume 1 page 1-31 The mandatory site visit is a 5-day visit. Is this visiting various sites over the 5-day period or is the employer available for a site visit during the 5 days?	Pre-bid meeting and sites visit done between 27 th February, 2017 up to and including 3 rd March 2017.
30	Volume 1 page 1-55 Item RPP103 are the enclosures submitted as a separate item and not inclusive of the meter?	Kindly refer ITB Clause 10.1 "The contractor shall be responsible for design, material supply, transport, erection, and installation and commissioning as well as having the full responsibility for all works necessary to have the AMI system complete".
31	As a manufacturer of revenue protection electricity meters would a submission be considered where non-core items are excluded from the bid, for example the metering enclosures?	Kindly refer ITB Clause 10.1 "The contractor shall be responsible for design, material supply, transport, erection, and installation and commissioning as well as having the full responsibility for all works necessary to have the AMI system complete".
32	Is part of the scope to install the meters into the metering enclosure and then installation of the enclosure onsite?	Kindly refer ITB Clause 10.1 "The contractor shall be responsible for design, material supply, transport, erection, and installation and commissioning as well as having the

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		full responsibility for all works necessary to have the AMI system complete".
33	<p>Compliant with DLMS-Open Protocol. Kindly note that tender defined different communication protocols in multiple clauses. So in some clauses the RFP defined the DLMS as the required communication protocol. Then in other clauses RFP defined the OSGP (open smart grid protocol) as the required standard as in the Data Concentrator specification clause 7.3. while in other clauses the RFP defined "DLMS or any equivalent protocol" as in clause 5.5.3.6 Will KPLC take into consideration any open protocol as long as it offers the needed support and capabilities including:</p> <ul style="list-style-type: none"> • Open protocol. • Supported by an industry alliance to guarantee interoperability. • Formal certification process with testing by a third party. Focus on use cases, business value, IT integration and security instead of low level standards • Require specific references including: <ul style="list-style-type: none"> • Installed at least in 5 projects; At multiple utilities (>5); • In multiple countries (>5); • With over 150,000 meters installed for each of the 5 projects; • Running at least for 3 years; • Operating at or above 99+% daily availability of meter data; • Total references of at least 3 million meters. <p>Please confirm that KPLC will accept DLMS or other open protocols, such as Open Smart Grid Protocol (OSGP), as long as they meet the requirements</p> <ul style="list-style-type: none"> • Set minimum performance levels based upon use case with Service Level Agreements (with penalties) • Focus on communication reliability and references as one of main criteria for qualifying smart meters. above or some other criteria that KPLC decides to utilize? 	Communication protocol is DLMS or equivalent protocol - Refer Clause 5.5.3.6
34	<p>RS-485 interface. The existing specification require meters need to have an RS-485 interface. Please note that RS-485 requires high infrastructure cost. In addition, The RS-485 type of interface is typically associated with legacy meters without communications and does not take advantage of technologies now available with smart meters.</p> <p>Please confirm that RS485 is not mandatory especially that it will increase the cost of meter and the implementation cost for the network without any additional benefit?</p>	Maintain RS-485 interface. Kindly refer ITB Clause 5.5.3.4
35	<p>Compliant with STS Prepayment. The existing specification require meters to be compliant with STS Prepayment Metering Systems, IEC62055-41 (STS).</p> <p>Specifying this standard that was originally based on standalone prepayment solutions, would eliminate solutions that take advantage of features available with modern smart metering solutions.</p> <p>STS keypad technology is typically used for standalone legacy meters and not modern smart meters. In addition, standalone legacy meters had a lot of security and operation problems.</p> <p>Advanced prepayment using smart meters and two-way communication infrastructure does not need any cards or keypads.</p>	Maintain STS prepayment metering system.

No.	Query	Response
	Please confirm it is acceptable to offer smart meters with the required prepayment functionality but using more advanced network provided solution other than the old STS?	
36	<p>Single Phase Terminal. Please confirm the terminal configuration for single phase meters. Is it BS (L N L N) standard or DIN (L L N N) standard?</p> <p>As a market leader in smart metering, we have seen the DIN standard (L L N N) has much more references worldwide as it provides more isolation and protection. Does KPLC have no preference and can accept DIN standard LLNN.</p>	Refer Clause 5.5.2.2
37	<p>Hot Swappable Modular Design. Kindly note that hot swappable modules face a lot of security concerns in a lot of European countries now, instead KPLC can adopt integrated modular PLC communication that maintain high security while in addition supporting MEP (Multi expansion port) with RS232 that can support any future communication that can be developed by third parties based on KPLC requirement.</p> <p>Moreover, the hot swappable modular design represents the following disadvantages: It is more expensive because an integrated modem is more cost effective.</p> <ul style="list-style-type: none"> • It is less reliable. An integrated modem eliminates various components needed to communicate between the meter and the communications module. More components/devices mean more potential equipment failures. • It is less secure. Having external connections, components and devices, provides opportunity for people to intentionally and even unintentionally to disrupt communications. • It is more complex to implement. The greater the number of components, devices and interfaces, the more complex the integration, testing and overall solution. • It is harder to maintain, troubleshoot and warranty. By having multiple components and devices, identify problems, fixing problems, and getting warranty support from suppliers, is much simpler when there is only one integrated device. <p>Kindly confirm that Integrated PLC modem is accepted in addition to the support of expansion port with RS232 for future communication modules?</p>	Refer Clause 5.5.3.8 (To be maintained)
38	Max current for single phase is 80A. Kindly note that 80A will limit the future plans for KPLC for the lifetime of the meter. Accordingly, will KPLC recommend 100A instead of 80A?	Maximum current for single phase to be 100A. (Refer-Addendum 1)
39	<p>Double pole disconnect for Single phase meters. Kindly note that double pole disconnect has the following disadvantages:</p> <ul style="list-style-type: none"> ☒ Switching the Neutral connection in addition to switching the live line connection will increase losses for Utilities, since the additional relay contact loss could be as high as 3W at 100A consumption. This loss is not paid by consumer but by the Utility. ☒ The reliability of the meter will be lower because the meter temperature will be higher with the additional relay. The increased resistance of the Neutral circuit due to contact resistance will increase the temperature rise in the meter by 25%. This would decrease the lifetime of the meter. ☒ Having a double disconnect switch may cause non-synchronization which would be dangerous to people that assume that if line is 	Relay on neutral Circuit not required – Refer Clause 8.5

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	<p>disconnected the Neutral will be as well.</p> <p>☑ Higher meter cost with a double disconnect. The cost of the meter could be some \$4-7 higher than the meters which do not provide neutral disconnection. Such expense is not needed if the meter has smart fraud prevention and other features.</p> <p>Instead of adding a double pole disconnect switch, KPLC can take advantage of the various tamper and theft detection features including neutral current measurement and neutral inversion within smart meters.</p> <p>Please confirm that live only disconnection is accepted.</p>	
40	<p>Integration with old existing 16,000 meters. RFP stated that KPLC had already installed 16K meters from 3 vendors. Could you please clarify if you already have HES and MDM for these meters? If yes, then we need all details about the existing HES and MDMS. Also Please clarify KPLC integration requirements between the old and the new system?</p>	<p>KPLC shall facilitate provision of details of the existing HES (C&I) system. Old refers to the existing HES new refer to the system to be supplied under this tender.</p>
41	<p>Warranty Period. It is mentioned in the tender AMI Volume 2_part 2 _employer Requirements _AMI that warranty for smart meter should be 1 year from delivery date and for Data concentrator 3 years from delivery date while in the AMI Volume 1_Part 1 instruction to bidders and conditions of contract, it is mentioned that the warranty should be 540 days after Completion of the Facilities or 365 days after Operational Acceptance of the Facilities, with an extended defect liability period of 12 months for Data concentrator and MDMS. Can you please confirm the warranty period.</p>	<p>Conditions in GCC Clause 27.1 & 27.2 shall apply and PC Clause 27.1 shall include meters</p>
42	<p>Will the bidders be required to submit samples for single phase meter, three phase meter and data concentrator?</p>	<p>No samples needed for evaluation purposes.</p>
43	<p>Will the bidders be required to arrange demonstration, during or after the bid opening? If so, when is the estimated schedule for the demonstration?</p>	<p>No demonstration required.</p>

No.	Query	Response
44	<p>Will KEBS certificate be a preferable factor for bid, evaluation since bidders without KEBS certificate temporarily can work on the getting KEBS certificate after contract award and before goods delivery?</p>	<p>KEBS certificate will be required after award.</p>
45	<p>As per BDS, following taxes shall be paid by KPL directly to KRA: Duties, import declaration fees, Value Added Tax, Railway Development Levy (RDL)-hence we understand that above shall be excluded from bidder's quoted prices. Please, confirm.</p>	<p>Refer Clause 7.5 (b)-(i), (ii) and (iii).</p>
46	<p>The quantity of mandatory spares required by KPL has not been indicated. We request to specify the quantities of all spares required like:1. Single phase meters 2. Three phase meters,3. Meters Enclosures.</p>	<p>list all recommended spares in Schedule 6</p>
47	<p>Please provide us list of sub-contractors for installation of metering projects approved in KPLC.</p>	<p>Refer Clause 37.4; and Section 3; Item 2.7 (Subcontractors), Clause 10.1 (Volume 2)</p>
48	<p>Before replacing the existing meters, the latest existing meter reading shall be registered for KPL billing, we understand that KPL representatives shall be available during installation phase to carry out this task. Please confirm.</p>	<p>KPLC will facilitate-a commissioning form will also be provided.</p>

No.	Query	Response
49	We understand that any delay in installation due to public issue shall be reported to KPL for their action and it will be pending till solving the issue, in case the problem is not solved for certain agreed time then KPL will propose other location/customer to install the pending meters. Please confirm.	Please refer to GCC Clause 18.2
50	Please provide editable files (Word / Excel) for the forms and price schedules to be filled.	To be provided.
51	We understand that bidders are not responsible about any arrangement to feed the new meter from main supply including the power cables from the transformer up to the meter location. Please confirm.	Refer Clause 10.1
52	As per our experience, requirement of service cable from LV feeder to customer cannot be ruled out. We request to include such indefinite items in separate schedule on unit price basis.	Estimate for the cables provided.
53	Schedule-4, Fixed Communication Cost per Meter-We understand that 1.5 US\$ is per month per meter. Please confirm.	That is an Estimate, based on Current rates
54	We understand that if smart meters are provided with GPRS module for communication between meters and HES, then there is no requirement of Data Concentrators. Please confirm our understanding.	Your design must meet the requirements of Clause 2.1.3
55	In case, PLC is used for communication from meter to data concentrator, then fixed communication cost (1.5US\$ per meter) is not applicable for meters. In such case, communication from data concentrator to HES system shall be through GPRS. Please specify the fixed communication cost per DC per month.	Your design must meet the requirements of Clause 2.1.3
56	We understand schedule-6 of recommended spares shall not be considered for bid evaluation.	Confirmed.
57	Please provide details of existing HES if any.	KPLC will facilitate sharing information with existing Head End Systems.
58	Existing MDMS Please provide details of existing MDMS if any.	Refer to response in 57 above
59	HES-We understand, one HES shall be accepted for all three deployment areas (Kisumu, Mombasa and Nairobi). Please confirm.	Refer ITB 10.3.1.
60	Bid Security Form. There is no bid security form specimen available in tender documents. Please provide the same.	Refer Volume 1 ITB-Clause 20.1
61	Bid Security. Please confirm bid security shall be prepared as per Uniform Rules for, Demand Guarantees, ICC Publication No. 758	Refer Volume 1 ITB-Clause 20.1
62	Operation & Maintenance-Please specify period of Operation & Maintenance if any.	2 years
63	Can you please share more information of the existing fiber optical network of KPLC as well as the coordinates of the nodes and entry points available?	The network of the fiber optic shall be provided up to the Points of Presence. Refer attachment 3
64	In case the contractor should return the decommissioned goods, where should such equipment be returned? To the local KPLC office or storage?	Items recovered from sites to be returned KPLC stores.
65	In case the contractor should return the decommissioned goods, where should such equipment be returned? To the local KPLC office or storage?	Items recovered from sites to be returned to KPLC stores.
66	In case of decommissioning of existing meter, meter box and/or data concentrator, who will own the former equipment or goods?	Items recovered from sites to be returned to KPLC stores
67	Can you please confirm whether additional communication than	Additional communication is

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	GPRS is allowed?	allowed, but the bidder must guarantee system performance warranty as per Clause 2.1.3.
68	Clause 7.5.8.1- "The concentrators shall have two -way down-link communication mode that supports communication with the meters by PLC system"-Can you please add or comment which PLC (FSK/G3/PRIME) will be allowed or is expected?	Bidder to decide on the communication mode, which must guarantee system performance warranty as per Clause 2.1.3
69	Clause-7.5.4.7-" The data concentrator shall support meter data collection compliant with international standards IEC 62056 (DLMS) designed for interoperability with an open architecture"-conflict with clause 7.3. IEC62056 asked, but only ETSI GS OSG 001 (OSGP) listed 62056 is a set of standards for Electricity metering data exchange by International electro technical Commission. The IEC 62056 standards are the International Standard versions of the DLMS/COSEM specification	Refer Clause 7.5.4.7 Maintained
70	Clause 1.2.3-System Architecture, Is there any redundancy data center request? Size of expected racks (20U, 32U or higher)? Does the Data Centers have enough space for multiple racks? How much empty space necessary for the rack design? ETSI or 19" rack?	Refer to Bid Document Volume 2, Clause 9.8.16.5
71	'Clause 2.1-Technical requirement-Any regulatory restriction for PLC or RF or both? Which frequencies and standards are allowed? (CENELEC, FCC, ARIB for PLC; ISM or license RF frequencies?)	Licensed frequencies to be provided for RF
72	Clause-2.1.1-Scope of Supplies, Schema or drawing of the meter boxes, included BOM for expected equipment and supplementary inside the boxes?	Refer clause 10.1
73	Clause-7.2-Can we assume that other communications beside GPRS/GSM also can be used between the Data Concentrator and the HES (fiber, Ethernet, microwave etc.)?	Yes
74	Clause-7.3-Norminative References-The meters are asked to support DLMS (IEC61056), but the data concentrator is mentioned only with OSGP (ETSI GS OSG001). Can we assume that the data concentrator should also support DLMS/COSEM towards the meters?	Yes
75	'Clause 2.1.4-Communication Modules-No comment about internal communication module? Same as external module? Can one single communication module (internal or external) handle multiple meters?	Depends on the supplier's design solution
76	'Clause 3.3.1-Technical Characteristics. Can we use / offer also non-Oracle DB's (MS SQL, MySQL etc.)? Is the mentioned ICS (Billing System) mandatory or can we use our own offering?	Only Oracle DB's allowed
77	'4.2.1.2-Communication Equipment Management (MCC). Only comment listed for GPRS, can you please confirm that the selected NMS should be able to support all necessary or listed or offered communication system?	NMS shall support all offered communication system.
78	'Clause 5.1 Scope-The listed prepayment meters are all with key-pad. Is there an expectation that the new meters should be as well with any key pad or can we offer an environment guarantees both pre and postpaid solution?	'The meters to support both pre-payment and post payment functionality. Either mode to be configured on need basis/demand.
79	'Clause 5.2 Nominative References-No comment on PLC standards, can you please comment whether OFDM will be preferred over S-FSK for single phase meters	'Refer to Clause 2.1.3

No.	Query	Response
80	'Clause 5.5.2.8-Meter box dimensions. Dimensions only given for 3 phase meters boxes (6.4.3.3.14), can you please add this dimensions as well?	Refer Clause 10.1
81	5.5.5-Real time clock and memory-no comment of the memory size (kB or MB) of the meters, can you please state what size / days / month should be kept in the memory?	Refer to Clause 5.5.5.7
82	Communication to central system, only GPRS is listed, can you please confirm that PLC, RF or other also permitted and expect (conflict with clause 5.1)	Yes
83	Schedule of Technical Data 1phase-communication to central system, only GPRS is listed, can you please confirm that PLC, RF or other also permitted and expect (conflict with clause 5.1). IEC1901.2 only mentioned (OFDM based PLC standard), can we assume that ITU G.9903 (G3) and ITU G.9904 (PRIME) is also welcome by KPLC? Are OFDM based PLC standards preferred over S-FSK (IEC61334) or other xSK technologies? Can we assume IEC1901.2 or similar standards for 1 phase meters as well to connect to the data concentrator?	Other systems can be used but must achieve the desired results. E.g. Clause-2.1.3 System Performance Warranty (Data Communication).
84	All meters are DLMS based, but the Data concentrators refer to OSGP. There is a certain conflict in the communication and connectivity protocols inside the grid. Can you please confirm that DLMS / COSEM should be used at the data concentrator as well?	DLMS/COSEM compliance DCU to be used
85	Communication Infrastructure, In ITB 11.1(k) h v) (Volume 1).Need clarification if KPLC require 3G modems and SIM cards or PLC/RF technologies or we can choose our own best option?	Choose own best option to achieve desired results as per Clause 2.1.3
86	Data concentrators units is considered as major items of plant and Installation services, In 1.1 technical evaluation (volume 1). Data concentrator not given as a line item in price schedule? Do we need to include data concentrator price separately as line item? If we propose 3G GPRS alone for communication from meter to central system do we still need to submit data concentrator sample? If so please specify quantity of data concentrators required.	Data concentrators have been added as a line item; samples not required during bidding.

No.	Query	Response
87	RPP 404 fixed communication cost for (2 years) rate for communication: USD 1.50 per GPRS connection point. (Volume 1). USD 1.50 per month is assumed or budgeted? Are we free to negotiate GPRS data rates and/or use roaming SIM's for cost effective solution?	The unit price of USD 1.50 is an estimate based on the current charges per SIM card.
88	RPP 406 Equipment maintenance-(Volume 1). Clarify which item maintenance should be covered: 1) Software and hardware (MRS & MDMS) 2) GPRS Communication system/infrastructure Meters and other installed items in field	Maintenance shall cover AMI and MDMS
89	Clause-2.1.5 The Meter shall be able to communicate with a remote central system (AMI Head End) using a plug in modem/module, through the PLC, RF Mesh, RF point to point, or 3G networks. Can 3G GPRS network be preferred communication for residential & commercial meters to HES?	As per bidder's design
90	Clause 3.3.3 MRS should interface with KPLC existing system like ICS, SAP, IMS outage Management system, Itron, C&I, GIS and Energy Balance Module, Will KPLC provide all required interface details once contract awarded?	KPLC will facilitate sharing information with existing Business Systems
91	Clause 5.1.2 Smart single phase shall be able to communicate with data concentrator, relay or collected through RF technology, PLC technology or a mixed RF/PLC technology. Is it mandatory to use Data concentrator for residential meters?	As per bidder's design
92	Will it be Ok to use 3G modem with smart single phase meters to communicate directly with HES?	The RS485 shall give readings of at least: KWh, Voltage, Current, KVA
93	Clause 5.5.3.5 The RS485 communication interface should include at least a 4 digital outputs, isolated from all other meter circuits with fail-safe circuitry able to withstand AC 230V for 2 minutes without damage. Please clarify 4 digital outputs for RS485 communication	Correct description is 1-pole disconnecter (live only)
94	5.10 Schedule of technical data schedule single phase meters, Disconnecter: 2-pole disconnecter (live only)-Please clarify 2 pole disconnecter (live only)	Online prepayment means automatic loading of credit to the meter
95	Clause 6.4.5.5 In prepayment mode the meter should support offline prepayment (STS) and online prepayment mode. Please clarify online prepayment mode	The need for data concentrators will depend on bidder's design
96	Clause 7.0 Three phase CT connected Data concentrator is intended for procurement of Data concentrator and does not include provision of contract. Please clarify if Data concentrator required for this tender or not?	Yes

No.	Query	Response
97	7.5.4.6 k) Data concentrator - include a metering capability master and management system (Class 0.5s). Is it mandatory for data concentrator to perform metering activity with Class 0.5s?	Yes; refer to Clause 10.3
98	"Clause 10.3-Does existing 16,000 meters communicate to existing Head end system?	5 Laptops required; refer to Clause 10.8.1
99	Based on site conditions if we want to replace all 16,000 or partial quantity of existing smart meters, shall those replacing meters prices can be included as an additional cost with contract price while executing the contract?	FAT shall be for 6 participants.
100	Clause 10.6-FAT should be arranged for 3 participants from KPLC and the project manager (3+1) but in Price schedule require FAT for 10 pax-Please clarify	KPLC shall facilitate sharing of information with existing meters
101	Please confirm that all the communication infrastructure in the backbone and between the different control centers are outside of the scope of the supply.	Yes
102	Please could you clarify what kind of functionality is expected from each of the control centers?	Refer to Clause 10.3 (1.)
103	Please clarify what kind of information must provide the Control Center (MDM) to the rest of Information Systems of the Utility (Billing, Workforce Management, Energy Balance, GIS)	Refer to Clause 3.6
104	Could you indicate what parts of the CIM are currently covered by KPLC ?.	Refer clause 3.3.3
105	Could you provide the currently interfaces that must be integrated with the MDM (data sources and systems)	Refer to Clause 9.8.2
106	In the tender, we understand RF communication is acceptable by KPLC, would you mind giving more details about RF, like frequency range, free to use or not, if not free, how to apply and what about the charge.	AS per attached fiber network information 1&2
107	After the site visit, we already knew the meter installation environment, if you please give us the transformer distribution map to make us more clear to finish the proposal.	As per schedule of Transformers to be ring fenced Attached-Provisional Estimate
108	Vol 2. Technical Specifications and Drawings. ANNEX 6: SCHEDULE OF SYSTEM REQUIREMENTS-(page 156)-The RFP indicates the following: "The Bidder shall simulate the system with 10 million metering points" Please clarify what do you understand by simulation and if means that the system must support 10 million metering points without any upgrade	Refer to 9.9.3
109	What is the quantity of transformers in all the area under this project scope	As per schedule of Transformers to be ring fenced Attached-Provisional Estimate.
110	How many users should change the service cable	As per schedule of Cables to be changed -Provisional Estimate. Attachment 1

No.	Query	Response
111	How many service unit office should set up	As per bidder's preference- office/s must comply with Clause 10.10 Site Offices (RPP 410)
112	Who will pay the cost of the transport of the meter, also the storage cost	Refer to ITB 10.1
113	Who will provide the warehouse for the storage of the meters and accessories needed for the installation	The bidder will provide.
114	Who will provide the SIM card for the DCU or GPRS meter	The bidder will provide.
115	Who will take the responsibility of the old meter keeping and transport	The bidder to transport to KPLC designated stores
116	'Who will take the responsibility of the negotiation with the end user for installation solution.	KPLC will facilitate the negotiation
117	Who will decide the communication mode for the area, PLC or RF	The Bidder will decide.
118	Can we separate the measurement part as a smart three phase meter from DCU	No
119	'Volume 2-'Section 2.1 & Page 7-There are three models of network that shall be deployed: Network based on RF technology, Network based on PLC technology and Network based on a mixed RF-PLC technology. Does the bidder have flexibility to choose number of meter vendors? If not please specify the requirements in case of different meter vendor's requirements?	The bidder is allowed to have multiple meter vendors/ manufacturers.
120	'5.1.2 The meters are for use in Advanced Metering Infrastructure (AMI) system. The Meter shall be able to communicate with a data concentrator, relay or collector through RF technology, PLC technology or a mixed RF-PLC technology. Please confirm the free wireless frequency band of RF module in Kenya, and define the local available frequency band 433MHz, 868MHz?	The meter communication module is open. RF spectrum is provided.
121	5.5.2.4 The front cover may be of translucent material but shall have a window (clear glass or polycarbonate) for reading the display and for observation: Please confirm whether KPLC accept that front cover is of nontransparent material with one window of clear polycarbonate for reading LCD display?	No; maintain Clause 5.5.2.4
122	<p>0 Total at the direct peak 0 Total at the reverse peak, 0 Total off-direct peak 0 Total off-reverse peak 0 Total direct reserved 0 Total reverse reserved 0 Previous peak demand prior to most recent demand reset. 0 Maximum peak demand 0 Maximum off-peak demand 0 Maximum reserved demand 0 Accumulated reserved demand</p> <p>Is the following understanding for the following item correct? 0 Total at the direct peak - tariff 1 for forward peak 0 Total at the reverse peak - tariff 1 for reverse peak 0 Total off-direct peak - tariff 2 for off-forward peak 0 Total off-reverse peak - tariff 2 for off reverse peak 0 Total direct reserved - reserved tariff 3, forward 0 Total reverse reserved - reserved tariff 3, reverse</p>	Refer to the specifications for 3 phase meters -" LIST OF REGISTERS"
123	5.5.3.5 The RS485 communication interface should include at least a	The RS485 shall give readings of at

No.	Query	Response
	4 digital outputs, isolated from all other meter circuits with fail-safe circuitry able to withstand AC 230V for 2 minutes without damage. The specification asks that RS485 communication interface should include at least 4 digital outputs, but not define the function of them. Can we understand?	least: KWh, Voltage, Current, KVA
124	2. Whether it is acceptable that the UIU is equipped with backup battery, or whether it is acceptable that the meter equip with +13VDC output port on auxiliary terminal of meter body, but not using communication module to provide the DC power output +13V to power UIU.	Refer to Clause 5.5.3.10
125	5.5.3.10 Meter shall support external UIU or external IHD and meter information can be achieved via UIU or IHD. Page 109/157 clause 4.2.3.5 Wireless communication between meters and Home Area Network devices. What is the communication method between Meter (MCU) and UIU or IHD, RF, PLC, or other methods?	See clarification number 7.
126	5.5.3.12 The communication module shall support USSD, CSD communication. 7.5.8.4 The data concentrators shall have a GPRS modem that satisfies the requirements below: I. Modem: Pluggable 3G modem ii. Operating Band: WCDMA HSDPA'HSL'PA HSPA+: Band 1. Band 8 GSM GPRS EDGE: 850 MHz 900 MHz 1800 MHz 1900 MHz. USSD and circuit Switch Data is the most original mobile network data interchange method, it is charged per unit of the message (its cost is very expensive), is it acceptable the communication module for the meter and DCU use the GPRS and 3G communication mode?	Yes. Acceptable to use GPRS and 3G communication
127	5.5.6.2 The meters shall have a facility to enable automatic disconnection of whole of customer load when the set/authorized demand is exceeded.	see clarification number 8.
128	5.5.6.3 The meters shall have a facility to enable automatic disconnection of part(s) of customer load when the set/authorized demand is exceeded. For section 5.5.6.2: our understanding is that, the meter can be programmable to set overload threshold value, when customer load exceeds threshold value, the meter internal relay will be disconnected automatically.	Maintain 5.5.6.2; delete 5.5.6.3
129	5.5.6.3 The meters shall have a facility to enable automatic disconnection of part(s) of customer load when the set/authorized demand is exceeded. For section 5.5.6.2: our understanding is that, the meter can be programmable to set overload threshold value, when customer load exceeds threshold value, the meter internal relay will be disconnected automatically.	Maintain 5.5.6.2; delete 5.5.6.3

No.	Query	Response
130	For section 5.5.6.3: if the meter is enabled to automatic disconnection of parts of customer load when the set/authorized demand is exceeded, is it achieved by configure different overload threshold value to different customer or other methods?	See clarification 129 above
131	5.5.6.5 The meters shall have provision for keying in credit tokens when meters are operated in the prepayment mode. 5.5.6.6 In prepayment mode, the meters shall support Offline prepayment (ST S) and online prepayment Should meter (MCU) have keypad embedded?	No

No.	Query	Response
132	5.5.8.4 The meter shall allow KPLC to select measurement of KVARH and KVAH to include or not to include NS harmonics in the measurement. Thus, choosing vector (phasor), arithmetic apparent, or apparent power. The function requirements 'vector (phasor), arithmetic apparent, or apparent power', are for three phase meter only, which is not suitable for single phase meter. Is it acceptable that single phase meter only use full wave measurement?	No
133	5.5.10.3 The meters shall be capable of continuous display of the presence or absence of individual phase voltages. This section is about the presence or absence of individual phase voltage, is it the requirement for three phase four wire energy meter only? Is it acceptable that this requirement is not suitable to single phase meter?	No
134	5.5.12.2 The meters shall provide Total Harmonic Distortion (THD) event detection at least up to the 10th harmonic with analysis for unusual system conditions. Normally, measuring THD function is suitable to 3 phase 4 wire meter and CT meter, but not single phase meter, Is it acceptable that this requirement is not suitable to single phase meter?	Yes
135	5.5.13.1 b) Individual phase failure, with date and time stamps; m) Communications removal n) Magnetic detection, at least 0.5 mT b) This function is suitable for three phase meter only, not for single phase meter 11) External Magnetic field detection threshold values of 0.5 Mt, is too small and sensitive, which is easy to make event/alarm misreport, can we change as "Magnetic detection, the at further 20 mT."	No
136	5.8.1 In addition to nameplate requirements, each meter shall be marked legibly and indelibly with the following information: a) Name or trade mark of the manufacturer; b) Country of origin;c) Type/model; d) Meter number up to ten digits; e) Bar code with meter number information i) The inscription "Property of KP. & L. Co Ltd." g) Standard to which the meter complies; h) Year of manufacture. All markings to be written in English and with at least 4 mm figure height The relevant requirement of three phase meter and CDU nameplate is as following: Section 6.7.1 equirement All markings to be written in English and with c), d) and e) at least 4 mm figure. Is it acceptable if we make nameplate for single phase meter with only c), d), and e) at least 4mm figure height?	All markings at least 4mm height
137	6.4.2.2.6 The meter shall be ultrasonically sealed for life and there should be no screws on the body except for the termination of cables. Page 114/157 6.2.2.6 The meters shall have sealing provisions for the meter body, meter cover and terminal cover. It is in contradiction about those two clauses, please confirm whether it is acceptable that three phase use seal screws fixed for meter cover and meter base, but not ultrasonic welding.	Refer Clause 6.4.2.2.6
138	6.4.8.2 The meters shall display demand values and their time and date stamp. Demand value means the max. demand of the current month, or, the max. demand of the current period?	Display demand values shall be as per clause 6.4.8.2
139	7.5.4.1 The data concentrators shall automatically discover meters, providing 100% accuracy on the assets. It should upload (tariff tables) and monitors and reports tampering. It should have broadcast capability to enable demand response and load shedding. Should we understand as following: 1). Meter is programmed to	Refer to Clause 5.5.6.2

No.	Query	Response
	support load limit function within specific time period; 2). When the main station/master station broadcast the remote relay trip instruction, the programmed meter will be automatically trip time period. After the time period, the relay will connect and the power will be on automatically.	
140	2.1.3 4 hours maximum recover time if a catastrophic failure is corrected: The description of this requirement meaning that KPLC require a Disaster Recovery Center (DRC)? Or If KPLC already has the existing DRC? If not, where the DRC shall be constructed?	KPLC has an existing DRC
141	10.3 Creation of one main MCC (Meter Control Centre) in Electricity house Nairobi for administration of NT Advance metering Infrastructure. The other Metering control Centres shall be located in the regional headquarters (Nairobi, Nyeri, Mombasa, Kisumu, Eldoret and Nakuru) and will only work for monitoring and analyzing the data. The employer will provide the space, however the contractor shall carryout the necessary modifications for the requirements of the MCC. Shall KPLC give basic layout of the MMCC and RMCC and also the basic infrastructure information of MCC including power supply condition, Network condition? Can the RMCC only monitor and analyze the data which belongs to the regional meter?	KPLC will provide the necessary information
142	7.2.3 The data concentrators shall conform to the degree of protection of least IP 54 as given in IEC 60529:1989 Degrees of protection provided by enclosures (IP Code) Amendment 1:1999. Is it ok if the DCU conform to IP 51 and the DCU box conform to the degree of IP 54, because our DCU is always installed in the DCU box.	No
143	7.3.1 The concentrator shall be operated from main power with reference values of: - 3 x 57.7/ 10oV to 230 V/40oV, 3 x 1 (10) A at 50 Hz We think this supply power parameter is main for CT meter, and then our solution of DCU and CT meter is separated. Usually, the DCU is installed at the secondary side of the transformer, and 57.7V voltage is PT connected at the primary side of transformer. It is recommended the DCU reference voltage should be $U_n \sqrt{3} \times 230/400V$.	Refer to clause 7.5.3.1
144	9.8.16.3 a) An archiving procedure should be implemented enabling efficient data storage for the time of at least 6 years, and subsequent transfer to storage media providing permanent storage. b) An archiving procedure should be implemented enabling efficient data storage for the time of at least 5years, and subsequent transfer to storage media providing permanent storage) and b) is almost the same, how many years is the efficient data storage for?	6 years as per clause 9.8.16.3
145	553.11 The communication module shall support both SMS and GPRS modem and support the mode of: on line and on-demand on line. Please clarify: What are the functions of SMS and what scene is used of?	Refer to Clause 5.5.3.11
146	Architecture and System Requirements: The messages and screens of the system shall be exhibited in the national language of the country; during the phase of acceptance test they may be exhibited in English or Spanish, but the final delivery must be in the national language of the country; What language shall be the final delivery in? English is ok?	English language- Refer Addendum 1
147	9.9.3.1 The Supplier shall provide the servers that capable of handling ten (10) million metering points. AMI system and server support the 10,000,000 meters' points capacity, is it required to	Refer Annex 6 Vol. 2 Page 156

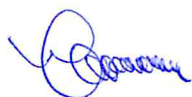
No.	Query	Response
	provide demonstration?	
148	The actual/approximate number of meters to be replaced that have one drop line from the pole connected to 5 or more meters as we saw in I&M bank in Kisumu where only one meters is to be replaced with a smart meter.	Guide to meters distributions and cables requirements is as per attached. Attachment 1
149	The general radius coverage for the meters to be connected to a transformer that will require total holistic energy balance and the approximate number of meters to be connected to the transformer.	Radius is an average of 600meters
150	3.3.1 The system shall operate using an ORACLE database Please specify : About the Oracle DB, can we adopt the Public release	No. Only ORACLE
151	ITB 11.1 the vendor shall demonstrate experience of integration with at least two (2) type of HES of two (2) different manufacturers Please specify: About the docking of HES and MDMS, most suppliers only provide their own system, the MDMS will not interface with the other vender's HES system, so we think this requirement is not reasonable	The requirement is reasonable
152	9.9.8.2The MDMS shall connect to the Corporate WAN via a firewall to be supplied by the Supplier. Please specify: About the IT system, it is very complexed, it isn't easy to maintain, who will be responsible for the maintenance and operation (KPLC or the supplier)	Supplier will maintain the system. Refer amongst others clauses 3.3.1, 3.3.3, 9.9.6 and 9.8.1.9
153	6.4.2.2.14 The meter body dimensions shall not exceed: Height = 250mm; Width = 170mm; and Depth = 90 mm; Please specify: we think this requirement is not reasonable, because the most important point is the function, not the size	Refer Clause 6.4.2.2.14
154	Architecture and System Requirements. The messages and screens of the system shall be exhibited in the national language of the country; during the phase of acceptance test they may be exhibited in English or Spanish, but the final delivery must be in the national language of the country. Ask for clarification: Please clarify: what language shall be the final delivery in? English is ok?	Test shall be exhibited in English
155	7.5.8.2 down link communication : Single reading success rate: Minimum 99%. Ask for Clarification: Shall KPLC require bidders to supply testing report in real AMI case for the communication from 3rd party to show the communication method that bidder offer meet with 99% requirement?	Test reports and system features as per Annex 7-TS-Volume 2 Bid document.
156	9.9.3.1 The Supplier shall provide the servers that capable of handling ten (10) million metering points. Annex 6: Scalability. The Bidder shall simulate the system with 10 million metering points. Shall KPLC require real 10 million metering points test for the MDM?	Refer Annex 6 Vol. 2 Page 156
157	PLC/ GPRS communication between meters and data concentrator. Shall there by any technical requirement for the PLC to guarantee its communication performance?	The bidder to give communication mode features in annex 7 Vol.2
158	a) An archiving procedure should be implemented enabling efficient data storage for the time of at least 6 years, and subsequent transfer to storage media providing permanent storage. b) An archiving procedure should be implemented enabling efficient data storage for the time of at least 5 years, and subsequent transfer to storage media providing permanent storage. Ask for clarification: a) and b) is almost the same, how many years is the efficient data storage for?	Clause 9.8.16.3 (b) deleted. Refer Addendum 1
159	The concentrator shall be operated from main power with reference values of: - 3 x 57.7/100V to 230 V/400V, 3 x 1 (10) A at 50 Hz. Ask	DCU and meter to be combined

No.	Query	Response
	for Clarification: Combine data concentrator and CT meter together will increase the damage chance of Data concentrator since they will use same power source and also it not convenient for maintenance of data concentrator and CT meter. Shall it be acceptable to supply CT meter and data concentrator separately?	
160	The communication module shall support both SMS and GPRS modem and support the mode of: on line and on-demand on line. What are the functions of SMS and what scene is used of?	SMS are mostly used for text communications mostly tamper alerts.
161	Clause 10.3-Creation of one main MCC (Meter Control Centre) in Electricity house Nairobi for administration of Advance metering Infrastructure. The other Metering control centers shall be located in the regional headquarters (Nairobi, Nyeri, Mombasa, Kisumu, Eldoret and Nakuru) and will only work for monitoring and analyzing the data. The employer will provide the space, however the contractor shall carryout the necessary modifications for the requirements of the MCC.Shall KPLC give basic layout of the MMCC and RMCC and also the basic infrastructure information of MCC including power supply condition, Network condition? Can the RMCC only monitor and analysis the data which belongs to the regional meter?	Refer Clause 9.9.8.3. Regional Meter Data control center will be configured to analyze data in the respective region.
162	[13] IEC1901.2 standards for high speed (up to 500 Mbit/s at the physical layer) communication devices via electric power lines. Ask for Clarification: The description is incorrect as it is IEEE standard not IEC and it is 1901 standard for high speed (up to 500 Mbit/s at the physical layer) communication power lines.	Refer Addendum Clause 6.2 (13)
163	9.8 Meter Data Management System – Technical Characteristics. Ask for Clarification: Is it required that the line loss function included in the MDM system?	Refer Addendum1 9.8.1.34 and 9.8.1.35
164	5.5.2.4 The front cover may be of translucent material but shall have a window (clear glass or polycarbonate) for reading the display and for observation. Please confirm whether KPLC accept that front cover is of nontransparent material with one window of clear Polycarbonate for reading LCD display?	No. Clause 5.5.2.4 maintained
165	5.5.3.5 The RS485 communication interface should include at least a 4 digital outputs, isolated from all other meter circuits with fail-safe circuitry able to withstand AC 230V for 2 minutes without damage. Ask for clarification: The specification asks that RS485 communication interface should include at least 4 digital outputs, but not define the function of them. Can we understand that meter equip with one RS485 port, but has four export ports, like as AA BB.	Yes
166	5.5.10.3 The meters shall be capable of continuous display of the presence or absence of individual phase voltages. Ask for clarification: This section is about the presence or absence of individual phase voltage, is it the requirement for three phase four wire energy meter only? Is it acceptable that this requirement is not suitable to single phase meter?	No

No.	Query	Response
167	This is the first AMI project of Kenya. Considering that work will move slowly during this month, we need time to go to the site to implement the communication and installations for each transformer and control center. Hereby we would like to put forward Request for Extension of Closing Date by Five (5) weeks to 8 th May.	Extension granted for 22 calendar days. New closure date is Tuesday 25 th April, 2017. Time and venue remains the same.
168	Clause 2.3.2 Average Annual Turnover (page 47). Minimum average annual turnover of USD 63.3 Million. And Cash flow requirement Clause 2.3.3 Financial resources (page 48). Local contractors have been encouraged to participate in public projects but the financial requirements for this project is unnecessarily high. It will block many good local contractors to participate. We thus humbly as that the financial requirements of the tender be reduced to a reasonable level and it shall allow more bidders to participate and compete fully.	Refer Addendum 1. ITB 20.1, ITB 2.3.2 and ITB 2.3.3.

Yours faithfully,

For: **KENYA POWER & LIGHTING COMPANY LIMITED.**



Eng. MICHAEL ADHIAMBO
MANAGER-PROJECTS DEVELOPMENT

