



**TENDER NO. KP1/9AA-2/OT/36/HR/16-17
FOR
PROVISION OF BOREHOLE AT KENYATTA MARKET AND STIMA
MEMBERS' CLUB**

(E-PROCUREMENT TENDER OPENING SYSTEM)

**ALL TENDERERS ARE ADVISED TO READ CAREFULLY THIS TENDER
DOCUMENT IN ITS ENTIRETY BEFORE MAKING ANY BID**

NOVEMBER 2016

TENDER DOCUMENT FOR SUPPLY OF CIVIL WORKS

THE KENYA POWER & LIGHTING COMPANY LIMITED
CENTRAL OFFICE, STIMA PLAZA,
KOLOBOT ROAD, PARKLANDS,
P.O. BOX 30099-00100,
NAIROBI,
KENYA.

Telephones: +254-020-3201000; 3644000 Pilot Lines
Telephones: +254 -720-600070/1-5/; -733-755001/2-3 Cellular
Facsimile: +254-20-3514485
E-Mail 1: Bngugi@kplc.co.ke
E-mail 2: JOchieng@kplc.co.ke
E-mail 3: Pkatoni@kplc.co.ke
Website: www.kplc.co.ke

SECTION I - INVITATION TO TENDER

DATE: NOVEMBER 2016

TENDER NO. KP1/9AA-2/OT/36/HR/16-17 FOR PROVISION OF BOREHOLE AT KENYATTA MARKET AND STIMA MEMBERS' CLUB

- 1.1 The Kenya Power & Lighting Company Limited hereinafter referred to KPLC invites bids from eligible Tenderers for **Provision of Borehole at Kenyatta Market and Stima Members' Club**
Interested eligible Tenderers may obtain further information from the General Manager, Supply Chain, KPLC at Stima Plaza, 3rd Floor, Kolobot Road, P.O. Box 30099 – 00100 Nairobi, Kenya.
- 1.2 **Obtaining tender documents.**
 - 1.2.1 Tender documents detailing the requirements may be viewed at KPLC E-Procurement Web Portal found on the KPLC website (www.kplc.co.ke) beginning on **Friday 18th November, 2016**
 - 1.2.2 Prospective bidders may also download the tender document from KPLC's website (www.kenyapower.co.ke) free of charge.
- 1.3 **Submission of Tender documents**
Completed Tenders are to be **saved as PDF** documents marked **KP1/9AA-2/OT/36/HR/ 16-17 FOR PROVISION OF BOREHOLE AT KENYATTA MARKET AND STIMA MEMBERS' CLUB** and submitted in the KPLC E-Procurement Web Portal found on the KPLC website (www.kplc.co.ke) so as to be received on or before **2nd December, 2016 at 10.00 a.m.** (**interested bidders are requested to register with Kenya Power in the E-procurement**
- 1.4 Prices quoted should be net inclusive of all taxes and delivery costs to the required site (where applicable) and must be in Kenya Shillings or a freely convertible currency in Kenya and shall remain valid for One Hundred and Twenty (**120**) days from the closing date of the tender.
- 1.5 Tenders will be opened electronically promptly thereafter(**2nd December, 2016 at 10.30 a.m.**) in the presence of the Tenderer's or their representatives who choose to attend in KPLC Auditorium at Stima Plaza, Kolobot Road, Parklands, Nairobi.
- 1.6 **There will be a mandatory site/pre-bid meeting on 24th November, 2016 at Stima Club (Ruaraka) at 9.00a.m and Kenyatta Market same day at 2.00p.m.**



Kenya Power

Stima Club

REQUEST FOR PROPOSAL

RFP – HYDROLOGICAL SURVEY FOR KENYATTA MARKET (Lr No.98291/1/A) AND STIMA MEMBERS CLUB (Lr. No 8885- Ruaraka)

Document Release Date	:	18th November, 2016
Tender Closing Date	:	2nd December, 2016
Submission Method	:	<i>E-Procurement</i>
Tender Number	:	KPI/9AA-2/OT/36/HR/16-17
Tender Opening Venue and Time	:	STIMA AUDITORIUM
Tender Opening Venue and Time	:	Stima Plaza Auditorium
Sponsor	:	KENYA POWER
Project Market	:	Proposed Borehole at Kenyatta Market and Stima Members' Club

Table Of Contents

<u>1.0.</u>	<u>Introduction.....</u>	<u>5</u>
<u>2.0.</u>	<u>Aims and Objectives</u>	<u>5</u>
<u>3.0.</u>	<u>Current Situation.....</u>	<u>6</u>
<u>4.0.</u>	<u>Scope of the Assignment</u>	<u>6</u>
<u>5.0.</u>	<u>Deliverables</u>	<u>7</u>
<u>6.0.</u>	<u>Format of RFP Response and Other Information for Bidders</u>	<u>8</u>
<u>7.0.</u>	<u>Management of the assignment</u>	<u>14</u>

1.0. Introduction

The Kenya Power is in the process of implementing drilling and construction of boreholes both at Kenyatta Market and Stima Club - Ruaraka. The project entails the drilling of 2No. 300m deep boreholes, equipping it and improvement of the water supply which relies on the Nairobi Water & Sewerage Company Limited (NW&SC Ltd) as its main source of water. The water from the existing mains is unreliable and given the high consumption in both facilities this has necessitated the company to put urgent measure in improving water supply.

Part of the projects goal at the two facilities is to improve the operation of the water supply System by identifying alternative water sources which will simplify reliable, specifically exploring ground water which can be used without sedimentation and filtration.

This Request for Proposals (RFP) document is intended to lead to identification of a consultant to undertake a hydrological survey for the project

This document constitutes the formal Request for Proposals (RFP) and is being availed to bidders on the KPLC website; www.kplc.co.ke

1.1 Project Goal:

The goal of the project is to ensure the current water supply at Kenyatta Market and Stima Members Club is reliable and can provide the required service to the existing and new customers and improve the operation and maintenance of the facilities recreation features such as the swimming pool (at Stima Club) and the public health at the busy Kenyatta Market..

1.2 Locations:

The project is located in:

- i) For Kenyatta Market Kibera Sub Count and,
- ii) Ruaraka Sub-County

Both in Nairobi County and the proposed water sources to explore are the Tana Athi River basin's ground water. In view of this Kenya Power & Lighting Company would like to appoint a consultant to conduct hydrogeological survey investigations to ascertain the ground water potential in the area and propose if ground water exploration should be considered as an option to act as a raw water source for the treatment works.

2.0. Aims and Objectives

The purpose of this survey is to investigate possible lateral freshwater recharge from the Kenyatta Market's and Stima Club's environs and make recommendations on wide shallow well/well fields that may be considered to explore as an alternative water supply for the two facilities. The proposed survey will; therefore, go along in ensuring the suitability of the area for the ground water potential in order to drill a borehole in the compound. In addition the consultant will be required to submit comprehensive reports and facilitate the drilling and approval permits from the necessary authorities for the possible boreholes.

3.0. Current Situation

As above.

4.0. Scope of the Assignment

The Consultant is expected to use both primary and secondary data in the exercise to ascertain ground water potential. Secondary data will involve desk study of available information/data on existing boreholes, drill logs, reports and maps while primary data will be obtained by carrying out Hydro-geophysical measurements within the study area using the necessary hydro-geological surveying equipment. The Consultant is expected to have at this disposal and use for this exercise the new ABEM Terrameter SAS 1000, which distinguishes between clays and fresh water by use of Induced Polarization (IP) measurements. The specific activities shall include:

- Sign the terms of reference with the client
- Review of existing data, topographical maps, satellite images, existing studies and borehole site investigations in the area, geological reports and maps (if available), borehole and surface water records, etc
- Mapping out of the water supply and current ground water sources in the vicinity - establishing water demand and taking key information from existing ground water sources to determine ground water potential and water quality
- Hydro-geological fieldwork: Detailed reconnaissance survey of project area. (GPS coordinates/P-codes, water level measurements, condition of these boreholes, usage and performance where applicable) inspection of geological, geo-morphological and structural characteristics of the investigated area; verification of existing data and findings
- Conduct Hydrology, using up to date tools and equipments to ascertain the hydrogeology of the project area, previous ground water development, aquifer parameters, hydraulic conductivity (K) or the ground flux, ground water discharge, as well as estimating the mean annual recharge.
- Perform Geophysics relating to basic principles, and do more than three Vertical Electrical Soundings (**VES**) within the proposed area using the ABEM Terrameter SAS 1000, which distinguishes between clays and fresh water by use of Induced Polarization (IP) measurements
- Analyze the data aforementioned (hydrogeological/geophysical data) to assess the ground water potential in the project area.
- Make key recommendation on the viability of a borehole to be installed to act as water sources for the both Kenyatta Market and Stima Club.
- Check on site conditions including the availability of space for a drilling rig and other allied machineries to access the project area.

- Select the **MOST SUITABLE** borehole site within the project area subject to the above results and taking into account the water quality expected and the requirements of the Water Act, WHO, and other line ministries.
- Compile and submit to the client a comprehensive report, which shall include but not limited all the details of the above investigations. Consultant's recommendations on the proposed drilling sites shall be produced in a soft copy (in a flash disk) and other three hard copies of the geo-survey reports, of which one (for each site) shall be coloured.
- Make applications and obtain drilling/digging permits for the proposed ground water sources

4.1 Boreholes Siting: Geophysical & Hydro-Geological Surveys

The boreholes shall be sited with the aid of combined hydro-geological and geophysical surveys. Prior to the field investigations, a desk study shall be made of the available relevant information on hydrogeology, hydrology, climate, existing water sources, drilling records and other sources for the proposed area(s).

The field investigations **MUST** be undertaken by a senior hydro-geologist, assisted by highly qualified personnel in groundwater technologies with the use of an ABEM Terrameter SAS 1000. The senior hydro-geologist will be responsible for planning, execution and interpretation of all geophysical data, reporting and selection of the most suitable site for drilling. The Consultant is tasked to demonstrate the Senior Hydrogeologists technical qualification and experience to carry out this investigation and access to the required equipment to execute the works.

The site for selected development shall be marked with a concrete marker, shown in a picture plate and indicated on a sketch map to be included in the final report.

5.0. Deliverables

The report will be concise and limited to the significant hydro-geological issues. The main text will focus on background information from literature review, geology, hydrology, hydrogeology, water quality, geophysics, conclusion and recommended actions. The report will include supporting documents as necessary, e.g. summaries of the data collected and citations for any references used in interpreting those data. Annexes to the report should include a topographical map extract, borehole installation specifications and Bills of Quantities and/or Boreholes drilling & development specification and bills of quantities complete with cost estimates for the works.

The report shall be presented in draft and final version to the client.

The outline of the report should preferably follow the format below:

- Executive summary
- Introduction/Back ground (review of previous studies and environmental background)
- Terms of reference
- Geology, Hydrology & Hydrogeology (incl. inventory of boreholes and other water points, methods of investigations, including Geophysical Techniques)
- Detailed resistivity/IP survey (Wenner & VES) using the ABEM Terrameter SAS 1000 to delineate the productive aquifer
- Aquifer potential; sustainable yield & Water quality

- Proposed digging/drilling site
- Proposed digging/drilling method, and its applicability including the BOQ
- Specifications for the digging/drilling procedure and installation works
- Environmental impact and protection
- Conclusions and Recommendations
- Appendix
- Addendum
- References

Recommendations will be given on the most suitable site for shallow well digging/borehole drilling, the required depth, water quality, design and installation details, and other relevant aspects. Based on the available hydro-geological and geophysical data, an assessment of the anticipated chances of success shall be made for each individual site.

The hydro-geological report will give a detailed map delineating the investigated area, geology, aquifer properties (where known), location of measurements, and recommended drilling site. In addition, pictures taken during the actual field activity shall be included in the report.

All geophysical data, including its interpretation will be produced as an appendix to the final report.

6.0. Format of RFP Response and Other Information for Bidders

6.1.1. The overall summary information regarding the **Proposed Boreholes at Kenyatta Market and Stima Club** is given in section 2 –Aims and Objectives. The bidder shall include in their offer any additional services or items considered necessary for the successful completion of the project

6.1.2. *Proposals from bidders should be submitted in two distinct parts, namely **technical proposal** and **financial proposal** and these should be in two separate sealed envelopes, both of which should then be placed in a common sealed envelope marked:*

TENDER NUMBER: KP1/9AA-2/OT/36/HR/16-17

RFP – HYDROLOGICAL SURVEY FOR KENYATTA MARKET STIMA MEMBERS’ CLUB

The two separate inner envelopes should be clearly marked “**Technical Proposal**”, and “**Financial Proposal**”, respectively, and should bear the name of the Bidder.

6.1.3. The Technical Proposal should contain the following:

- 1) **Introduction:** description of the firm, the firm’s qualifications and statutory compliance

- 2) **Back ground:** Understanding of the assignment and relevant Comments to the TOR for consideration. Comments and suggestion of the consultant on the terms of reference, personnel, facilities and other requirements expected for the work
- 3) **Proposed methodology**
- 4) **Firms experience** in undertaking assignments of similar nature. Consultancies performed in the last 3 years especially in Arid and Semi-Arid Land (ASAL) with reference letters for each hydro-geological surveys consultancy - consultancies with similar technical complexity and nature would be an added advantage
- 5) **Proposed team** composition as per the template below and CVs of the Senior Hydrogeologist and other assisting hydro-geologists. Particulars of the consultant including curriculum vitae of the proposed experts and personnel to be included in the execution of the work. CVs and Proof of qualifications of the proposed personnel to undertake the works as per the table below
- 6) Any proposed staff to assist with qualifications and experience as per the table below:

Position	Required Qualification and Experience
Lead Expert-Hydro geologist	<ul style="list-style-type: none"> • B.SC Geology/Hydrology • Master's Degree in a relevant field will be beneficial • Registered with professional body • Have a current practicing certificate • Have at least 10 years' experience in similar works
Assistant Hydro geologist	<ul style="list-style-type: none"> • B.SC Geology/Hydrology • Registered with professional body • Have a current practicing certificate • Have at least 5 years' experience in similar works
Data analyst	<ul style="list-style-type: none"> • Undergraduate in any data analysis or science field • Well versed in GIS and Remote Sensing • At least 5 years' experience

- 7) **Work plan** (Gantt chart of activity and week of implementation)
- 8) Proof of works carried out previously in and around the targeted geographic location to demonstrate the Consultants familiarity with the target region
- 9) Proof of availability of all the equipment required to perform the survey, specifically the ABEM Terrameter SAS 1000.
- 10) Competence in all ground water exploration activities and registered by relevant professional body
- 11) Registered Hydrologist/Geologist/water resource expert
- 12) Experience in Ground Water Investigation/Sounding etc.

The assignment is expected to take a maximum of 14 days which includes desk-review, preparation, implementation and report-writing.

S/No.	No. of Days	Activity
Part I	3	Preparation and desk review
Part II	7	Implementation and field work
Part III	4	Analysis, Interpretation, Report writing

6.1.4. The Financial proposal shall clearly indicate the total cost of carrying out the is to investigate possible lateral freshwater recharge from the Kenyatta Market's and Stima Club's environs and make recommendations on wide shallow well/well fields that may be considered to explore as an alternative water supply for the two facilities and should be presented in the financial template as shown below.

The consultant shall only quote for the items below **Prices should be inclusive of 16% Value Added Tax (VAT).**

The Consultant will be fully responsible for recruitment, contracting and payment of costs for all the study team members involved at all levels, except otherwise stated by KPLC. The consultant will be responsible for their own costs such as meals, accommodation, communication (including internet). The consultant is responsible for arranging transportation to/from their Office.

Financial proposal to have the following:

1. A submission letter indicating the total fees
2. Summary of costs
3. Breakdown of fees per items of work and activities.
4. Breakdown of any reimbursable costs or expenses per activity.
5. Any miscellaneous expenses.

This shall be submitted in a separate envelope from that of the technical proposal.

Financial proposal summary Format

Item No	Item description	Unit	Qty	Rate	Amount
1	Preparation and presentations (involves Desk study, preparation of tools, and any other preliminary requirements)	days			
2	Field data collection (this include but is not limited to Literature Review, Electrical sounding, field visits, surveys, water sampling, soil sampling, community meetings, and any other filed activities)	days			
3	Data entry, data cleaning, analysis interpretation and recommendations, presentations and review of the report)	days			
4	Analysis and report writing (will involve all processes of report writing, presentation of drafts, receiving of comments from all stakeholders, reviews and final submission of reports)	days			
5	Transport costs from Nairobi to the Site for the consultants team	km	100		
6	Field accommodation of consultants' team for all the planned days.	Days			
7	Miscellaneous costs (Please specify)				
8	All the necessary approvals i.e. permits from WARMA,NEMA, NEWASCO,County Government etc.				
	VAT				
	Total				

Technical Proposal Evaluation Criteria

The technical proposal shall be evaluated on the basis of its responsiveness to the Terms Of Reference (TOR). Specifically, the following criteria shall apply:

Item No	Scoring parameter	Maximum Score	Conditions
1	Registration and legal documents	10	If no, automatic disqualification
	Technical capacity (as defined in Annex 3)		
2	a) Lead expert-Hydro geologist	20	Experience to constitute half the scores. If lesser experience then prorated score for half the score. And qualifications the other half. Lesser qualifications constitute no score - Methodology and understating of TOR will be judged by the written statements and oral presentation delivered.
3	b) Assistant Hydro geologist	10	
4	c) Data analyst	10	
5	Methodology and TOR understanding	20	
6	Equipment to Undertake the works	15	Evidence of the required equipment to carry out the works - ABEM Terrameter SAS 1000, GPS, measuring tapes etc
7	Past work done	15	To assess and score
	Total	100	

Bidders who score over **75%** will then proceed to the financial Evaluation

- 6.1.5. Bidders are requested to hold their proposals valid for ninety (90) days from the closing date for the submission. KPLC will make its best efforts to arrive at a decision within this period.
- 6.1.6. All costs pertaining to the preparation of a proposal and negotiations of a contract shall be borne by the firms submitting proposals.
- 6.1.7. Assuming that the Contract can be satisfactorily concluded, the bidders shall be expected to commence the assignment within one (1) weeks after the final agreement is reached.
- 6.1.8. If a bidding firm does not have all the expertise for the assignment, there is no objection to the firm associating with another firm to enable a full range of expertise to be presented.

The request for Joint Venture shall be accompanied with full documented details of the proposed association

6.1.9. In the case of a Joint Venture or Association, all the firms constituting the Joint Venture or Association will be jointly and severally liable and at least one firm in the Joint Venture or Association shall be financially capable of meeting the contract requirements and potential liabilities on its own and shall assume contracting responsibility and liability for satisfactory execution of the assignment.

6.1.10. The contracting arrangements shall define clearly the responsibilities and the services to be provided by each firm in the case of a joint venture.

Please read carefully the method of tender submission and comply accordingly. (The tender shall be submitted electronically. Interested bidders are requested to register With KPLC E-PROCUREMENT, Central Office. Any bidder facing challenges in the registration is requested to visit our offices in Stima Plaza 3rd floor, procurement section for assistance).

6.1.11. KPLC reserves the right to accept or to reject any bid, and to annul the bidding process and reject all bids at any time prior to the award of the contract, without thereby incurring any liability to any Bidder or any obligation to inform the Bidder of the grounds for its action.

6.1.12. Cost of bidding

The Bidder shall bear all costs associated with the preparation and submission of its bid, and the Organization will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

6.1.13. Clarification of Bidding Document

All correspondence related to the contract shall be made in English. Any clarification sought by the bidder in respect of the project shall be addressed at least **four (4) days** before the deadline for submission of bids, in writing to the Administration Coordinator.

The queries and replies thereto shall then be circulated to all other prospective bidders (without divulging the name of the bidder raising the queries) in the form of an addendum, which shall be acknowledged in writing by the prospective bidders.

Enquiries for clarifications should be sent by e-mail to addresses on the invitation page.

6.1.14. Amendment of Bidding Document

At any time prior to the deadline for submission of bids, KPLC, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, may modify the bidding documents by amendment.

All prospective Bidders that have received the bidding documents will be notified of the amendment in writing, and it will be binding on them. It is therefore important that bidders give the correct details in the format given on page 1 at the time of collecting/receiving the bid document..

To allow prospective Bidders reasonable time to take any amendments into account in preparing their bids, KPLC may at its sole discretion extend the deadline for the submission of bids based on the nature of the amendments.

6.1.15. Deadline for Submission of Bids

Bids are to be electronically submitted. Bidders are required to send their PDF documents to KPLC E-Procurement portal on or before 2nd December, 2016 at 10.00 a.m. Any bid received by KPLC after this deadline will be rejected.

6.1.16. Taxes and Incidental Costs

The prices and rates in the financial offer will be deemed to be inclusive of all taxes and any other incidental costs.

6.1.17. Responsiveness of Proposals

The responsiveness of the proposals to the requirements of this RFP will be determined. A responsive proposal is deemed to contain all documents or information specifically called for in this RFP document. A bid determined not responsive will be rejected by KPLC and may not subsequently be made responsive by the Bidder by correction of the non-conforming item(s).

6.1.18. Currency for Pricing of Tender

All bids in response to this RFP should be expressed in **Kenya Shillings**. Expressions in other currencies shall not be permitted.

6.1.19. Evaluation and Comparison of Bids

Technical proposals will be evaluated prior to the evaluation of the financial bids. Financial bids of firms whose technical proposals are found to be non-qualifying in whatever respect may be returned unopened.

6.1.20. Confidentiality

The Bidder shall treat the existence and contents of this RFP, and all information made available in relation to this RFP, as confidential and shall only use the same for the purpose for which it was provided.

The Bidder shall not publish or disclose the same or any particulars thereof to any third party without the written permission of KPLC, unless it is to Bidder's Contractors for assistance in preparation of this Tender. In any case, the same confidentiality must be entered into between Bidder and his Contractors.

7.0. Management of the assignment

Role of KPLC

The KPLC will provide all logistics in the field, relevant programme documents and be the link between the consultant and the proposed water project target communities & stakeholders. KPLC will also review all documents and provide feedback in the study process and after. The consultant will be responsible for guiding the entire study process and all other specific responsibilities as stipulated in the TOR.