



## **Requirements**

**REQUEST FOR EXPRESSION OF INTEREST  
DEVELOPMENT OF TERMS OF REFERENCE FOR CHARACTERIZATION OF  
SITES FOR NUCLEAR POWER PLANTS IN KENYA.  
(TENDER NO: KNEB/DTA/EOI/01/2018/2019)**

## **A. INVITATION TO TENDER**

**DATE: 6<sup>th</sup> NOVEMBER 2018**

**TENDER NO: KNEB/DTA/EOI/01/2018/2019 ON DEVELOPMENT OF TERMS OF REFERENCE FOR CHARACTERIZATION OF SITES FOR NUCLEAR POWER PLANTS IN KENYA**

**1.1** The Kenya Nuclear Electricity Board herein referred to as KNEB is seeking Expressions of Interest (EOI) from suitable technology, consulting, or consortium for development of Terms of Reference for Site Characterization for Nuclear Power Plants in Kenya. Tenderers may obtain further information from:

The Procurement Manager,  
KNEB at Block C Kawi House, Off Red Cross Road,  
P.O. Box 26374-00100, Nairobi, Kenya.

Telephones: +254-20-5138300

### **1.2 Submission of Tender Documents and closing date**

Completed tender documents should be enclosed in plain sealed envelopes bearing no identification of the Tenderer and clearly marked only as:-

“Tender No: TENDER NO: KNEB/DTA/EOI/01/2018/2019- EOI for Consultancy Services for Development of Terms of Reference for Characterization of Nuclear Power Plant Site(s) in Kenya”

with the instructions “Do not open before 29.11.2018 at 10.30 a.m. and addressed to:

The Chief Executive Officer,  
The Kenya Nuclear Electricity Board.,  
Kawi complex, off Red Cross road  
P O Box 26374-00100  
NAIROBI – KENYA.

and dropped into the Tender Box located at the main reception of Kenya Nuclear Electricity Board on 2nd Floor Kawi Complex , wing “C” so as to reach the office on or before the closing date on 29.11.2018 at 10.30 a.m. (East African time).Tenders will be opened shortly after the deadline.

### **1.3 Tender Opening**

The EOI shall be opened immediately thereafter in the main boardroom located at 4<sup>th</sup> floor Kawi Complex , wing “C” in the presence of applicants who may choose to attend. Late bids shall not be accepted.

Any Queries and clarification should be directed to:

THE PROCUREMENT MANAGER  
THE KENYA NUCLEAR ELECTRICITY BOARD  
KAWI COMPLEX, OFF REDCROSS ROAD  
P. O. Box 26374-00100  
**NAIROBI**

Telephones: +254-20-5138300  
E-mail 1: Hotieno@nuclear.co.ke  
E-mail 2: kanakoli@nuclear.co.ke  
Website: [www.nuclear.co.ke](http://www.nuclear.co.ke)

## **B. BACKGROUND**

The national electricity demand is projected to increase significantly in the near future as Kenya gears towards a middle income economy. Kenya's development blueprint, The Vision 2030, has identified energy as a key driver for sustainable growth. The energy sector is expected to provide adequate, affordable and reliable supply of energy to meet the development needs of the country.

Kenya's Least Cost Power Development Plan projects a considerable increase in peak power demand by the year 2030 as a result of the rapidly increasing use of electricity for industrial, commercial and household use. This has created the need to enhance and diversify national power generation and supply by identifying new generation and supply sources that will produce energy that is affordable, reliable clean and sustainable. Nuclear energy provides such an option as it is an optimal energy source for base load operation, is efficient and most importantly, reliable.

The Government of Kenya has decided to incorporate nuclear power as one of the technologies of choice for satisfying future electricity demand. This is backed by the fact nuclear power provides safe and reliable electricity production at a reasonable and competitive price, while providing independence from fossil fuel and associated price fluctuations. Uranium fuel represents a relatively small fraction of the total cost of nuclear plants' electricity production. As a result electricity production costs from nuclear plants are not volatile compared to fossil-fuel based plants.

Kenya Nuclear Electricity Board (KNEB) is established under the Kenya Nuclear Electricity Board Order 2012 pursuant to the provisions of the State Corporations Act, Cap 446 of the Laws of Kenya. KNEB's primary function is to promote and expedite the development of nuclear electricity in Kenya.

One of the functions of the board is to identify appropriate sites in Kenya for the construction of nuclear power plants and related amenities. To achieve this mandate, KNEB has established a multidisciplinary Site Selection Team that has developed the Criteria for Siting of Nuclear Power Plants in Kenya. The Site Selection Team also conducted site visits to the potential sites in the regions of interest, and has embarked on a program for ranking the sites.

In order to comply with relevant national and international codes, regulations and standards, KNEB is subjecting the Nuclear Power Programme to a meticulous Site Selection Process. The siting process is conducted to determine the most suitable site for the construction and safe operation of a nuclear power plant. The Comprehensive Terms of References for site characterization of nuclear power plants in Kenya will ensure that all relevant technical and environmental issues relating to site characterization of nuclear power plants are integrated in the site evaluation process.

Nuclear power however has unique characteristics that impact the environment, such as radioactive waste and spent fuel management, thermal releases, complexity in the amount of time required for construction, the distance of cooling water intake, geotechnical hazards, requirements for heavy haul roads, the international interest, quality assurance requirements and decommissioning. These issues should be analyzed comprehensively in the context of Kenya's Siting Process.

### **C. OBJECTIVES**

The main objective of this consultancy shall be to develop the Terms of Reference for engagement of a suitable Consultant to carry out site characterization for Nuclear Power Plants in Kenya in accordance with the relevant national and international codes, regulations and standards.

### **D. SCOPE OF THE ASSIGNMENT**

The objective of this work is to develop the Terms of Reference for engagement of a suitable Consultant to carry out site characterization for Nuclear Power Plants in Kenya. The scope of the assignment shall be to develop the Terms of Reference for site characterization for NPPs in Kenya. This shall include a comprehensive description of all activities that need to be undertaken by the consultant during site characterization. This shall also take into account training needs assessment and training of SST members from the Board. The Terms of Reference shall also provide specific timelines and milestones from signing of the contract to completion of the project.

**E. METHODOLOGY**

Standard techniques and best practices shall be used including use of checklists, case comparisons, literature review and consultations in order to generate the Terms of Reference.

**F. THE STUDY TEAM**

A multidisciplinary team of experts who have expertise in, but not limited to; Earth Sciences, Civil/Geotechnical/Nuclear engineers, Environmental specialists and Meteorology experts registered by the relevant accredited professional bodies shall be required to develop the TORs. Detailed CVs and relevant registration body certificates for the team shall be availed to the board.

**G. EXPECTED OUTPUTS**

The expected outputs of this assignment shall include the following:

- i. Inception Report
- ii. Draft TORs.
- iii. Final TORs.

**H. TIMING/REPORTING/QUALIFICATION REQUIREMENTS**

The assignment shall take four (4) months from the time of signing of contract up to the time of completion of the Final TORs report which shall include verification of inputs from KNEB. The Consultant shall provide qualified staff with relevant experience of not less than 10 years in NPP site selection and characterization for the Team Leader and at least 5 years of similar experience for the additional core staff.

**Consultant Personnel**

<b>Professional Specialization</b>	<b>Minimum Years of Experience in Specialization</b>
Team Leader	10 years field experience in NPP site selection and characterization with 4 years as the Lead Expert

Team members	5 years of similar experience in NPP site selection and characterization
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The qualified firm must meet all the legal requirements to operate in Kenya, and shall show proof of previous work in site characterization for nuclear power plants.

The Consultant shall be required to prepare and submit the following reports to KNEB:

**I. Inception Report**

The consultant shall be required to provide (3) copies of inception report (I.R) not later than week three (3) to the Board for approval. The inception report shall include detailed program for the scope of work involved in the assessment, a detailed schedule for all work, including field work related to applicable tasks. The inception report shall also include the fulfillment of the conditions listed in this TORs and approaches to be utilized in the development of the assessment.

**II. Draft TORs**

The Consultant shall provide Two (2) copies of the draft TORs for site characterization of Kenya’s nuclear power plant Proposed and Alternate sites by the end of Week nine (9) after signing of the contract.

**III. Final TORs**

The Consultant shall provide three (3) copies of the final TORs for Site Characterization of Kenya’s nuclear power plant Proposed and Alternate sites by Week sixteen (16) after signing of the contract.

**IV. Verification and validation Meetings**

The Consultant shall facilitate periodic TORs review workshops.

**I. FACILITIES AND COUNTERPART PERSONNEL TO BE PROVIDED BY THE CLIENT**

The Client shall provide the Consultant with counterpart and liaison staff.

## **J. IMPROVEMENT OF TORs**

The Consultant may offer suggestions and improvements in the Terms of Reference, which he considers would result in better implementation of the project. Such proposals when accepted will form part of the Terms of Reference of the proposals submitted by the consultant. The effect on the time and cost estimates given under the above clause shall be clearly identified.

## **K. ELIGIBILITY OF THE CONSULTANT**

Submission of the EOI will not constitute a bid. The information submitted in the EOI will be solely used by KNEB for the purpose of completing its prequalification exercise and thereafter in the preparation of the Request for Proposal (RFP) document. Eligible and reputable partners or consortia who wish to be shortlisted must provide adequate information regarding their company profile, qualification and competence to undertake such a project and specific experience in performing similar work projects.

In addition the firms/consultants must meet the following minimum criteria:

- a. Provide proof of statutory registration documents in their respective countries.
- b. Provide detailed company profile including CVs of lead consultant and other key personnel as prescribed in *Para. H* above. Physical address and Telephone contacts should be provided.
- c. Must be familiar with national and international nuclear regulations and environmental management laws, policies and practices.
- d. May associate with other Consultant(s) in a joint venture or subcontract, as appropriate.
- e. International consultant(s) may seek the participation of local Consultant(s) by entering into a joint venture with, or subcontracting part of the assignment to a national Consultant(s).
- f. Majority of the key professional staff proposed shall be permanent employees of the firm or have an extended and stable working relationship with it.



This invitation for EOI shall lead to short listing of eligible consultant who will then be invited to submit proposals to carry out the assignment. The invitation will be through the RFP that will be sent to them.

## **L. EVALUATION PROCEDURE & CRITERIA**

The evaluation of the EOI will be carried out one stage as per the prequalification criteria. The bidders who wish to be shortlisted must provide adequate information regarding their company profile, qualification and competence to undertake such a project and specific experience in performing similar work projects. The evaluation stage will result in the short listing of the bidders who will proceed to the next stage.

The purpose of the evaluation is to determine the substantial responsiveness of each bidder based on the contents of their EOI response itself without recourse to extrinsic evidence. This is to ensure that the bidders have responded to the key requirements of the EOI as stated in the prequalification criteria. Only bidders who score 80% and above will be invited to submit a Technical and Financial proposal through an RFP.

Evaluation of duly submitted tenders will be conducted along the following stages: -

### **Part 1 - Preliminary Evaluation.**

These are mandatory requirements. This shall include confirmation of the following:-

- i. Submission and considering the following:-
  - a) Company or Firm's registration/incorporation certificates
  - b) Detailed Company Profile, Physical address and Telephone Contacts
- ii. Submission of copies of the following documents in respect of each and all Tenderer's personnel who will be dedicated to this Tender if successful –
  - a) Detailed Curriculum Vitae (C.V.)
  - b) Employment Contracts or Service Level Agreements
  - c) Academic certificates (from Undergraduate level and above)
  - d) Professional Qualification certificates

Tenders will proceed to the Technical Evaluation Stage only if they qualify in compliance with **Part 1 above.**

## **Part II – Technical Evaluation**

### **Sub-Part A - Verification of Information and Documentation**

1. Relevant requested certificates and or documents
2. Any other details required in the Tender

### **Sub-Part B - Detailed Evaluation (Scoring Criteria)**

#### **1. Summary**

- 1.1 Technical Proposals will be evaluated using the Table 1 outlining the criteria.
- 1.2 To assist the bidders in responding, the bidders may be guided, use or adopt the Table 1 below when responding to Sub-Part B.
- 1.3 In any event, where the bidder adopts any other mode of responding, the format and content of its response should be in summary, specific to the criterion in question, avoid as far as possible extensive use of prose, unnecessary literature or marketing material.

#### **2. General /Guidelines to Sub-Part B**

- 2.1 These notes (in bold below) apply generally across the board to Table 1.
- 2.2 They are in addition to the specific notes/guidelines for in Table 1.

#### **3. Curriculum Vitae (CV)**

- 3.1 Some Consultants or their staff may have long chequered careers and experience. However, all Consultants and team members are strongly advised to furnish their CV's in the format provided and which should not be more than two (2) single sided A4 size pages at font 12.
- 3.2 Any information in the CV that is beyond the 2 pages may stand disregarded for purposes of evaluation.
- 3.3 Any CV that is not signed by both the owner of the CV and the person authorized to sign the tender may be disregarded. Where the owner and authorized person are the same, the signature by such same person will suffice.

#### **4. Combining Information in Single Document**

- 4.1 KNEB recognizes that there could be several documents which are required to be authored by the bidder whereas the information may be combined in one document or letter. Where the bidder feels that the information may be adequately contained in one letter or document, the bidder may do so. The bidder must state that the information variously requested is in the submitted single letter or document and identify that document or letter.
- 4.2 Where the bidder exercises this option of combining, care must be taken to ensure that all the information required of the several separate documents is included in the composite letter or document.
  - 4.2.1 No information sought should be omitted at all.
  - 4.2.2 The requirements as to several signatures in the different documents may be dispensed with. Instead a single signature (and co-signature where required) all on each printed page of the letter or document may suffice.

**5. Staff's Nature of Engagement with the Consultancy Firm**

- 5.1 It is recommended that the staff including the Team Leader be permanent employees or at least have an extended and stable relationship with the firm.

**6. Qualification and Scoring**

- 6.1 To qualify for further evaluation, the bidder ought to score a minimum of **80 marks**.
- 6.2 To earn any mark,
  - 6.2.1 The firm's must satisfy each and every tenet of each criterion to obtain the full award or marks for that particular criterion.
  - 6.2.2 Where any single tenet is not fulfilled for any criterion, the marks may not be awarded.
- 6.3 Where after completion of all calculations and the Grand Total in the tables is obtained that contains a decimal mark, such decimal will be rounded off to the nearest whole. Where the decimal mark is not decimal five (0.5), this shall be treated as a full mark upwards.

**Table-1 Evaluation Criteria**

<b>1</b>		<b>PRELIMINARY</b>	<b>FULLY COMPLY</b>	<b>DOESN'T COMPLY</b>
	a)	Copy of registration/incorporation certificates		
	b)	Detailed Company Profile, Physical address and Telephone Contacts		
<b>2.</b>		<b>TECHNICAL CRITERIA</b>		
			<b>MARKS</b>	<b>SCORE</b>
	a.	The firm's general experience in the field of assignment. The core team will be composed of leading experts with a team leader who has expansive international experience and has undertaken similar work. i) Specific experience of the consultant related to the assignment. (5 points for each client reference for a maximum of 4 clients). ii) Relevant experience in carrying out same exercise (No.of years/10years)*10Marks.Minimum10 years' experience	<b>20</b>	
			<b>10</b>	
<b>3.</b>		The adequacy of the proposed work plan and approach in the TOR		
		<b>a. Methodology</b> <ul style="list-style-type: none"> <li>• Understanding the TOR (4Marks).</li> <li>• Conformity to the TOR (4Marks).</li> <li>• Consultant's initiative and improvement on the TOR (4Marks).</li> <li>• Completeness of description of methodology (3Marks).</li> </ul>	<b>15</b>	
		<b>b. Work plan</b> <ul style="list-style-type: none"> <li>• Effectiveness of the work plan and the time frames (3Marks).</li> <li>• Duration(2Marks)</li> </ul>	<b>5</b>	
		<b>c. Organization and staffing</b>	<b>5</b>	

<b>3</b>		Qualification, Experience and competence of key Personnel		
		a) Team Leader	<b>9</b>	
		b) Engineer(Nuclear, Geothermal, Civil)	<b>9</b>	
		c) Geologist/Seismologist	<b>9</b>	
		d) Environmental and Social Expert	<b>9</b>	
		e) Other Key Staff	<b>9</b>	
		<b>TOTAL MARKS</b>	<b>100</b>	

**Only bidders who meet 80 percent on the technical score will be invited for presentation**

