



**EXPRESSION OF INTEREST FOR CONSULTANCY SERVICES FOR THE FEASIBILITY STUDY OF
OLKARIA VII-83MW GEOTHERMAL POWER PLANT IN OLKARIA FIELD
(OPEN INTERNATIONAL)**

TENDER REFERENCE: KGN-BDD-06-2021

The Kenya Electricity Generating Company PLC (KenGen) invites expression of interest from eligible consultancy firms to carry out a Feasibility Study for an 83MW Geothermal Power Plant in KenGen Olkaria field whose specifications are as follows:

1.0 GENERAL INFORMATION

KenGen is a Public limited liability company, registered under the Companies Act of the laws of Kenya. The Company was incorporated in 1954 with its core business being development, management and operation of power generation plants. KenGen is listed on the Nairobi Stock Exchange and it is owned 70% by the Government of Kenya, and 30 % by the public.

Kenya Electricity Generating Company PLC (KenGen) is the leading power generating company in Kenya. The Company has a total installed capacity of 1, 811 MW comprising of Hydropower 825.69 MW, Geothermal -706.13 MW, Thermal 253.5 MW and Wind 25.5 MW. As part of the Company's strategy and in line with the national electricity master plans, KenGen intends to develop Olkaria VII-83MW Geothermal Power Plant in Olkaria field.

2.0 SCOPE OF THE FEASIBILITY STUDY

The consulting services ("the Services") will be for an estimated period of 8 months and the scope of services include but not limited to the following:

- i. Analysis of the well flow data for the wells assigned to Olkaria VII project development, determination of the optimal capacity for the proposed plant and depending on the characteristics of the wells, carry out technology options analysis, identify the suitable technology, optimum plant layout and location.
- ii. Identify a suitable site for the power plant;
- iii. Carry out site investigations that will include topographical survey and preliminary geotechnical investigations;
- iv. Undertake a power evacuation study that will involve power systems simulations for load flow, fault analysis and system stability;
- v. Develop a conceptual design for the proposed power plant and associated infrastructure including the steam delivery, brine system and power evacuation system;
- vi. Carry out Preliminary Environmental and Social Impact Assessment (PESIA);
- vii. Undertake financial and Economic Analysis and determine the LCOE;
- viii. Carry out a risk analysis and mitigation; and
- ix. Transfer of knowledge to client's counterpart personnel.

3.0 DOCUMENTATION REQUIREMENTS

- a) Provide the requirements below;
 - Name of firm
 - Postal address
 - Physical address
 - Telephone number
 - Email Address
 - Contact person
- b) Certificate of incorporation (and any certificate of change of name), certified by an authorized representative of the bidder or (as the case may be) the consortium member
- c) Certified copies of Memorandum/Articles of Association for all consortium members
- d) Audited Financial Statements for the last 3 years for each consortium member including Tax registration and Tax compliance certificates or equivalent documents applicable in the bidder's Country of origin; (the minimum average annual Turnover for the consultant must be Kenya Shillings 100 Million (1 Million USD) or equivalent
- e) List of consultancy services on Geothermal Feasibility studies, power plant design assignments in geothermal and any feasibility study for a geothermal power plant carried out in the last 10 years. Including a brief description of the study (scale and scope) and the status of the projects;
- f) Where the Applicant is a consortium, a list of the proposed members of the consortium and the proposed Leader of the consortium. (Attach consortium agreement)
- g) All the members of the consortium must meet the EOI requirements
- h) Information regarding any current litigation involving the consulting firm certified by a reputable law firm

4.0 ELIGIBILITY REQUIREMENTS

It is anticipated that Consultants responding to this EOI will be from an individual firm or a consortium (with one firm designated as the lead firm).

- The consultant team should have references for consultancies carried out for geothermal power plant feasibility studies including steam & brine gathering systems, design, and operation of geothermal power plants.
- The Team Leader should be from the lead firm and should have a track record in preparation of geothermal power plant feasibility studies.
- It is further anticipated that local consultants will also be incorporated in the consultant team to meet the statutory local content requirement.
- Detailed references (or letters of commendation) of consulting assignments successfully carried out and certified curriculum vitae of key staff submitted.
- Interested consultants must provide information indicating that they are qualified to successfully undertake the feasibility study. Interested eligible consulting firms must meet the following minimum criteria:
 - Demonstrate ability and capacity to undertake the assignment; this should include evidence of experience in similar assignments with appropriate references and availability of qualified staff.

- Have undertaken at least two feasibility study assignments for development of geothermal power plant(s) in the last 10 years and demonstrate at least 10 years of experience in designing geothermal power plants, operation, steam delivery/brine disposal systems and associated grid connection facilities;
- Demonstrate at least 10 years of experience in consulting services for geothermal resource assessment (attach a list of at least two completed projects). Demonstrate experience in feasibility study of both wet and dry cooling tower types in geothermal power plants as well as binary systems
- In addition to the firm's experience, provide a list of at least 8 proposed professional staff and disciplines expected to take part in the feasibility study.
 - The team must include a team leader with at least 15 years of experience in geothermal power plant feasibility studies, and
 - other experts with at least 10 years of experience (Mechanical Engineer, Power systems Engineer, Geothermal Reservoir Expert, Civil & structural Engineer, Environmental and Social Scientist, Geo-chemist, Financial analyst, geotechnical surveyor, Topographical surveyor among others). The CVs of all the proposed key experts must demonstrate their relevant experience in carrying out feasibility studies for geothermal power plants.

(Detailed CVs must be attached)

A Consultant will be selected in accordance with the **Quality Based Selection (QBS) method** set out by KenGen.

5.0 CLARIFICATIONS

The interested parties may request for clarifications on this Pre-Qualification up to Ten (10) calendar days before the Pre-Qualification submission deadline.

Any updates on this EOI will be posted on the KenGen website (<http://www.kengen.co.ke/tenders>)

Any request for clarification must be sent in writing by paper mail, or electronic mail to:

Supply Chain Director
 Kenya Electricity Generating Company PLC,
 KenGen RBS Building, 9th Floor next to Stima Plaza III,
 Kolobot Road, Parklands,
 P.O. Box 47936 – 00100,
 Nairobi, Kenya.
 Tel: +254-20-3666230/+254 – 20 - 3666421
 Email: tenders@kengen.co.ke
 CC: jnjeru@kengen.co.ke; fmakhanu@kengen.co.ke; fkamanja@kengen.co.ke;
mogonji@kengen.co.ke;

6.0 EOI SUBMISSION

The EOI (1 Original and 3 copies) should be submitted in a sealed envelope by 1400 hours (East African Time) on **29th September, 2021** to the following address:

Supply Chain Director,
Kenya Electricity Generating Company PLC,
KenGen RBS Building, 9th Floor next to Stima Plaza III,
Kolobot Road, Parklands
P. O. Box 47936 - 00100,
Nairobi, Kenya.
Tel: + 254 20 3666230;

Information on the outer envelope should also include:

Confidential, KGN-BDD-06-2021 - CONSULTANCY SERVICES FOR THE FEASIBILITY STUDY
FOR OLKARIA VII-83MW GEOTHERMAL POWER PLANT IN OLKARIA FIELD: Do not open
before **29th September, 2021 at 1430 hours.**

The bid document must be dropped in the tender box located on the ground floor of Stima Plaza Phase III.

Tenders will be opened immediately thereafter in the presence of bidders representative who choose to attend at Pension Plaza III sixth floor or alternative venue which will be communicated by the Procuring Entity.

Only firms prequalified under this procedure will be invited to submit their proposal.

KenGen reserves the right to accept or reject any or all applications without obligation to assign any reason for the decision.

SUPPLY CHAIN DIRECTOR