



**EXPRESSION OF INTEREST (EOI) FOR CONSULTANCY
SERVICES FOR PRE-FEASIBILITY STUDY ON DEVELOPMENT
OF SMALL HYDRO POWER PLANTS AND
REHABILITATION/REDEVELOPMENT OF KENGEN SMALL
HYDROPOWER PLANTS
(Open International)**

(TENDER REF: KGN-BDD-007-2024)

1.0 General Information

Kenya Electricity Generating Company PLC (KenGen) is the leading power generating company in Kenya with an installed capacity of 1,904MW comprising of Hydropower (825.73MW), Geothermal (799MW), Thermal (253.5MW) and Wind (25.5MW). The Company's strategy is to increase its generation capacity through renewable energy sources that include optimisation of existing renewable resources in Geothermal and Hydro.

KenGen operates nine (9) hydropower stations with capacity of more than 10MW each and a combined capacity of 814MW. KenGen also operates five (5) Small hydro plants with a total installed capacity of 11.73MW.

KenGen plans to review some of its small hydropower schemes with a possibility of rehabilitation or redevelopment. The review will determine which plants can be rehabilitated or redeveloped with an option of using such technology that minimizes power plant footprint and has a shorter project delivery period. KenGen, therefore, intends to procure a consultant to carry out this scope of work and offer expert advice on the same.

KenGen has also identified several sites spread out across the country that have potential for installation of small hydro power plants. KenGen therefore intends to procure a consultant to undertake a study on the viability of these sites for installation of hydro power plants. KenGen also aims to investigate the viability of installation of Compact Hydro Power Plants (CHPP), Small Modular Hydro (SMH), E-flow turbines among other hydro technologies in these proposed small hydro power stations.

2.0 Objectives of the Pre-feasibility study

- a) To carry out a detailed assessment of the existing small hydropower plants to review the rehabilitation requirements and possibilities of redevelopment. Specific objectives will include:
 - i) Continued operation with the current operating and maintenance regime.
 - ii) Rehabilitation to re-establish the scheme designed capacity.
 - iii) Redevelopment to increase power and energy production from the scheme using technology such as CHPP, SMH or other technologies as may be appropriate.

- b) To carry out a detailed study to determine the overall feasibility for the development of Small Hydropower Projects across the country taking into consideration technologies such as CHPP, SMH or other technology options available.

3.0 Scope of Work

- a) Undertake detailed plant investigations for existing plants that will include but not limited to operational and maintenance status, financial performance, civil and electro-mechanical condition of the plants, hydrological assessment, water storage requirements, environmental scoping, and proposed improvements.
- b) Offer expert advice on various alternative options, KenGen proposals and future operational recommendations for each of existing small hydropower scheme.
- c) Review all the existing information, reports, and studies relevant to the proposed potential hydro sites in the country that KenGen has identified to determine their technical feasibility.
- d) Carryout detailed investigations for the proposed potential small hydro sites that will include but not limited to geotechnical investigations, topographical surveys, hydrometeorological assessments, and environmental scoping.
- e) Carry out for each site a preliminary Environmental and Social Impact Assessment (PESIA) study in compliance with Kenyan laws and regulations and prepare a Stakeholder Engagement Plan commensurate with potential project impacts.
- f) The consultant shall carry out basic designs of all project features and prepare a project implementation plans for the proposed projects.
- g) Develop and compare the various alternative options of implementing the projects and for each site, do a comparative ranking of all the projects alternative options based on the economic and financial analysis.
- h) Carry out an in-depth Financial and Economic analysis of the projects alternatives and develop robust financial projection models for each of the plants.
- i) For each site depending on the most suitable option, the consultant shall prepare conceptual designs for power plants and cost estimates and implementation schedules for power plant and associated works.

4.0 Evaluation Criteria

Interested consultants must provide information and documentations indicating that they are qualified to successfully undertake the feasibility study. Shortlisting of consultants will be based on the following:

- (i) Provide the requirements below.
- Name of firm
 - Postal address
 - Physical address
 - Telephone number.
 - Email Address
 - Authorized representatives' names (s) and position(s)

- (ii) 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.
- (iii) Certified copies of Memorandum / Articles of Association.
- (iv) Financial Statements for the last 3 years including Tax registration and Tax compliance certificates or equivalent documents applicable in the bidder's Country of origin. (For consortium arrangements, each member must meet the requirements).
- (v) List of consultancy services on Hydropower Feasibility studies of at least 5MW, power plant design and feasibility studies for brown field hydro power plants, design and construction carried out in the last 15 years. Including a brief description of the study (scale and scope) and the status of the projects.
- (vi) Where the Applicant is a consortium, a list of the proposed members of the consortium and the proposed Leader of the consortium and the roles of each member.
- (vii) Demonstrate comprehensive and proven knowledge of hydro Power Plants operations.
- (viii) Experience in a feasibility study for a brown field hydro power plant will be an added advantage.
- (ix) Experience in small hydro technologies such as compact hydro, small modular hydro e flow turbines will be an added advantage.
- (x) Provide a list of proposed professional staff and disciplines expected to take part in the feasibility study, including but not limited to a Power systems Engineer, Power plant engineer, Mechanical Engineer, Civil & Structural Engineer, hydrologist, hydraulics engineer, Geotechnical engineer, Topographical surveyor, Environmental and Social scientist, Financial/Economic analyst all with a minimum of fifteen (15) years relevant experience and a Team Leader, with a minimum of fifteen (15) years' experience in project management, design, construction and operation of hydro power plants and Feasibility studies on hydro power plants
- (xi) Demonstrate a strong financial status by positive cash flows, minimum average annual turnover of over USD 1 Million and profitability for at least 3 years.

5.0 CLARIFICATIONS

The interested parties may request for clarifications on this Expression of Interest up to ten (10) days before the EOI submission date. Any request for clarification must be sent in writing by paper mail, or electronic mail to:

**General Manager, Supply Chain Management,
Kenya Electricity Generating Company PLC,
RBS PENSION PLAZA I, Kolobot Road, Parklands,
P.O. Box 47936 – 00100,
Nairobi, Kenya.
Tel: +254-20-3666427
Email: tenders@kengen.co.ke;
CC: fkamanja@kengen.co.ke; skirui@kengen.co.ke; pwanyoike@kengen.co.ke**

6.0 EoI SUBMISSION

The EOI documents made in English must be received in a plain sealed envelope on or before **20th May, 2024 at 1400hrs East African Time** and delivered or registered to:

**General Manager-Supply Chain Management,
Kenya Electricity Generating Company PLC,**

**9th Floor, KenGen Pension Plaza II,
Kolobot Road, Parklands,
P.O. Box 47936-00100
Nairobi, Kenya.**

Information on the outer envelope should also include: **“KGN-BDS-007-2024- EXPRESSION OF INTEREST (EOI) FOR CONSULTANCY SERVICES FOR PRE-FEASIBILITY STUDY ON DEVELOPMENT OF SMALL HYDRO POWER PLANTS AND REHABILITATION/REDEVELOPMENT OF KENGEN SMALL HYDROPOWER PLANTS**

Do not open before **20th May, 2024 at 1400hrs East African Time.**”

Bidders should submit **one original and 2 (two) Copies** of the EOI.

The EOI documents should be dropped at the tender box located on Ground Floor at KenGen, RBS building. Bids that cannot fit in the tender box should be submitted to the General Manager, Supply Chain’s Office located on the 9th Floor KenGen RBS Building on or before the submission deadline. The EOI will be opened on the same day in public at **1430hrs East African Time** at KenGen RBS Building, 6th Floor in the presence of bidders’ representatives who choose to attend.

The Expression of Interest can also be viewed and downloaded from our website www.kengen.co.ke.

Bidders are advised to be checking the website from time to time up to Seven (7) days before submission date for any uploaded information through clarification/addendum.

Only firms pre-qualified under this procedure will be invited to submit their Technical and Financial proposals under the Request for Proposals (RFP).

KenGen reserves the right to accept or reject any or all applications without the obligation to assign any reason for the decision. Only individuals pre-qualified under this procedure will be issued with the Request for Proposal (RFP) and be invited to submit their technical and financial proposal.

GENERAL MANAGER, SUPPLY CHAIN MANAGEMENT