



**DETAILED DESCRIPTION OF THE (EOI) FOR FEASIBILITY STUDY FOR ESTABLISHMENT OF A GEOTHERMAL HEATED SWIMMING POOL AND SPA COMPLEX PLUS OTHER ASSOCIATED FACILITIES AT THE MENENGAI GEOTHERMAL FIELD, NAKURU-KENYA.
REFERENCE NUMBER : GDC/DU/EOI/001/2022-2023**

1. BACKGROUND

Geothermal Development Company (GDC) is a fully government-owned organization in Kenya's Ministry of Energy. GDC was formed in 2008 as a Special Purpose Vehicle (SPV) to accelerate the development of geothermal resources in Kenya through exploration, drilling, geothermal resource management and utilization. Currently, GDC has operations in Menengai and Baringo-Silali geothermal fields.

One of GDC's mandates is to promote and market alternative uses of geothermal energy, commonly referred to as Direct-Uses. One of the oldest and most popular Direct-Use application is the use of naturally existing geothermal heated hot springs and hot pools for bathing, wellness and therapeutic activities. GDC intends to set up a geothermal heated Spa-Complex in Menengai geothermal field consisting of cold swimming pool, geothermally heated swimming pool with public hot pools, satellite private hot pools, steam heated sauna and baths, therapeutic facility and geothermally heated and cooled cottages within the vicinity of the Spa complex.

To commence this goal, a detailed feasibility study on "*Establishment of a geothermal heated swimming pool and Spa Complex plus associated facilities in Menengai geothermal field, Nakuru*" need to be done immediately. The study is aimed at gathering relevant information related to the viability of the project, market, cost, financial returns and other technical, social, environmental and regulatory requirements of such a project, prior to project design and implementation. Firms/consortium are therefore invited to express interest undertaking the detailed feasibility study.

2. OVERVIEW OF DIRECT-USE APPLICATIONS

Direct-Uses of geothermal energy refer to alternative applications of geothermal energy other than generation of electricity. There exist many such applications in industries, agriculture, domestic,

EOI to carry out detailed feasibility study for establishment of a geothermal heated Spa Complex and associated infrastructure in Menengai, Nakuru -Kenya

recreation and in leisure activities. While selecting the type of geothermal application to implement, Lindal diagram (Figure 1) is used as a guide as to the temperature of the geothermal fluids, for electricity generation and Direct-Uses.

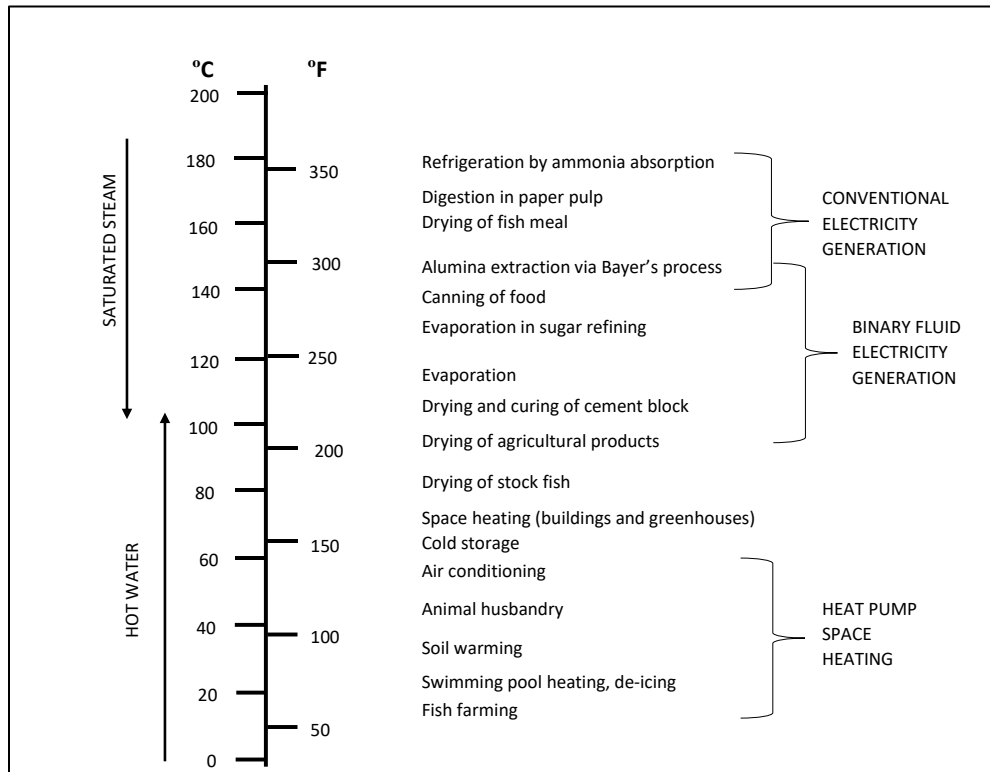


Figure 1: Modified Lindal Diagram (1973),

From the Lindal diagram, Spas and swimming pools heating utilize medium to low temperature geothermal fluids.

3. GENERAL INFORMATION OF MENENGAI GEOTHERMAL FIELD

3.1 Geothermal Energy Development

Menengai geothermal field is at advanced stage of development where steam for electricity generation has been developed and power plant construction is ongoing. Alongside this, GDC has proven substantial thermal energy for Direct-Uses from separated brine and fluids from low to medium temperature wells.

3.2 Location and Access

Menengai geothermal field is located in Nakuru county, 20km from Nakuru city centre and about 180km from Nairobi. The Nairobi-Nakuru-Eldoret highway, which is part of the northern transport corridor passes through Nakuru town and is a major transport route for industrial goods (Figure 2). Menengai is accessible by road through Nakuru-Kabarak road to the south and Nakuru-Nyahururu road to the East; both of which are paved roads. The caldera is accessible through all-

EOI to carry out detailed feasibility study for establishment of a geothermal heated Spa Complex and associated infrastructure in Menengai, Nakuru -Kenya

weather dirt roads which are maintained by GDC (Figure 3). A railway line offering freight services passes through Nakuru town and can be used to transport bulky industrial goods as well as raw materials. In addition, a standard gauge railway is exist, from Nairobi to Naivasha, within Nakuru county. Plans are at an advanced stage to upgrade the Lanet Airstrip into a commercial international airport.

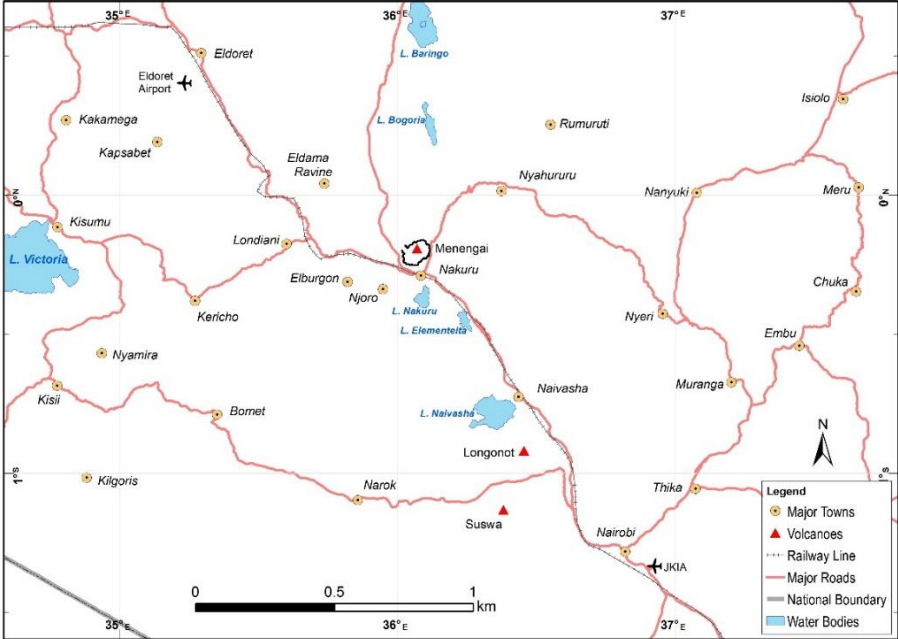


Figure 2: Major Roads Serving Nakuru County

EOI to carry out detailed feasibility study for establishment of a geothermal heated Spa Complex and associated infrastructure in Menengai, Nakuru -Kenya

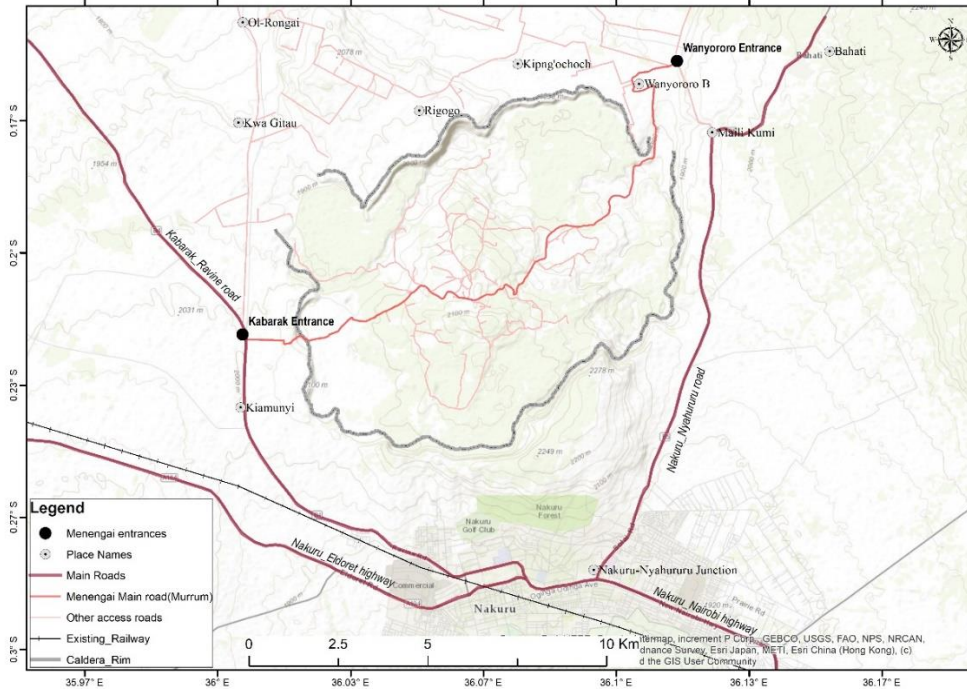


Figure 3: Roads Serving Menengai Geothermal Field

GDC has identified several Resource Parks where various investments will be located. One such resource park is for establishment of a geothermal powered Spa-Complex. The detailed feasibility study is expected to establish all the necessary factors that need to be considered before such an establishment set up.

4. OBJECTIVES OF THE FEASIBILITY STUDY

The objectives of the study are:

- i. To assess the viability of establishment of geothermal heated swimming pools and Spa Complex at Menengai geothermal field, Nakuru, Kenya.
- ii. To conduct market survey for the proposed Spa Complex project
- iii. Develop a detailed financial model of the proposed Spa Complex project
- iv. Undertake economic evaluation of the proposed Spa Complex project,
- v. Carry out social and environmental impacts scoping of the project.
- vi. Develop a preliminary design of the Spa complex that brings out the maximum returns
- vii. Map out the key stakeholders and how they interrelate for the success of the project management
- viii. Undertake SWOT and PESTEL analysis of proposed project
- ix. Assess the various options of the implementation and operation of the Spa-Complex project and advise GDC on the best option to adopt

EOI to carry out detailed feasibility study for establishment of a geothermal heated Spa Complex and associated infrastructure in Menengai, Nakuru -Kenya

- x. Undertake any other analysis that will help GDC in decision making

5. SCOPE OF WORK

The Expression of Interest (EOI) referred to herein is “*Expression of Interest to carry out a Detailed Feasibility study for the establishment of a geothermal heated swimming pool and Spa Complex and associated facilities in Menengai geothermal field, Nakuru-Kenya*”.

The scope of the feasibility study is comprised of but not limited to the following:

a) Technical assessment of the establishment of Spa Complex project

The consultant should assess the viability of the Spa Complex with regards to the geothermal fluids to be used for the project. Various technologies that are available for maximum financial returns.

b) Site selection and site investigation

It is expected that the consultant will advise on the best site to establish the Spa Complex and other accessories based on the options provided for by GDC and develop a schematic layout. The reasons for the proposed site section should be elaborated in the feasibility study report.

c) Size of the Spa complex facilities

An overview of the proposed sizes of all the Spa-Complex components and accessories that best suits the proposed project. This should be clearly articulated in the final report.

d) Market study

The consultant should carry out market survey and opportunities to assess the profitability of the proposed project. A comparison of similar existing facilities locally and internationally should be done so as to come up with reasonable charges for the Spa Complex facilities for maximum returns

e) Financial and economic evaluation

Undertake the detailed financial evaluations of the project in terms of investment, operational and maintenance costs, annual revenues, project life and pay-back period of the proposed project

f) Social and Environmental impact scoping and benefits analysis

Evaluate the impact of the proposed project to GDC, local community, county and national government and other stakeholders. Social and environmental impact scoping also need to be undertaken.

g) Legal framework

Establish legal and regulatory aspects that need to be complied with before implementation of the proposed project and during implementation, commissioning, operations and de-commissioning

h) Risk assessment of the project

EOI to carry out detailed feasibility study for establishment of a geothermal heated Spa Complex and associated infrastructure in Menengai, Nakuru -Kenya

Undertake SWOT and PESTEL analysis of the proposed project.

6. EVALUATION CRITERIA/REQUIREMENTS

Shortlisting of firms will be based on the following criteria.

- i. Certificate of Incorporation/ Registration in Kenya or domicile country certified by an advocate or equivalent for foreign firms Notarized by a Notary Public for foreign firms.
- ii. Tax compliance or equivalent for foreign countries valid at the time of opening. The validity of the Tax certificate shall be confirmed from KRA Tax Checker or equivalent for foreign firms Notarized by a Notary Public for foreign firms
- iii. Certificate of Confirmation of Directors and Shareholding (CR12) or equivalent for foreign countries Notarized by a Notary Public for foreign firms.
- iv. Evidence that the firm/consortium satisfy all relevant licensing and/or registration bodies in their domicile countries
- v. Audited financial statements for the last 5 years (2021, 2020, 2019, 2018 and 2017)
- vi. Company profile
- vii. Where the applicant is a consortium, the following should be provided:
 - A list of the proposed members of the consortium and the proposed leader of the consortium and the roles of each consortium member.
 - A duly notarized Consortium Agreement
 - Power of Attorney nominating the Team Lead of the consortium.
- viii. Must have conducted at least three (3) detailed feasibility studies for projects worth not less than USD 500,000 in the last 5 years.
 - A brief description of the feasibility studies done (scope and scale) must be attached. At least three (3) references MUST be provided.
- ix. Must demonstrate availability of professional staff in key positions with relevant experience of NOT LESS THAN 5 years in undertaking such a study. The following staff are mandatory.
 - Mechanical Engineer/ Energy engineer
 - Civil/Structural Engineer
 - Social Scientist
 - Financial analyst
 - Environmental expert
 - Legal expert
 - Architect/Physical planner
 - Geothermal expert (geologist/geochemist)

EOI to carry out detailed feasibility study for establishment of a geothermal heated Spa Complex and associated infrastructure in Menengai, Nakuru -Kenya

- a) Must attach curriculum vitae for the professional staff
- b) The lead expert MUST have experience of more than 10 years in any of the fields mentioned above.
- x. International firm/consortium, MUST provide evidence of 40% local content in key positions.
- xi. List of feasibility studies carried out in the last 5 years. The list should be accompanied by copies of reference letters from clients for the assignment undertaken. Also a brief description of the feasibility study (scope and scale) and the status of the projects.
- xii. Work plan schedule including proposed timelines.
- xiii. Demonstrated expertise in undertaking feasibility studies for establishment of a geothermal heated Spa will be an added advantage

7. CLARIFICATIONS

Any form of clarifications can be sent to GDC at least seven (7) days before the closing date of the expression of interest and must be sent in writing by paper mail, facsimile, or electronic mail to:

The Manager, Supply Chain

Geothermal Development Company,

Head office: Kawi House, South C Bellevue- off Mombasa Road

P.O Box, 100746-00100,

Nairobi, Kenya.

Pilot line: +254 719 037000; 020 2427516

Email address: dkyaka@gdc.co.ke; pkapto@gdc.co.ke; procurement@gdc.co.ke and copied to: mmburu@gdc.co.ke and cofwona@gdc.co.ke

Any updates on this EoI will be posted on GDC website, www.gdc.co.ke or <http://tenders.go.ke> free of charge.

8. EOI SUBMISSION

Submission of the expression of interest made in English must be received in a plain sealed envelope and delivered or registered to:

**Managing Director & CEO,
Geothermal Development Company Ltd (GDC)
GDC Kawi House, South C
P.O Box 100746 – 00101,
Nairobi-Kenya,**

EoI to carry out detailed feasibility study for establishment of a geothermal heated Spa Complex and associated infrastructure in Menengai, Nakuru -Kenya

Information on the outer envelope shall be clearly marked “**GDC/DU/EOI/001/2022-2023**”-
“**EXPRESSION OF INTEREST (EOI) TO CARRY OUT A DETAILED FEASIBILITY STUDY FOR THE ESTABLISHMENT OF A GEOTHERMAL HEATED SWIMMING POOL AND SPA-COMPLEX IN MENENGAI GEOTHERMAL FIELD, NAKURU-KENYA.**” To submit one (1) original and one (1) copy of the EOI and **deposited in the tender box situated at GDC Kawi House Ground Floor on or before Thursday 18th August 2022 at 14.00 Hours East Africa Time.**

The EOI will be opened on the same day in public at: GDC Kawi House, South C Bellevue, Off Mombasa Road, Red Cross Road,

Floor/Room number: **GDC Kawi House Ground Floor**

City: **Nairobi**

Country: **Kenya**

Date: **Thursday 18th August 2022**

Time: **14.00 Hours East Africa Time**

Bidders are advised to be checking the websites from time to time before submission date for any uploaded information through clarification/addendum. Only individuals shortlisted under this procedure shall be invited to submit their Technical and Financial proposals under the Request for Proposals (RFP). GDC adheres to high standards of integrity in its business operations and does not entertain any unethical or corrupt practices.

Late applications will not be accepted.

MANAGER, SUPPLY CHAIN