REQUEST FOR PROPOSALS

TECHNICAL ASSISTANCE FOR THE

GEOTHERMAL DEVELOPMENT COMPANY CAPACITY BUILDING PROJECT

Submission Deadline: **4:00 PM**

LOCAL (NAIROBI) TIME

NOVEMBER 22, 2010

Submission Place: **GEOTHERMAL DEVELOPMENT COMPANY LIMITED**
9th FLOOR, TAJ TOWERS, UPPER HILL
P.O. BOX 100746-00101
NAIROBI, KENYA

PHONE: +254 719 715 778, +254 719 715 777
E-MAIL: INFO@GDC.GO.KE

SEALED PROPOSALS SHALL BE CLEARLY MARKED AND RECEIVED PRIOR TO THE TIME AND DATE SPECIFIED ABOVE. PROPOSALS RECEIVED AFTER SAID TIME AND DATE WILL NOT BE ACCEPTED OR CONSIDERED.

REQUEST FOR PROPOSALS

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ANNEX 2	BACKGROUND DEFINITIONAL MISSION REPORT
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Section 1: INTRODUCTION

The U.S. Trade and Development Agency ("USTDA") has provided a grant in the amount of US$641,000 to the Geothermal Development Company Limited (the "Grantee") in accordance with a grant agreement dated August 2, 2010 (the "Grant Agreement") to fund the cost of goods and services required for technical assistance ("Technical Assistance") on the proposed Geothermal Development Company Capacity Building Project ("Project") in Kenya ("Host Country").

The Grant Agreement is attached at Annex 4 for reference. The Grantee is soliciting technical proposals from qualified U.S. firms to provide expert consulting services to perform the Technical Assistance.

1.1 BACKGROUND SUMMARY

Kenya is heavily dependent on hydropower, which currently represents 72% of the country's installed electricity generation capacity. Recent droughts have left the country vulnerable to power shortages, and the high price of diesel fuel along with environmental concerns have the Government of Kenya ("GOK") turning to other forms of renewable energy to fill the country's power gap. Kenya is situated in Africa's Rift Valley, a geothermal "hot spot," and has had installed geothermal capacity since 1981 when the Olkaria I plant came on-line. Experts estimate that Kenya has a potential of generating 7,000 megawatts ("MW") from geothermal power if its resources are fully exploited, compared to the current installed capacity of 202 MW. The GOK recognizes the key role of private investment in the power sector, and 20% of the country's installed capacity is currently provided by privately held sources including a geothermal power plant at Olkaria III.

One of the key constraints encountered by countries wishing to exploit geothermal power is the gap between surface assessment of geothermal resources and installation of power generation facilities. Exploration, appraisal, and production drilling are very costly (drilling a single well can cost in excess of $2 million), and private sector companies are often reluctant to take on multi-million dollar risks on an unproven resource. To fill this gap, in 2008 the GOK established the Grantee, a 100% GOK owned corporation, to develop Kenya's geothermal resources up to the point of production and development of steam supply. The Grantee conducts surface exploration, exploration and appraisal drilling, feasibility studies, and production drilling. Once the steam resource is developed, the Grantee sells it to power plant developers for use in power production. The Grantee's goal is to facilitate the realization of an additional 2,000 MW of power in the next ten years and 4,000 MW by 2030.

A background Definitional Mission is provided for reference in Annex 2.

1.2 OBJECTIVES

The primary objectives of this Technical Assistance are to provide the Grantee with the following:

- An investment model for meeting the Grantee's goal of 4,000 MW of new geothermal power production in the next twenty years;
- Guidance on selecting strategic and financial private investors interested in the sector, including a sample RFP and evaluation criteria for future concessions;
- A financial and economic model including a feed-in tariff analysis;
- A risk management plan; and
- Training workshops to enhance the Grantee's skills and knowledge in the areas covered by the Terms of Reference ("TOR") for this Technical Assistance.

The TOR for this Technical Assistance are attached as Annex 5.

1.3 PROPOSALS TO BE SUBMITTED

Technical proposals are solicited from interested and qualified U.S. firms. The administrative and technical requirements as detailed throughout the Request for Proposals ("RFP") will apply. Specific proposal format and content requirements are detailed in Section 3.

The amount for the contract has been established by a USTDA grant of US$641,000. **The USTDA grant of US$641,000 is a fixed amount. Accordingly, <u>COST will not be a factor in the evaluation and therefore, cost proposals should not be submitted</u>**. Upon detailed evaluation of technical proposals, the Grantee shall select one firm for contract negotiations.

1.4 CONTRACT FUNDED BY USTDA

In accordance with the terms and conditions of the Grant Agreement, USTDA has provided a grant in the amount of US$641,000 to the Grantee. The funding provided under the Grant Agreement shall be used to fund the costs of the contract between the Grantee and the U.S. firm selected by the Grantee to perform the TOR. The contract must include certain USTDA Mandatory Contract Clauses relating to nationality, taxes, payment, reporting, and other matters. The USTDA nationality requirements and the USTDA Mandatory Contract Clauses are attached at Annexes 3 and 4, respectively, for reference.

Section 2: INSTRUCTIONS TO OFFERORS

2.1 PROJECT TITLE

The project is called the Geothermal Development Company Capacity Building Project.

2.2 DEFINITIONS

Please note the following definitions of terms as used in this RFP.

The term "Request for Proposals" means this solicitation of a formal technical proposal, including qualifications statement.
The term "Offeror" means the U.S. firm, including any and all subcontractors, which responds to the RFP and submits a formal proposal and which may or may not be successful in being awarded this procurement.

2.3 DEFINITIONAL MISSION REPORT

USTDA sponsored a Definitional Mission to address technical, financial, sociopolitical, environmental and other aspects of the proposed project. A copy of the report is attached at Annex 2 for background information only. Please note that the TOR referenced in the report are included in this RFP as Annex 5.

2.4 EXAMINATION OF DOCUMENTS

Offerors should carefully examine this RFP. It will be assumed that Offerors have done such inspection and that through examinations, inquiries and investigation they have become familiarized with local conditions and the nature of problems to be solved during the execution of the Technical Assistance.

Offerors shall address all items as specified in this RFP. Failure to adhere to this format may disqualify an Offeror from further consideration.

Submission of a proposal shall constitute evidence that the Offeror has made all the above mentioned examinations and investigations, and is free of any uncertainty with respect to conditions which would affect the execution and completion of the Technical Assistance.

2.5 PROJECT FUNDING SOURCE

The Technical Assistance will be funded under a grant from USTDA. The total amount of the grant is not to exceed US$641,000.

2.6 RESPONSIBILITY FOR COSTS

Offeror shall be fully responsible for all costs incurred in the development and submission of the proposal. Neither USTDA nor the Grantee assumes any obligation as a result of the issuance of this RFP, the preparation or submission of a proposal by an Offeror, the evaluation of proposals, final selection or negotiation of a contract. It is anticipated that contract negotiations will take place in Nairobi.

2.7 TAXES

Offerors should submit proposals that note that in accordance with the USTDA Mandatory Contract Clauses, USTDA grant funds shall not be used to pay any taxes, tariffs, duties, fees or other levies imposed under laws in effect in the Host Country.

2.8 CONFIDENTIALITY

The Grantee will preserve the confidentiality of any business proprietary or confidential information submitted by the Offeror, which is clearly designated as such by the Offeror, to the extent permitted by the laws of the Host Country.

2.9 ECONOMY OF PROPOSALS

Proposal documents should be prepared simply and economically, providing a comprehensive yet concise description of the Offeror's capabilities to satisfy the requirements of the RFP. Emphasis should be placed on completeness and clarity of content.

2.10 OFFEROR CERTIFICATIONS

The Offeror shall certify (a) that its proposal is genuine and is not made in the interest of, or on behalf of, any undisclosed person, firm, or corporation, and is not submitted in conformity with, and agreement of, any undisclosed group, association, organization, or corporation; (b) that it has not directly or indirectly induced or solicited any other Offeror to put in a false proposal; (c) that it has not solicited or induced any other person, firm, or corporation to refrain from submitting a proposal; and (d) that it has not sought by collusion to obtain for itself any advantage over any other Offeror or over the Grantee or USTDA or any employee thereof.

2.11 CONDITIONS REQUIRED FOR PARTICIPATION

Only U.S. firms are eligible to participate in this tender. However, U.S. firms may utilize subcontractors from the Host Country for up to 20 percent of the amount of the USTDA grant for specific services from the TOR identified in the subcontract. USTDA's nationality requirements, including definitions, are detailed in Annex 3.

2.12 LANGUAGE OF PROPOSAL

All proposal documents shall be prepared and submitted in English, and only English.

2.13 PROPOSAL SUBMISSION REQUIREMENTS

The **Cover Letter** in the proposal must be addressed to:

Geothermal Development Company Limited
9th floor, Taj Towers, Upper Hill
PO Box 100746-00101
NAIROBI, KENYA

Phone: +254 719 715 778, +254 719 715 777
E-mail: info@gdc.go.ke

An Original and eight (8) copies of your proposal must be received at the above address no later than 4:00pm, Local (Nairobi) Time, on November 22, 2010.

Proposals may be either sent by mail, overnight courier, or hand-delivered. Whether the proposal is sent by mail, courier or hand-delivered, the Offeror shall be responsible for actual delivery of the proposal to the above address before the deadline. Any proposal received after the deadline will be returned unopened. The Grantee will promptly notify any Offeror if its proposal was received late.

Upon timely receipt, all proposals become the property of the Grantee.

2.14 PACKAGING

The original and each copy of the proposal must be sealed to ensure confidentiality of the information. The proposals should be individually wrapped and sealed, and labeled for content including "original" or "copy number x." The original and eight (8) copies should be collectively wrapped and sealed in an inner envelope addressed to the Offeror. This is in case the proposals need to be returned unopened. The inner envelope shall be wrapped and sealed in an outer envelope. The outer envelope shall be plain and shall bear no Offeror names. The outer envelope shall be clearly labeled, properly addressed (see Section 2.13 above), and shall include the following statement: **"USTDA Grant Proposal for Consultancy. Not to be opened before November 22, 2010, at 4:15 PM local (Nairobi) time."**

Neither USTDA nor the Grantee will be responsible for premature opening of proposals not properly wrapped, sealed and labeled.

2.15 AUTHORIZED SIGNATURE

The proposal must contain the signature of a duly authorized officer or agent of the Offeror empowered with the right to bind the Offeror.

2.16 EFFECTIVE PERIOD OF PROPOSAL

The proposal shall be binding upon the Offeror for ninety (90) days after the proposal due date and the Offeror may withdraw or modify this proposal at any time prior to the due date upon written request, signed in the same manner and by the same person who signed the original proposal.

2.17 EXCEPTIONS

All Offerors agree by their response to this RFP announcement to abide by the procedures set forth herein. No exceptions shall be permitted.

2.18 OFFEROR QUALIFICATIONS

As provided in Section 3, Offerors shall submit evidence that they have relevant past experience and have previously delivered advisory, technical assistance and/or other services similar to those required in the TOR, as applicable.

2.19 RIGHT TO REJECT PROPOSALS

The Grantee reserves the right to reject any and all proposals.

2.20 PRIME CONTRACTOR RESPONSIBILITY

Offerors have the option of subcontracting parts of the services they propose. The Offeror's proposal must include a description of any anticipated subcontracting arrangements, including the name, address, and qualifications of any subcontractors. USTDA nationality provisions apply to the use of subcontractors and are set forth in detail in Annex 3. The successful Offeror shall cause appropriate provisions of its contract, including all of the applicable USTDA Mandatory Contract Clauses, to be inserted in any subcontract funded or partially funded by USTDA grant funds.

2.21 AWARD

The Grantee shall make an award resulting from this RFP to the best qualified Offeror, on the basis of the evaluation factors set forth herein. The Grantee reserves the right to reject any and all proposals received and, in all cases, the Grantee will be the judge as to whether a proposal has or has not satisfactorily met the requirements of this RFP.

2.22 COMPLETE SERVICES

The successful Offeror shall be required to (a) provide local transportation, office space and secretarial support required to perform the TOR if such support is not provided by the Grantee; (b) provide and perform all necessary labor, supervision and services; and (c) in accordance with best technical and business practice, and in accordance with the requirements, stipulations, provisions and conditions of this RFP and the resultant contract, execute and complete the TOR to the satisfaction of the Grantee and USTDA.

2.23 INVOICING AND PAYMENT

Deliverables under the contract shall be delivered on a schedule to be agreed upon in a contract with the Grantee. The Contractor may submit invoices to the designated Grantee Project Director in accordance with a schedule to be negotiated and included in the contract. After the Grantee's approval of each invoice, the Grantee will forward the invoice to USTDA. If all of the requirements of USTDA's Mandatory Contract Clauses are met, USTDA shall make its respective disbursement of the grant funds directly to the U.S. firm in the United States. All payments by USTDA under the Grant Agreement will be made in U.S. currency. Detailed provisions with respect to invoicing and disbursement of grant funds are set forth in the USTDA Mandatory Contract Clauses attached in Annex 4.

Section 3: PROPOSAL FORMAT AND CONTENT

To expedite proposal review and evaluation, and to assure that each proposal receives the same orderly review, all proposals must follow the format described in this section.

Proposal sections and pages shall be appropriately numbered and the proposal shall include a Table of Contents. Offerors are encouraged to submit concise and clear responses to the RFP. Proposals shall contain all elements of information requested without exception. Instructions regarding the required scope and content are given in this section. The Grantee reserves the right to include any part of the selected proposal in the final contract.

The proposal shall consist of a technical proposal only. A cost proposal is NOT required because the amount for the contract has been established by a USTDA grant of US$641,000, which is a fixed amount.

Offerors shall submit one (1) original and eight (8) copies of the proposal. Proposals received by fax or e-mail cannot be accepted.

Each proposal must include the following:

Transmittal Letter,
Cover/Title Page,
Table of Contents,
Executive Summary,
Company Information,
Organizational Structure, Management Plan, and Key Personnel,
Technical Approach and Work Plan, and
Experience and Qualifications.

Detailed requirements and directions for the preparation of the proposal are presented below.

3.1 EXECUTIVE SUMMARY

An Executive Summary should be prepared describing the major elements of the proposal, including any conclusions, assumptions, and general recommendations the Offeror desires to make. Offerors are requested to make every effort to limit the length of the Executive Summary to no more than five (5) pages.

3.2 COMPANY INFORMATION

For convenience, the information required in this Section 3.2 may be submitted in the form attached in Annex 6 hereto.

3.2.1 Company Profile

Provide the information listed below relative to the Offeror's firm. If the Offeror is proposing to subcontract some of the proposed work to another firm(s), the information requested in sections 3.2.5 and 3.2.6 below must be provided for each subcontractor.

1. Name of firm and business address (street address only), including telephone and fax numbers.

2. Year established (include predecessor companies and year(s) established, if appropriate).

3. Type of ownership (e.g. public, private or closely held).

4. If private or closely held company, provide list of shareholders and the percentage of their ownership.

5. A complete set of audited financial statements for the last three years.

6. List of directors and principal officers (President, Chief Executive Officer, Vice-President(s), Secretary and Treasurer; provide full names including first, middle and last). Please place an asterisk (*) next to the names of those principal officers who will be involved in the Technical Assistance.

7. If Offeror is a subsidiary, indicate if Offeror is a wholly-owned or partially-owned subsidiary. Provide the information requested in items 1 through 5 above for the Offeror's parent(s).

8. Project Manager's name, address, telephone number, e-mail address and fax number.

3.2.2 Offeror's Authorized Negotiator

Provide name, title, address, telephone number, e-mail address and fax number of the Offeror's authorized negotiator. The person cited shall be empowered to make binding commitments for the Offeror and its subcontractors, if any.

3.2.3 Negotiation Prerequisites

1. Discuss any current or anticipated commitments which may impact the ability of the Offeror or its subcontractors to complete the Technical Assistance as proposed and reflect such impact within the project schedule.

2. Identify any specific information which is needed from the Grantee before commencing contract negotiations.

3.2.4 Offeror's Representations

If any of the following representations cannot be made, or if there are exceptions, the Offeror must provide an explanation.

1. Offeror is a corporation *[insert applicable type of entity if not a corporation]* duly organized, validly existing and in good standing under the laws of the State of ______________. The Offeror has all the requisite corporate power and authority to conduct its business as presently conducted, to submit this proposal, and if selected, to execute and deliver a contract to the Grantee for the performance of the Technical Assistance. The Offeror is not debarred, suspended, or to the best of its knowledge or belief, proposed for debarment, or ineligible for the award of contracts by any federal or state governmental agency or authority.

2. The Offeror has included, with this proposal, a certified copy of its Articles of Incorporation, and a certificate of good standing issued within one month of the date of its proposal by the State of ____________. The Offeror commits to notify USTDA and the Grantee if they become aware of any change in their status in the state in which they are incorporated. USTDA retains the right to request an updated certificate of good standing.

3. Neither the Offeror nor any of its principal officers have, within the three-year period preceding this RFP, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a federal, state or local government contract or subcontract; violation of federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, violating federal or state criminal tax laws, or receiving stolen property.

4. Neither the Offeror, nor any of its principal officers, is presently indicted for, or otherwise criminally or civilly charged with, commission of any of the offenses enumerated in paragraph 3 above.

5. There are no federal or state tax liens pending against the assets, property or business of the Offeror. The Offeror, has not, within the three-year period preceding this RFP, been notified of any delinquent federal or state taxes in an amount that exceeds $3,000 for which the liability remains unsatisfied. Taxes are considered delinquent if (a) the tax liability has been fully determined, with no pending administrative or judicial appeals; and (b) a taxpayer has failed to pay the tax liability when full payment is due and required.

6. The Offeror has not commenced a voluntary case or other proceeding seeking liquidation, reorganization or other relief with respect to itself or its debts under any bankruptcy, insolvency or other similar law. The Offeror has not had filed against it an involuntary petition under any bankruptcy, insolvency or similar law.

The selected Offeror shall notify the Grantee and USTDA if any of the representations included in its proposal are no longer true and correct at the time of its entry into a contract with the Grantee.

3.2.5 Subcontractor Profile

1. Name of firm and business address (street address only), including telephone and fax numbers.

2. Year established (include predecessor companies and year(s) established, if appropriate).

3.2.6 Subcontractor's Representations

If any of the following representations cannot be made, or if there are exceptions, the Subcontractor must provide an explanation.

1. Subcontractor is a corporation *[insert applicable type of entity if not a corporation]* duly organized, validly existing and in good standing under the laws of the State of _______________. The subcontractor has all the requisite corporate power and authority to conduct its business as presently conducted, to participate in this proposal, and if the Offeror is selected, to execute and deliver a subcontract to the Offeror for the performance of the Technical Assistance and to perform the Technical Assistance. The subcontractor is not debarred, suspended, or to the best of its knowledge or belief, proposed for debarment or ineligible for the award of contracts by any federal or state governmental agency or authority.

2. Neither the subcontractor nor any of its principal officers have, within the three-year period preceding this RFP, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a federal, state or local government contract or subcontract; violation of federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, violating federal or state criminal tax laws, or receiving stolen property.

3. Neither the subcontractor, nor any of its principal officers, is presently indicted for, or otherwise criminally or civilly charged with, commission of any of the offenses enumerated in paragraph 2 above.

4. There are no federal or state tax liens pending against the assets, property or business of the subcontractor. The subcontractor, has not, within the three-year period preceding this RFP, been notified of any delinquent federal or state taxes in an amount that exceeds $3,000 for which the liability remains unsatisfied. Taxes are considered delinquent if (a) the tax liability has been fully determined, with no pending administrative or judicial appeals; and (b) a taxpayer has failed to pay the tax liability when full payment is due and required.

5. The subcontractor has not commenced a voluntary case or other proceeding seeking liquidation, reorganization or other relief with respect to itself or its debts under any bankruptcy, insolvency or other similar law. The subcontractor has not had filed against it an involuntary petition under any bankruptcy, insolvency or similar law.

The selected subcontractor shall notify the Offeror, Grantee and USTDA if any of the representations included in this proposal are no longer true and correct at the time of the Offeror's entry into a contract with the Grantee.

3.3 ORGANIZATIONAL STRUCTURE, MANAGEMENT, AND KEY PERSONNEL

Describe the Offeror's proposed project organizational structure. Discuss how the project will be managed including the principal and key staff assignments for this Technical Assistance. Identify the Project Manager who will be the individual responsible for this project. The Project Manager shall have the responsibility and authority to act on behalf of the Offeror in all matters related to the Technical Assistance.

Provide a listing of personnel (including subcontractors) to be engaged in the project, including both U.S. and local subcontractors, with the following information for key staff: position in the project; pertinent experience, curriculum vitae; other relevant information. If subcontractors are to be used, the Offeror shall describe the organizational relationship, if any, between the Offeror and the subcontractor.

A manpower schedule and the level of effort for the project period, by activities and tasks, as detailed under the Technical Approach and Work Plan shall be submitted. A statement confirming the availability of the proposed project manager and key staff over the duration of the project must be included in the proposal.

3.4 TECHNICAL APPROACH AND WORK PLAN

Describe in detail the proposed Technical Approach and Work Plan (the "Work Plan"). Discuss the Offeror's methodology for completing the project requirements. Include a brief narrative of the Offeror's methodology for completing the tasks within each activity series. Begin with the information gathering phase and continue through delivery and approval of all required reports.

Prepare a detailed schedule of performance that describes all activities and tasks within the Work Plan, including periodic reporting or review points, incremental delivery dates, and other project milestones.

Based on the Work Plan, and previous project experience, describe any support that the Offeror will require from the Grantee. Detail the amount of staff time required by the Grantee or other participating agencies and any work space or facilities needed to complete the Technical Assistance.

3.5 EXPERIENCE AND QUALIFICATIONS

Provide a discussion of the Offeror's experience and qualifications that are relevant to the objectives and TOR for the Technical Assistance. If a subcontractor(s) is being used, similar information must be provided for the prime and each subcontractor firm proposed for the project. The Offeror shall provide information with respect to relevant experience and qualifications of key staff proposed. The Offeror shall include letters of commitment from the individuals proposed confirming their availability for contract performance.

Not less than three (3) and not more than six (6) relevant and verifiable project references undertaken in the last ten years must be provided for each of the Offeror and any subcontractor, including the following information:

Project name,
Name and address of client (indicate if joint venture),
Client contact person (name/ position/ current phone and fax numbers),
Period of Contract,
Description of services provided,
Dollar amount of Contract, and
Status and comments.

Offerors are strongly encouraged to include in their experience summary primarily those projects that are similar to or larger in scope than the Technical Assistance as described in this RFP.

Section 4: AWARD CRITERIA

Individual proposals will be initially evaluated by a Procurement Selection Committee of representatives from the Grantee. The Committee will then conduct a final evaluation and completion of ranking of qualified Offerors. The Grantee will notify USTDA of the best qualified Offeror, and upon receipt of USTDA's no-objection letter, the Grantee shall promptly notify all Offerors of the award and negotiate a contract with the best qualified Offeror. If a satisfactory contract cannot be negotiated with the best qualified Offeror, negotiations will be formally terminated. Negotiations may then be undertaken with the second most qualified Offeror and so forth.

The selection of the Contractor will be based on the following criteria:

		Max. Points
1	**ORGANIZATION STRUCTURE, MANAGEMENT, AND KEY PERSONNEL**	35
1.1	**Quality of the Offeror's Proposed Organizational Structure and Management Plan for the Technical Assistance – 5 pts**	
	a) Completeness (including organizational structure, management plan, list of key personnel, curriculum vitae for key personnel, and identification of subcontractors/joint venture partners) – **2 pts** b) Description of key assignments and manpower schedule – **3pts**	
1.2	**Experience and Expertise of the Offeror's Proposed Project Manager for the Technical Assistance – 10 pts**	
	a) Experience managing similar assignments in energy and power sector – **2pts** b) Experience managing similar assignments in geothermal power sector – **2pts** c) Experience working in the geothermal power sector – **2pts** d) Experience working in Kenya, East Africa, and/or other developing countries – **1.5 pt** e) Experience implementing investment projects in Kenya, East Africa, and/or other developing countries – **1.5 pts** f) Academic qualifications – **1 pt**	
1.3	**Experience and Expertise of the Offeror's Other Key Personnel (Including Subcontractors) in Fulfilling the Various Functions Required for the Technical Assistance – 20 pts**	
	a) Power Engineering Consultant – **6 pts** • Experience preparing and evaluating business plans **(1 pt)** • Experience working on power generation investment and power tariff setting projects **(1.5 pts)** • Experience with international private investment, particularly in developing countries **(1.5 pts)** • Experience with investment risk profiling **(1 pt)** • Experience developing tender specification for power projects **(1 pt)**	

	b) Project Development and Financial Officer – **6 pts** • Experience planning power generation projects **(1.5 pts)** • Experience planning geothermal power projects **(1.5 pts)** • Experience working in the geothermal power sector **(1.5pts)** • Experience working in developing countries **(1.5 pts)** c) Financial Analyst – **4 pts** • Experience working with financial computer modeling of investments in power projects **(1.5 pts)** • Experience with preparation and evaluation of financial statements **(1.5 pts)** • Experience with international investment in developing countries **(1 pt)** d) Legal Counsel – **4 pts** • Experience evaluating investment legal frameworks **(1 pt)** • Experience preparing power generation contracts **(1 pt)** • Experience with power generation concessions **(2 pts)**	
2	**TECHNICAL APPROACH AND WORK PLAN**	**25**
2.1	**Quality of the Offeror's Proposed Technical Approach and Work Plan – 20 pts**	
	a) Clarity and conciseness of the Offeror's Proposed Technical Approach and Work Plan – **2.5 pts** b) Completeness of the Offeror's Proposed Technical Approach and Work Plan – **2.5 pts** c) Methodology used for the Offeror's Proposed Technical Approach and Work Plan – **15 pts**	
2.2	**Quality of the Offeror's Proposed Schedule for Carrying Out the Technical Assistance – 5 pts**	
	a) Completeness of schedule – **2.5 pts** b) Appropriateness of time allocation – **2.5 pts**	
3	**OFFEROR'S EXPERIENCE AND QUALIFICATIONS**	**20**
3.1	**Offeror's Experience and Qualifications in Performing Similar Assignments or Other Closely Related Work – 20 pts**	
	a) Offeror's experience in performing similar assignments in the geothermal power sector or other closely related work in last 10 years – **10pts** b) Offeror's qualifications in performing similar assignments in the geothermal power sector or other closely related work – **10 pts**	
4.	**TRAINING EXPERIENCE, QUALIFICATIONS AND PLAN**	**10**
4.1	**Offeror's Experience and Qualifications in Providing High Quality Training in the Topic Areas Stipulated in the TOR – 2 pts**	
	a) Evidence of at least 2 successful relevant training programs carried out in the last 10 years – **2pts**	
4.2	**Offeror's Plan for Meeting the Training Requirements in the TOR – 8 pts**	
	a) Time allocated for training – **2.5pts** b) Training scope outline – **2 pts** c) Training materials to be provided – **1 pt**	

	d) Proposed training methodology – **2.5 pts**	
5.	**COUNTRY/REGIONAL EXPERIENCE**	**10**
5.1	**Offeror's Experience Working in Kenya, East Africa, and/or Other Developing Countries, Preferably in the Geothermal Power Sector – 10 pts**	
	a) Offeror's experience working in Kenya, preferably in the geothermal power sector – **5 pts** b) Offeror's experience working in other East African countries, preferably in the geothermal power sector – **2 pts** c) Offeror's experience working in Philippines, Indonesia, or South America, preferably in the geothermal power sector – **2 pts** d) Offeror's experience working in other developing countries, preferably in the geothermal power sector – **1 pt**	
TOTAL POSSIBLE POINTS		**100**

Proposals that do not include all requested information may be considered non-responsive.

CHECKLIST FOR REQUESTED INFORMATION

BID SUBMISSION	Was the proposal delivered in time?
	Is the proposal written in English?
CORPORATE DETAILS	Is the name of the Offeror defined? Are the names of all subcontractors/joint venture partner(s) defined?
	If a joint venture, is the lead company stated?
	If a joint venture, does the proposal include a declaration of intent regarding cooperation provided?
	Are the names of authorized representatives stated?
PERSONNEL INFORMATION	Is management/organization /personnel structure provided?
	Is a list of key personnel and their curriculum vitae, including staff who will monitor and give back-up services from home office, provided?
FINANCIAL RESOURCES	Is a complete set of audited financial statements for the last three years provided?
REFERENCES	Are at least three (3) and not more than six (6) relevant and verifiable project references undertaken in the last ten years provided for each of the Offeror and any subcontractor?

Price will not be a factor in contractor selection.

ANNEX 1

Geothermal Development Company Limited, 9th floor, Taj Towers, Upper Hill, PO Box 100746-00101, NAIROBI, KENYA, Phone: +254 719 715 778, +254 719 715 777, E-mail: info@gdc.go.ke

B—Kenya: Technical Assistance for the Geothermal Development Company Capacity Building Project

POC: Nina Patel, USTDA, 1000 Wilson Boulevard, Suite 1600, Arlington, VA 22209-3901, Tel: (703) 875-4357, Fax: (703) 875-4009. Geothermal Development Company Capacity Building Project. The Grantee invites submission of qualifications and proposal data (collectively referred to as the "Proposal") from interested U.S. firms that are qualified on the basis of experience and capability to provide technical assistance that will assist the Grantee in improving its capabilities to succeed in the development of Kenya's geothermal energy potential.

The Grantee, a 100% Government of Kenya owned corporation, was established in 2008 to accelerate the development of Kenya's geothermal potential, estimated at 7,000 megawatts (MW). The Grantee has responsibility for undertaking exploration drilling and appraisal drilling at known geothermal fields and the production and development of steam supplies. The Grantee sells this steam to power producers, including the country's power company, KenGen, and private investors. As a fledgling organization, the Grantee seeks to develop its capacity to develop feed-in tariffs and evaluate potential partners for power purchase agreements.

The Grantee recognizes that as a newly formed organization there is a need to build their capacity as they progress in their mission. This technical assistance will provide the Grantee with the following:

- An investment model for meeting the Grantee's goal of 4,000 MW of new geothermal power production in the next twenty years;
- Guidance on selecting strategic and financial private investors interested in the sector, including a sample request for proposals (RFP) and evaluation criteria for future concessions;
- A financial and economic model including a feed-in tariff analysis;
- A risk management plan; and
- Training workshops to enhance the Grantee's skills and knowledge in the areas covered by the Terms of Reference (TOR) for this technical assistance.

The U.S. firm selected will be paid in U.S. dollars from a US$641,000 grant to the Grantee from the U.S. Trade and Development Agency (USTDA).

A detailed RFP for this technical assistance, which includes requirements for the Proposal, the TOR, and a background definitional mission report are available from USTDA, at 1000 Wilson Boulevard, Suite 1600, Arlington, VA 22209-3901. To request the RFP in PDF format, please go to: https://www.ustda.gov/businessopps/rfpform.asp. Requests for a mailed hardcopy version of the RFP may also be faxed to the IRC, USTDA at 703-875-4009. In the fax, please include your firm's name, contact person, address, and telephone number. Some firms have found that RFP materials sent by U.S. mail do not reach them in time for preparation of an adequate response. Firms that want USTDA to use an overnight delivery service should include the name of the delivery service and your firm's account number in the request for the RFP. Firms that want to send a courier to USTDA to retrieve the RFP should allow one hour after faxing the request to USTDA before scheduling a pick-up. Please note that no telephone requests for the RFP will be honored. Please check your internal fax verification receipt. Because of the large number of RFP requests, USTDA cannot respond to requests for fax verification. Requests for RFPs received before 4:00 PM will be mailed the same day. Requests received after 4:00 PM will be mailed the following day. Please check with your courier and/or mail room before calling USTDA.

Only U.S. firms and individuals may bid on this USTDA financed activity. Interested firms, their subcontractors and employees of all participants must qualify under USTDA's nationality requirements as of the due date for submission of qualifications and proposals and, if selected to carry out the USTDA-financed activity, must continue to meet such requirements throughout the duration of the USTDA-financed activity. All goods and services to be provided by the selected firm shall have their nationality, source and origin in the U.S. or host country. The U.S. firm may use subcontractors from the host country for up to 20 percent of the USTDA grant amount. Details of USTDA's nationality requirements and mandatory contract clauses are also included in the RFP.

Interested U.S. firms should submit their Proposal in English directly to the Grantee by 4:00 PM local (Nairobi) time, on November 22, 2010, at the above address. Evaluation criteria for the Proposal are included in the RFP. Price will not be a factor in contractor selection, and therefore, cost proposals should NOT be submitted. The Grantee reserves the right to reject any and/or all Proposals. The Grantee also reserves the right to contract with the selected firm for subsequent work related to the project. The Grantee is not bound to pay for any costs associated with the preparation and submission of Proposals.

ANNEX 2

Geothermal Development Company – Kenya

Technical Assistance

Country Background

Overall Description and Key Indicators

Kenya's state of economy has been highly publicized due to the 2008 post-election violence and recent drought. The violence resulted in setbacks in both socio-economic conditions as well as in public assets. Even considering these events, Kenya's economy has proven somewhat resilient, and is on track for a 3.5% growth rate in 2010 according to the World Bank. Recent Bank discussions note that both tourism and construction are expanding. The services sector grew 4.5 per cent in 2009, based largely on a tourism rebound offsetting the 36 per cent drop the previous year. The Consultant found that largely there is a positive outlook by Kenyans, however, with a continued skepticism toward the government and politics.

"Infrastructure bottlenecks and agricultural policy remain Kenya's main challenges," according to the World Bank in recent publications. The agricultural sector continues to be a challenge declining by 5 percent in 2008 and could contract an additional 2.4 percent in 2009, with drought a contributor. Policy issues are also partly blamed for higher corn prices. Services should have grown by about 4.5 percent and tourism could show a 30 percent increase in 2009 from its low of 36 percent decline in 2008. From a technology standpoint, internet and telephone connections increased by 30 percent in 2009.

Kenya has experienced severe droughts in the last five years, this greatly affecting the hydro-dominated electricity production. With heavy rains this past winter the reservoirs are full again, and the daily planned power outages have ceased. The drought situation has helped push Kenya and other regional countries to identify new sources of energy, re-evaluating shelved hydroelectric projects, develop energy conservation policies, and establish new agencies and divisions focused on renewable energy. The need for energy has also attracted new power developers looking to capitalize on higher power tariff opportunities thus making renewable energy projects highly rewarding to investors. KPLC, as the principal purchaser and distributor of power in the country, is being faced with arguments for power purchase agreements and tariff negotiations, spanning geothermal, wind, solar, and other projects. It is reasonable to say that the renewable energy sector in Kenya is already moving forward, yet with several opportunities ripe for development.

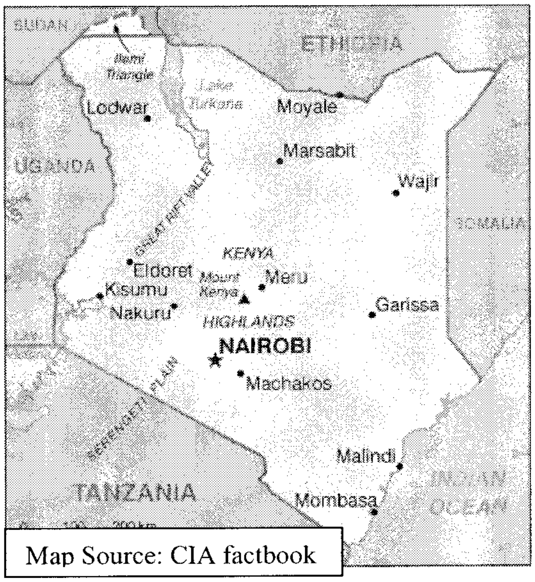
A summary of Kenya's vital statistics with emphasis on energy statistics is found below

Kenya Summary	
Capital	Nairobi
Land Area:	580,367 sq km
Terrain/Climate	Low plains rise to central highlands bisected by Great Rift Valley; fertile plateau in west. Climate varies from tropical along coast to arid in interior.
Exploited Natural Resources	Limestone, soda ash, salt, gemstones, fluorspar, zinc, diatomite, gypsum, wildlife, hydropower
Environmental Issues	water pollution from urban and industrial wastes; degradation of water quality from increased use of pesticides and fertilizers; water hyacinth infestation in Lake Victoria; deforestation; soil erosion; desertification; poaching
Population	39 million (July 2009 estimate)
Language	English (official), Kiswahili (official), numerous indigenous languages
Government and Legal	Republic
US Diplomatic Representation	Amb. Peter Rateng Oginga OGEGO 2249 R Street, NW Washington, DC 20008 202-387 6101
Economy	Kenya has been affected by high-level corruption and drought or near drought conditions for nearly a decade. After some early progress in rooting out corruption and encouraging donor support in the early 2000's, the KIBAKI government was affected by high-level graft scandals in 2005 and 2006. And, in 2006, the World Bank and IMF delayed loans pending action by the government on corruption. The international financial institutions and donors have since resumed lending, although many question the governments actual progress in addressing corruption. Post-election violence in early 2008, coupled with the effects of the global financial crisis on remittance and exports, reduced GDP growth to 2.2% in 2008, down from 7% the previous year. Kenya has rebounded since.
Economy Growth Rate (GDP)	1.7 % (2008 est.)
Exports ($/ type)	$5.04 billion (2008 est.) tea, horticultural products, coffee, petroleum products, fish, cement
Export Partners	UK 10%, Netherlands 9.2%, Uganda 9%, Tanzania 8.7%, US 6.3%, Pakistan 5.6% (2008)
Imports ($/type)	$10.69 billion (2008 est.)
Import Partners	India 14.1%, UAE 11.5%, China 10%, Saudi Arabia 8%, South Africa 5.7%, Japan 5.1% (2008)
Electricity/Power Statistics	
Electricity Production	5.223 billion kWh (2008 est.)
Electricity Consumption	4.863 billion kWh (2008 est.)
Electricity Imports	22.5 million kWh (2007 est.)
Electricity Exports	58.3 million kWh (2007 est.)

Source: CIA Factbook, USAID, World Bank

Trade and US Relations

The US and Kenya have a good trade relationship and have remained strong partners even through the domestic violence several years ago. More than 9,000 US citizens are registered with the US Embassy in Nairobi as residents of Kenya. US business investment is estimated at about $285 million in commerce, manufacturing and tourism.



Map Source: CIA factbook

Overall in FY 2008 tea led exports totaled $850 million and horticulture exports followed with $838 million. Tourism remains significant at about $760 million. In terms of trade partners, African countries are Kenya's largest export market, followed by the European Union. AGOA exports, primarily in garments, fell from U.S. $265 million in 2006 to U.S. $245 million in 2008.

U.S. assistance to Kenya is substantial. The assistance program promotes broad-based economic development as the basis for continued progress in political and social areas. The U.S. assistance strategy is built around five broad objectives: fighting disease and improving healthcare; fighting poverty and promoting private sector-led prosperity; advancing shared democratic values, human rights, and good governance; cooperating to fight insecurity and terrorism; and collaborating to foster peace and stability in East Africa.

The Consultant met with staff at the US Embassy in Nairobi. Of particular interest to the efforts of this DM was information shared concerning the Geothermal Development Company ("GDC") and their approach to financing drill rigs for geothermal field exploration from US suppliers possibly through the US Export Import Bank. Also useful to the DM Consultant was the staff's local knowledge concerning the country's struggle in its use of hydro resources for energy sources versus maintaining a balance for agricultural uses. This clearly, in a drought condition, can be a political "hot button" and favors USTDA's support of alternative energy sources. The staff confirmed the country's emphasis on wind, solar and geothermal energy going forward and agreed that some sort of training was appropriate especially considering difficulties setting tariffs for renewable energy as well as improving efficiency of generation. The Consultant shared information gathered during the Mission with the Commercial Section during a debriefing at the end of the country visit.

Foreign Aid and Finance

Kenya is a recipient of foreign aid from a number of international sources. A summary of the major US-associated donors is as follows.

World Bank Assistance
The first loan by the World Bank to Kenya was in 1960 for an agriculture project. From that initial project, Kenya has received nearly one hundred credits and grants by the International Development Association (IDA) with a total net commitment of about US$ 4.5 billion. As of March 2010, the World Bank's portfolio in Kenya consists of 16 active operations (including a grant from the Global Environment Facility), with total commitments of over US$1.4 billion. The largest share of commitments is in infrastructure (US$770 million) which includes the sub sectors of transport (US$460 million), energy (US$160 million and water and sanitation (US$150 million). These are followed by support in agriculture and rural development at approximately US$360 million.

U.S. Agency for International Development
U.S. Agency for International Development (USAID) and Department of State assistance to Kenya in 2009 as budgeted is approximately US$700 million. This consists of a range of donor funds from Peace and Security areas through Health and Economic assistance.

Millennium Challenge Account
Kenya was named eligible for MCC Threshold Program assistance on November 8, 2005. Ongoing activities in support of Kenya is the signed $12.7 million MCC Threshold Program agreement focused on reducing public sector corruption by overhauling the public procurement system, with a specific concentration on health care procurements throughout the supply chain.

US Export-Import Bank
The United States Export-Import Bank (USEXIM) is open for financial transactions in Kenya for both public and private sectors with flexible tenors in the full range of bank offerings.

International Finance Corporation
The International Finance Corporation (IFC) a member of the World Bank Group promotes sustainable private sector investment in developing countries as a way to reduce poverty and improve people's lives.

In Kenya, IFC has supported a number of private sector projects including K-Rep Bank- a micro finance institution with about 400 employees; Magadi Soda Company- a company which utilizes Lake Magadi's trona (trisodium hydrogendicarbonate dihydrate) to produce sodium carbonate for a variety of manufacturing processes; Magana Flowers- a private company with a workforce of 500 permanent employees; and Serena Hotels- owning and operating seven hotels in various African Countries and employs 1,200 in Kenya alone.

Energy Sector and Renewable Energy

As has been noted in discussion above, the energy sector continues to be an area where much assistance and improvement is needed. Currently, only 18 percent of Kenyans have electricity in their homes and moreover only 3 percent in rural areas. Kenya's electricity demand is projected to grow from the current 1,365 MW to over 10,000 MW in the next 20 years. The current installed capacity is heavily hydropower based, making it reliant on adequate rainfall; an issue in the ongoing country-wide drought situation. The Consultant experienced the energy shortage firsthand as while in Nairobi there were daily blackouts for short periods of time. Additionally, during interviews with private sector energy groups, it was learned that there were entire days that sections of the major cities and region were without power due to rolling "planned" blackouts.

Current installed capacity in Kenya is as follows:

Category	Capacity (MW)			
	Installed	% Share	Effective	% Share
Hydro	761	55%	748.3	55%
Geothermal	163	12%	163	12%
Wind	5.45	0%	5.5	0%
Thermal	419.6	30%	401.1	30%
Off Grid	14.2	1%	12.5	1%
Co-generation	26	2%	26	2%
Sub-total	1389.3		1356.4	
Emergency power	*290*	17%	*290*	18%
Total Capacity	1679.25		1646.4	

Source: GDC

The emergency power of about 300 MW is as a result of drought conditions experienced in the last few years, which made the available capacity as low as 900 MW.

The electricity sector in Kenya is governed by several Government of Kenya (GoK) agencies responsible for the production and distribution of energy. Each of these agencies was visited during the course of the DM as noted. A brief description of each follows:

Kenya Power and Lighting Company Ltd (KPLC)
The DM made several visits to KPLC and met with representatives of the engineering, training, accounting and human resources staffs. KPLC was very interested in USTDA and organized a series of structured meetings to present their needs to the Consultant. KPLC is responsible for the transmission and distribution of electricity throughout Kenya. It buys energy and owns and operates the entire electricity grid and sells electricity to about 980,000 customers with a growth rate of 6.5% per year. The total length of the system is approximately 30,400 km of 220KV, 132KV and 66KV service. KPLC also has an agreement with Uganda to purchase 20 MW of energy as needed. The Consultant learned that renewable energy tariff structures are a consideration as private sector and government entities develop new energy supplies. KPLC, as

part of a multi-agency team (a Tariff Committee), are involved in the development of renewable energy tariff structures in coordination with the Ministry of Energy.

The Consultant met with the director of the KPLC Training School to discuss its needs for capacity expansion and technology remodeling. Current training facilities are outdated and do not accurately reflect new technology being deployed. For example, they would like modern energy management simulators and the ability to incorporate specific timing in renewable energy dispatch. Additionally, meetings were held with the Director of Procurement to discuss specific department needs. KPLC asked for assistance to re-evaluate a 1986 hydropower study to look at hydropower sites for possible new development including significant hydropower projects at Nande River, Kanuga, Mutunga, Low Grand Falls, High Grand Falls and Higan Falls. At the time these projects were deemed less economical than alternatives. With prevailing electricity prices and improved efficiency, KPLC expects that these would now be economically attractive.

KPLC is faced with a need to integrate the electricity from new planned renewable energy projects into their grid. This can be a challenge for non-baseload type power such as wind and solar with issues such as understanding the cost structure of these projects to assist in determining suitable tariff structures, understanding the difference in available technology, and the financing challenges associated with these projects. While KPLC has been approached by several unsolicited new power project promoters, it is embarking on a mission to create areas of priority for wind development, solar, and others, based on optimal conditions, locations vis-à-vis grid and demand, all in the interest of "promoting the sector's development" but on a planned basis and thus resulting in more sustainable tariffs.

Ministry of Energy (MOE)
The Ministry of Energy is responsible for overall energy policy formulation with duties such as issuing generation and distribution licenses. The DM met with the head of the MOE Renewables Group and discussed various subjects affecting energy policy in Kenya. The Ministry suggested that it might benefit from a program to promote renewable technologies and attract investors. Furthermore, it could benefit from technical assistance to demonstrate the interpretation of wind data.

One recurring theme with the Ministry and other government officials was a "disagreement" over the initial capital costs and resultant tariffs which are part of a strategy to develop new renewable projects in Kenya (and shared by Tanzania and Rwanda officials as well). Officials interviewed by the Consultant communicated that they would benefit from gaining a greater understanding of the technologies and structure of renewable projects. In the words of Mr. Khazenzi, Renewables, Ministry of Energy; the "technical know-how in solar" and other technologies "is lacking".

In meetings with the MOE, the Consultant learned that Kenya had recently updated its "Electricity Sector Investment Prospectus for 2009-2015". Although the MOE would not provide us a copy, the Consultant suggests that it be requested by USTDA or embassy commercial staff for US companies to learn about future countrywide plans in energy and thus potential project/export opportunities.

The MOE shared that there is a recently completed country wind map, which they expect will be used to focus the promotion of new wind projects to those areas with highest potential, and suitable distances from the grid and demand. The Turkana wind project was cited as an example of a project with the greatest wind potential, yet 260 miles away from a grid connection. While the latest information suggests that project will be advancing, future projects should have a better balance of location and resource availability.

Kenya Electricity Generating Company (KenGen)
KenGen manages power generation facilities and as Kenya's principal electricity producer, accounts for about 75 percent of the country's 1,165 MW installed capacity. KenGen is also responsible for developing generation facilities to meet future demand requirements. KenGen is familiar with USTDA through a past completed project on transmission lines which was performed by the US company Power Engineers.

Discussions during the Mission centered on several projects planned by the group. Wind projects are being considered since KenGen already generates 5.4 MW of wind power. The agency has also recently installed Atlas wind measurement devices at twelve (12) locations and has been collecting data for potential new generating systems. It was suggested that USTDA fund a study to analyze this collected data and prioritize these sites, then market the results to wind project promoters. General Electric is in discussions with KenGen to work with them on this activity. KenGen estimates the wind potential in Kenya at approximately 4,000 MW. In addition, KenGen suggested a need for specific assistance in identifying the most promising wind sites in the Ngong area which would include erecting wind masts, logging data, and performing other analyses.

KenGen has secured the license for a 700 MW (estimated) block on a geothermal field and is planning on developing it. Internal engineering has estimated the need for three (3) wells in order to quantify the fuel supply at an approximate cost of US$5.5 to US$6.5M per well. KenGen is currently working on a plan to secure drilling rigs for this phase.

KenGen also has a need for an advanced solar energy study. A "preliminary approach document" has been generated internally, but they are seeking an effort to attract financing for solar projects throughout the country. Additionally, this organization would benefit from a structured presentation on solar thermal technologies and how they may apply to Kenya.

Rural Electrification Authority (REA)
REA was created in 2006 and charged with the expansion of electricity to rural areas. Under a recently adopted Master Plan, its goal is to provide electricity to rural populations by 2010. The Consultant confirmed that the three countries visited during this DM; Kenya, Rwanda and Tanzania all continue to struggle with the provision of electricity to rural populations.

Mr. James Mureithi, REA confirmed that REA is actively involved in an increased GoK effort to bring rural areas "on line". The agency is developing a framework for public/private partnerships to assist in rural electrification. This is currently being studied by an external consultant with plans to have recommendations in 2010. The GoK is funding 8 new diesel plants in 2010 to aid in the coverage for rural areas. The priority for REA in the provision of energy is as follows: 1) health centers, 2) water bore holes and 3) residential customers.

An interesting fact about rural electricity coverage and resources in Kenya is that generally where the grid already exists is where hydroelectric resources also co-exist. This further challenges the provision of off-grid rural energy. REA has considered making an effort to attract private sector development of off-grid hydro power plants of less than 10 MW, but to date the current effort has only focused on developing diesel powered plants for off-grid applications.

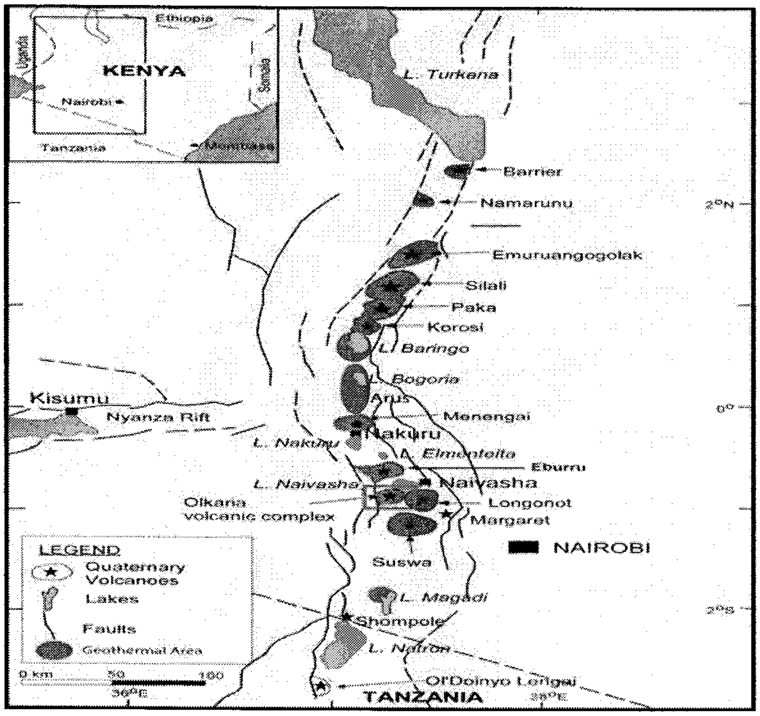
The Master Plan identified only one (1) potential small hydropower project for potential near-term development situated on the Mala River. The project was visualized to be used as a standalone power plant or interconnected to an isolated grid for voltage stabilization. An interesting project being evaluated by REA is a biogas projects for schools in a waste-to-energy scenario.

Discussions with REA also involved the subject of the tariff structure found in rural projects; typically uniform at US$.14-.15 US cents per kwh for all types of energy production. In relation to this and other subjects specific to new projects, REA was quite interested in some sort of Orientation Visit where information could be exchanged and gathered on rural applications of renewable technologies, methodologies and deployment.

Kenya Electricity Transmission Company (KETRACO)
Ketraco is responsible for new construction transmission lines especially in support of the GDC development efforts. As with many developing and rural countries Kenya is in great need for an expansion of their existing distribution network to serve rural areas.

Geothermal Development Company (GDC)
Established by the 2006 Energy Act and formed in December 2008, GDC is responsible for exploiting geothermal resources and encouraging development of new private sector energy producers. GDC's mandate is to "assume responsibility" for developing geothermal resources in an upstream scenario and making these available to private sector power producers in order to take the risk of resource development out of the responsibility of the private sector and allow for a lower final cost of electricity to consumers. Their goal is to produce 5,000 MW by 2030 from geothermal resources in Kenya. In order to meet this goal, GDC decided that they had to rely on attracting private sector geothermal developers. GDC will undertake resource investigations and production at sites such as Longonot, Suswa, Menengai, Lake Magadi and Lake Bogoria. The Consultant learned that of the roughly $30 billion budget for the Ministry of Energy, $5 billion is earmarked for GDC and the development of the geothermal fields.

Below a map of the geothermal prospect sites in Kenya:



The short range plan is for GDC to have well data to provide to the development industry in about a year and a half. The Consultant understands that USEXIM has been approached to assist in the acquisition of US drill rigs to begin the program. The existing geothermal field in the Rift Valley will be divided into blocks for resource allocation. Developers will be "guaranteed" certain quantities and quality of geothermal resources and be required to produce a committed level of energy output.

GDC is keen on the assistance it can get from USTDA to implement its ambitious program. Suggested areas for assistance include technical/technology, resource monitoring policies, lessons learned in geothermal development, steam sales agreement, solicitation for power development, financial/economics, marketing and project planning and management.

An additional visit to Kenya was undertaken by the Consultant in March and included a follow-up visit to GDC. GDC's approach had been modified from a risk sharer in the exploration of the steam resource, to becoming the sole supplier of the steam resource and hence taking on all the risk and financing needs to make the steam available for power plant owners. This new approach led to important changes in the proposed terms of reference discussed between GDC and USTDA. The Consultant believes this new approach, complemented with the GDC mandate, with committed funding from the GoK and external donors, increases Kenya's ability to truly develop its geothermal energy potential.

Enabling Activities and Other Projects

In 1997, the government of Kenya enacted legislation, the Electric Power Act No. 11 in order to make the industry more receptive to private sector participation in the generation of electricity. One suggested source of energy to meet the forecasted needs is Kenya's abundant geothermal resources. Industry estimates agree that the country has the potential to generate approximately

7,000 MW from geothermal resources over and above the current 202 MW (inclusive of recent work on a 35 MW expansion). According to information received from KPLC, the current electricity generation mix currently stands at 55 percent hydro, 30 percent thermal (fuel oil or diesel) and 15 percent geothermal. Private sector energy producers currently provide about 30% of the country's energy supply.

Other renewable energy activities include plans for a 50 MW wind project as Osiwo and a 60 MW wind project at Kinangop. Both projects are currently in the wind resource measurement stage. A 40 MW wind project is also being considered in Limuru. The Consultant also learned that an additional 5 MW is due to come on line from a new Belgium-funded private sector wind project at Ngong Hill near Nairobi. A sugar bagasse project at Mumias located about 400km from Nairobi is coming on line with 26 MW sold into the grid.

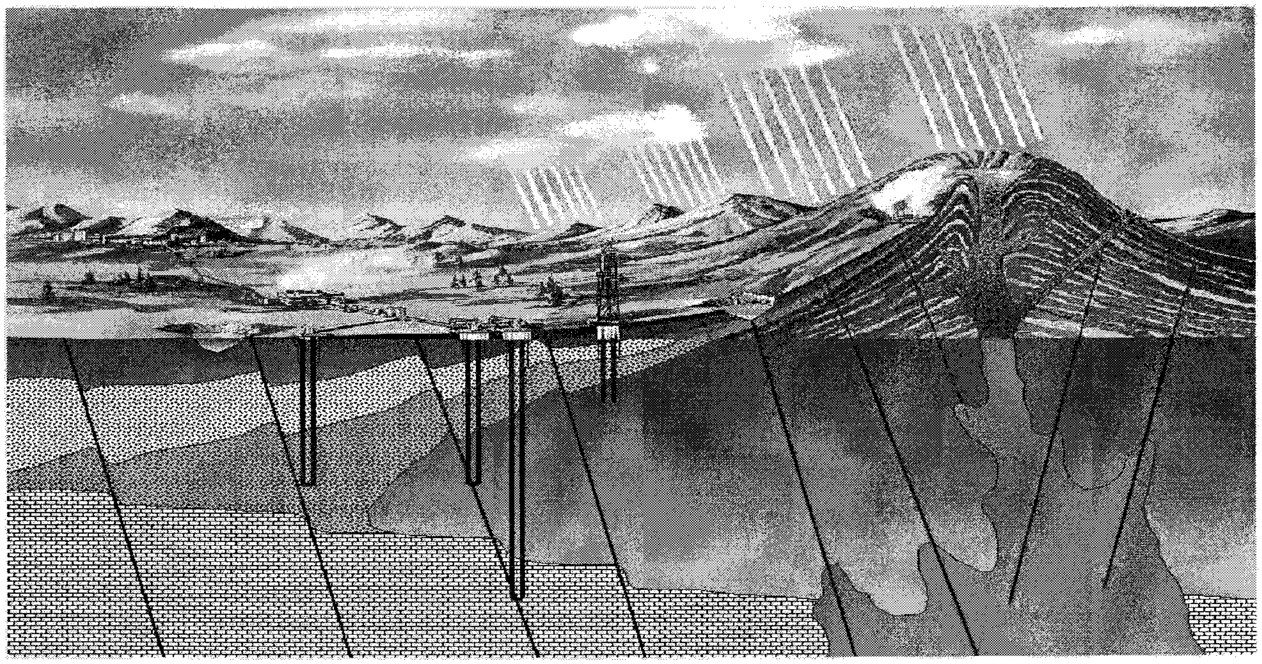
The largest renewable sector energy project under development project is a 300 MW wind farm at Lake Turkana. The project is being developed to provide clean power to Kenya's national electricity grid utilizing wind resources in Northwest Kenya near Lake Turkana. The Consultant has learned that as of March 2010, a 70% stake in the project will be offloaded to South Africa's Industrial Development Corporation and Aldwych International, a London-based energy group. Current plans are for the project to provide its first energy (50 MW) into the grid by 2011. Reportedly, it has negotiated a feed-in tariff of 7.22 euro cents. Overall financing seems to be in place.

During its Mission, the Consultant learned that one project challenge that remains for the Lake Turkana project is that the project requires the construction of a new 260 mile 240KV transmission line (presumably to be managed by Ketraco) to interconnect with the existing grid at Suswa. It was suggested that some sort of build-own-operate (BOO) structure may be considered. This had been a major stumbling block to the progress. Recently the Spanish government agreed to fund $150 million towards the transmission line, presumably giving new "wind" to the Turkana development.

Geothermal Power in Kenya

Geothermal Energy currently accounts for approximately 202 MW or 12% percent of the total national energy production as of late 2009. Production has increased from 45 MW in 1999 to the current levels. Recently, the Japanese government announced that it will lend $316 million for the expansion of the Olkaria I geothermal power plant. Olkaria I, the first geothermal power plant in Africa, has been operating at 45 megawatts of total power capacity through its three generation units. The Japanese funding will be used to build the plant's fourth and fifth power generation units adding 140 MW to the plant's capacity. Additionally, KenGen is building the 35 MW Olkaria II geothermal plant expansion and longer term has plans to construct another geothermal station; Olkaria IV.

Preferred conditions for geothermal power plants include the source of a hot geothermal fluid with low mineral and gas content, shallow aquifers for producing and re-injecting the fluid, suitable land issues to aid in permitting and acceptance, proximity to existing transmission lines or load, and availability of make-up water for evaporative cooling. As a general rule, geothermal fluid temperature should be at least 300° F, although plants are operating on fluid temperatures as low as 210° F.



Source: GDC

The costs of developing and operating a geothermal power plant are heavily weighted on early development cost such as resource identification, drilling and pipeline construction costs. In the US for example, the initial cost for the development of the steam field and power plant averages $2,500 per kW for plants over 1 MW. Operating costs average about 1-3 cents per kWh. In Kenya for example, feed-in tariffs for wind, solar, and small hydro range from US 8-12 cents (under 50 MW). Resource needs vary greatly depending on the quality of the steam/water fuel as well as costs for re-injection and waste management (silica, zinc, sulfur). In general, a close-loop binary cycle plant would require about 450-600 gallons per minute to generate 1 MW from a 300 degree fluid at an air temperature of 60 degrees. An evaporative cooling system would add the need for about 70 gallons per minute of clean cooling water for that same 1 MW. Geothermal power plants are configured depending on the specifics of the resource utilized. The following is a brief description of types of geothermal plants.

Dry Steam Power Plants utilize hydrothermal fluids that are primarily steam. The steam is used directly to power a turbine, and then drive a generator producing electricity. This is the oldest type of geothermal power plant dating back to 1904 in Italy and is similarly used at the Geysers power plant in the US. Emissions from these type of plants are only excess steam and minimal gases.

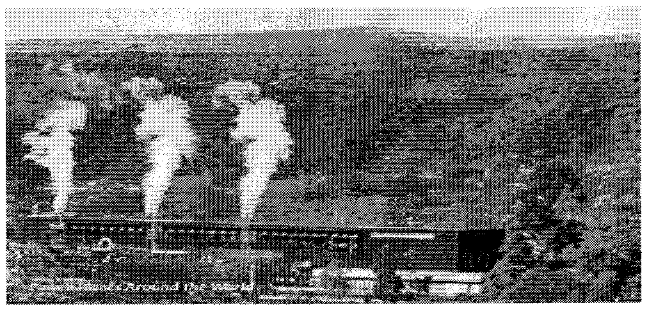
Flash Steam Power Plants utilize hydrothermal fluids above 360 degrees and are sprayed into a tank of lower pressure causing vaporization or "flashing" of the resource which then drives a turbine and subsequently a generator. It is possible to flash the remaining liquids a second time and produce additional electricity.

Binary Cycle Power Plants utilize more moderate temperature water or geothermal fluid under about 400 degrees which are combined with a secondary fluid of a lower boiling point than water (binary) and pass through a heat exchanger. The secondary fluid flashes and then drives turbines to generate electricity. This is the most likely future of geothermal power plants because the process results in low emissions and can utilize the wider available 'moderate temperature' water resources found around the globe.

A brief description and file photo of the current, major geothermal plants in Kenya found below. Photos are courtesy of "Power Plants Around the World".

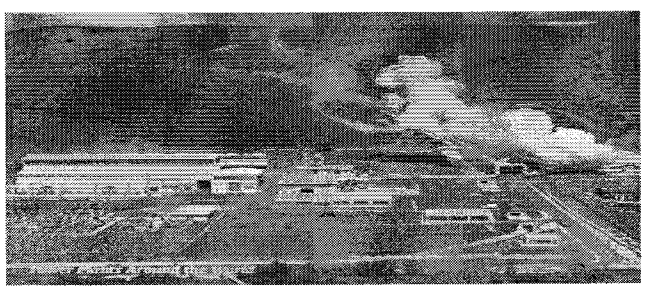
Olkaria I

Olkaria I was the first geothermal power plant in Africa. Built in the 1950s it produces 45 MW of energy to the national grid via a 132kV transmission line.



Olkaria II

Olkaria II is the largest geothermal power plant in Africa and located in the northeastern area of the Olkaria geothermal field in Kenya. Built in 2000 construction of the plant was co-financed by the World Bank, European Investment Bank and KenGen. The plant produces 105 MW of power. Transmission is connected to the grid via a 220kV double-circuit line to Nairobi.



Olkaria III

New generators were installed at Okaria under an IPP arrangement with Ormat. Olkaria was the first privately funded and developed geothermal project in Africa. The project produces 48 MW under a 20 year build-own-operate arrangement. Electricity is wheeled to the national electricity grid.

Carbon Credits and Geothermal Energy

Carbon trading is the sale of gases that contribute to global warming, e.g. carbon dioxide, which are not emitted to the atmosphere following installation of environment friendly production systems. Carbon credits are measured in units of certified emission reductions (CERs) where each CER is equivalent to one tonne of carbon dioxide not emitted into the atmosphere. Carbon trading frequently involves the funding of clean energy projects by industrialized nations to meet greenhouse gases emission targets set by Kyoto Protocol under the treaty's Clean Development Mechanism (CDM). As of 2007, the carbon market had grown to over 19 billion US dollars and is much bigger today.

The Consultant learned that KenGen is considering utilizing earnings from the carbon credit market towards development of the country's geothermal energy resources specifically at the Olkaria II 3rd Unit, Eburru, Kipevu Combined Cycle, Kiambere, Sondu Miriu and Redevelopment of Tana Power Station projects.

Preliminary information is that KenGen will earn an estimated Sh 442 million every year from the sale of 662,000 tonnes of carbon credits at Sh670 per tonne to the World Bank. Last year KenGen and the World Bank signed an Emission Reduction Purchase Agreement (ERPA) for the purchase of 900,000 tonnes of carbon generated from one of the six Clean Development Mechanism (CDM) projects from which it has offered to purchase emission reductions. The bulk of the money will be used to finance geothermal development while an additional dollar per tonne of carbon credits will be used in community development projects. The World Bank Community Development Carbon Fund (CDCF) contributes an additional dollar for every purchase of a tonne of carbon credits to benefit communities.

In addition, KenGen has established a CDM Centre in an effort to create a pipeline of CDM projects and to help the energy community take advantage of the Carbon Credit potential. Likewise, on a more regional basis, the African Development Bank has a facility to enable businesses and countries across the continent to take advantage of this situation.

Solar Power

Kenya has had an active market for solar home/standalone systems for almost a decade, during which more than 150,000 units have been installed on a commercial basis and an estimated 15 - 25,000 new systems are being installed yearly.

The Consultant learned in meetings with the Ministry that Kenya is currently the recipient of a grant from the Spanish government to provide and install solar systems in remote government locations throughout the country beginning with schools, dispensaries and health centers. In separate discussions with Kenya's REA, it was confirmed that only about 200 dispensaries had received some sort of energy source out of approximately 2000 nationwide. The systems include a 4-hour battery storage design. A listing of the projects is found in the Appendix. Although this project is sourced and underway, the information may be useful to US companies seeking to export similar systems to other parts of this region in particular or Africa.

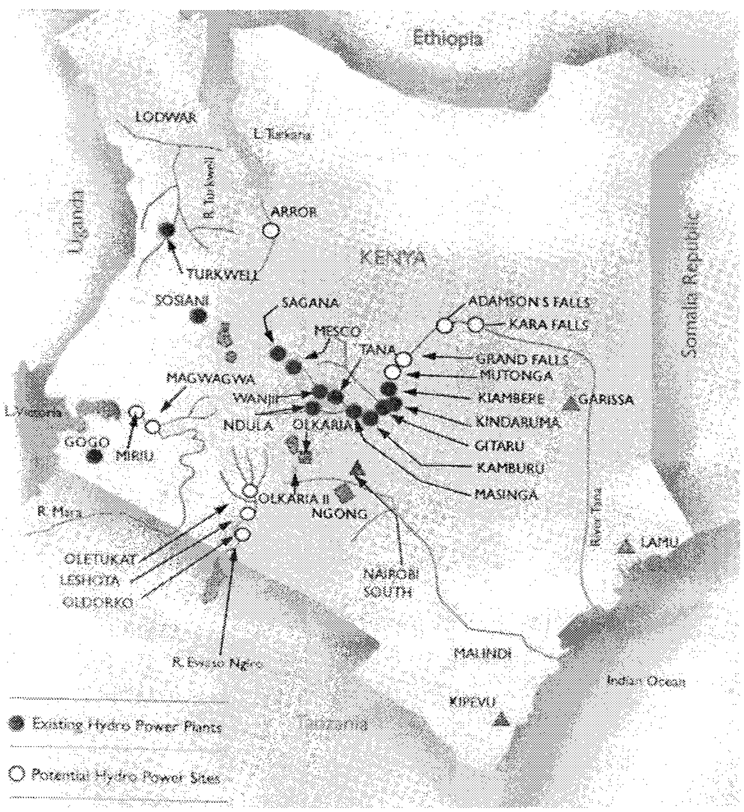
Wind Power

Kenya could use assistance in further detailed development of an existing wind map to aid in attracting wind developers. The Consultant learned that KPLC had requested the map to attempt to overlay the existing transmission distribution network on wind availability to aid in project siting. It was interesting to learn that KPLC was not aware of a wind map that existed at the Ministry of Energy as discovered by the Consultant's visit to both agencies.

The Consultant learned that a wind project on the coast near Malinde for up to 120 MW was being considered. On the Ngong Hills, an additional ~150 MW is also in advanced stages of development made up of different private sector led projects and KenGen. Several wind masts have been erected to obtain the wind data which financiers and engineering teams will require to optimize the wind farm/s. The wind developers are attracted by tariffs of approximately US 9-10 cents per KWh which KPLC is prepared to offer.

Hydroelectric Power

The Consultant learned that the Ministry of Energy is in the process of investigating small hydro projects throughout the country with an estimated generating capacity of 22 MW total. A feasibility study has been accomplished for 10 sites in a study funded by the Ministry. Particular emphasis has been placed on areas which support tea growing and its commercial interests. The Ministry would like to evaluate another 10 sites in 2010. The following graphic map highlights the existing major hydroelectric plants throughout Kenya.



Map Source UNFCCC

Bagasse

Currently, Kenya receives 26 MW of energy from the Mumiass sugar refinery selling energy directly to the grid. However, the Consultant learned that the sugar industry is changing and low cost sugar is being imported into Kenya, reducing the demand for locally grown and processed product. This will result in a lower sugar production from these refineries and hence lower energy production from sugar cane bagasse. The Ministry suggested that the project could move to more of an ethanol "play" should the sugar economics dictate. It was learned that the responsible party to manage further discussions on this subject is the Minister of Agriculture.

Technical Assistance

Grantee Background

In 2008 the Government of Kenya created the Geothermal Development Company (GDC), a 100% state-owned corporation registered under the Companies Act (CAP 486) as a special purpose vehicle to accelerate the development of geothermal energy in Kenya. GDC reports to the Ministry of Energy (MoE).

GDC's mandate entails the following activities:

- Conduct surface exploration, exploration and appraisal drilling, and development of low temperature and direct use of geothermal energy.
- Sell the geothermal energy to power generators with a steam sales agreement.
- Manage public resources such as drilling rigs.
- Develop human capacity in Geothermal Technology in Kenya.
- Support and promote development of alternative uses of geothermal resources.
- Consult on geothermal energy, other geo-science and resource projects, environmental studies and project management.
- Market geothermal as an environmental friendly and least-cost power source for Kenya.
- Support GOK efforts to attract funding and investment in geothermal energy for rapid development.

GDC aims to facilitate the realization of an additional 5,000 MW from geothermal in the next 20 years (year 2030). GDC has developed a 10 year business plan whose objectives are to:

- Facilitate the realization of at least 2,000 MW in ten years through an accelerated development program.
- Lower the cost of electric power by providing geothermal fuel (steam) to power generators by way of undertaking exploration and appraisal drilling for all fields in order to mitigate upfront and supply risks associated with geothermal prospecting and encourage private sector participation.
- Attract capital for accelerated development by opening up opportunities for private sector participation in the power generation schemes

- Provide early access to electricity by investing in early generation through wellhead units, which will in turn generate revenue for supporting budget requirements for subsequent GDC activities.
- Promote alternative uses of geothermal resources.
- Build and enhance local human resource capacity to support a high level of geothermal development through the establishment of a geothermal training institute and ongoing program for collaboration with other training institutes worldwide.

Development Strategy

Due to the massive capital required to realize the 5,000 MW (~US$16b of capital investment requirements), a joint effort by GDC and both the public and private sectors is crucial to ensure success in this geothermal development. GDC will facilitate private sector participation by:

- Undertaking upstream activities and thereby reducing upfront resource exploration, appraisal and supply risks that have been a deterrent to investment in this sector,
- Guarantee the supply of the steam resource through a steam sales contract
- Determine generation potential according to the location and MW generation potential of the proven wells, and through competitive bidding offer the steam for public and private sector development of the power plant project/s.
- Setting aside a special fund through the steam sales revenues to continue the exploration of other prospects, management of the existing resource, supply guarantee commitments and its financial risks, and eventual equipment replacement.

GDC further aims to contribute to lower the unit cost of power to the end user, and to that end will determine a suitable feed-in tariff for the steam, and undertake competitions for the power generation based on tariff, or other methods. This goal is expected to reduce poverty by spurring micro-economic activities and industrial growth, thereby creating jobs and improving the social well being of Kenyan Citizens

Development Program

Kenya is well positioned to exploit its vast and largely unrealized geothermal potential resources estimated at 7,000 MW to 10,000 MW that are spread in over 14 high potential sites along the Great Rift Valley.

The table below shows fields scheduled for development in the next 20 years, status of their development and dates when further development is scheduled to commence. The 10 year development plan is part of this larger plan.

Summary of Status and Planned Field Development over the next 20 years								
FIELD	**Olkaria**	**Menengai**	**Silali**	**Paka**	**Korosi**	**Emurua-Ngogolak**	**Barrier**	**Arus Bogoria**
Potential	1000	1250	800	500	450	650	450	400
Exploration								
Surface	YES	YES	YES	YES	YES	2010	2010	YES
Detailed	YES	YES	2010	YES	2010	2010	2010	2010
Drilling								
Exploration	YES	2010	2011	2012	2022	2020	2024	2027
Appraisal	YES	2011	2012	2012	2022	2021	2024	2027
Production	2009/ 2010	2012	2012	2013	2023	2011	2025	2028

Currently, several investors have been authorized to develop geothermal in Olkaria I, II & IV, Olkaria III, Longonot and Suswa fields.

Benefits

The proposed USTDA assistance to GDC would result in further assisting the Government of Kenya in developing their geothermal resources, more effectively attract qualified power developers using transparent competition, and thus provide cost effective energy to Kenya users and offtakers. This would translate directly into continued employment and economic growth for the Country of Kenya.

Enabling Activities

GDC, by its inception and funding has the necessary support and visibility of the Government of Kenya. Recommendations by GDC to further the development of geothermal energy and power generation are expected to obtain swift reaction from the GOK, enabling legislation as required to accommodate the implementation.

Location

The USTDA Technical Assistance efforts would involve provision of services at GDC headquarters in Nairobi, with some limited sitework at the geothermal fields. Additionally, some work may take place in the US at the office locations of the selected Consultant.

Development priority

The GDC initiative is a high priority for the Government of Kenya as is demonstrated by the creation and important funding of a special dedicated group (GDC) to manage the exploitation of the geothermal resource. Additionally, it is also an environmental friendly project and will lessen Kenya's reliance on hydroelectric power, another well-deployed renewable energy source in Kenya, which has proved inadequate in times of drought. If well-managed, electricity generation from geothermal resources can provide very competitive long term tariffs for the Kenyan end-users, improving the competitiveness of their industry and lowering costs to the residential users as well.

Financing and Risks

GDC has received government funding in excess of $70 million, and has the ability to obtain additional financial support for drilling programs. Most recently donors have pledged 30 billion Kenyan Shillings (~$370 million) towards the drilling of wells and development of facilities. The cost of drilling and making the resource available will be for the account of GDC (and the funds the government and donors have committed). The power generation plants will be funded by third parties, ranging from financial investors and strategic investors such as power developers and utilities. In terms of risk, the actual "proving" of the geothermal output is the primary financial risk, after which is the extraction and guarantee of output pressure and chemistry. With GDC taking on these risks, the power generation is significantly less risky than typical geothermal energy schemes, and follows a more traditional fuel-to-energy model. From an offtaking standpoint, the GOK will facilitate power purchase agreements with Kenya Power and Light Company, a GOK entity with bankable PPA precedents, and the market and infrastructure to distribute the new electricity output.

The proposed USTDA assistance will aid in ascertaining GDC's ongoing role to manage the resources and select suitable investment and operating partners, and will serve to further mitigate the operational and financing risks.

Social and Environmental Impacts

The proposed plans for geothermal development will result in job creation through the use of local labor for design, construction and operation of individual power plants as they are constructed.

Additionally, support of the Government's efforts to increase exploitation of the natural geothermal resources in Kenya have a positive environmental impact. These projects will lessen their dependence on hydroelectric-source energy and emergency diesel power (which is becoming an everyday occurrence), and supports a clean energy source.

The Consultant found during its site visit to Kenya, numerous power outages especially during evening hours in Nairobi. Interviews with local business in Nairobi suburbs also confirmed that fairly major power outages (sometimes several days per week) were occurring regularly. These outages have subsided somewhat as the rains have come in December and January, yet the continued growth in the economy and the lessons learned from the effect of drought on the power supply will force the GOK to continue facilitating the development of new generation.

US Export Potential, Competition and Impact of US Jobs

US exports would be expected from the implementation of the USTDA Technical Assistance. For example, US engineering and geothermal design firms, geothermal drilling and extraction manufacturers, and power generation equipment suppliers would benefit from the projects. Additionally, process engineers and manufacturers of valves, controls, software and electronic control systems would be able to provide goods and services in support of the projects. The US geothermal power output is the largest in the world with an installed capacity of over 3,100 MW. According to the Geothermal Energy Association the industry expects to reach over 6,000 MW during the next few years. Hence there is a significant amount of US based suppliers for the construction of extraction and power generation plants in the geothermal sector. The program planned by GDC would require approximately $16 billion for 5,000 MW. Assuming 10% of that is accomplished this will require $1.6 billion in investment, of which more than 50% could be supplied from US exporters.

Project Contact

The contacts for the GDC project are:

Geothermal Development Company:

Dr. Silas Simiyu, Managing Director & CEO
Email : ssimiyu@gdc.co.ke

Mr. Paul Ngugi, Manager, Planning & Strategy
Email : paul.ngugi6@gmail.com

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Ministry of Energy:
Eng. R.M. Khazenzi, Principal Superintending Engineer (Renewable Energy)
khazenzirm@energy.go.ke
Nyayo House, 24th Floor
P.O. Box 30582
Phone: +254 20 310 112

Contractor's Capabilities

The Contractor's team should be comprised of individuals with specific expertise relevant to the issues associated with wellhead power generation concessions, development of energy resources such as geothermal, as well as the East Africa region, and relevant regulatory and financial analysis expertise. The team leader should have at least ten years experience in his/her respective field of expertise with an emphasis on power generation projects, geothermal resource extraction and exploitation concessions.

The project team should be composed generally of the following: project manager, assistant project manager, geotechnical engineering expertise, power/controls, process, mechanical/electrical and industrial engineering expertise, engineering and multi-discipline design expertise, legal specialist knowledgeable in applicable energy concession contracts and regulatory issues, local counsel, finance specialist, all with similar international power and process facility development and planning experience.

Office & Stationery

The Contractor is made aware that the provision of the following facilities/services will be its responsibility:

- The provision of accommodation and office facilities/equipment
- The provision of all vehicles and transport arrangements

Project Schedule

Weeks	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Kick-Off, Initial Work Plan and Review																				
Investment Model Development Assistance																				
Criterion for Private Investors																				
Financial/Economic Modeling																				
Risk Management																				
Training Workshops																				
Development Impact Assessment																				
Final Report																				

Project Budget

GDC Technical Assistance BUDGET												
		Level of Effort in Days										
Labor		Project Manager - Sr. Geothermal Energy Expt	Asst PM - Energy and Procurement	Power Engineer Consultant	Sr. Project Development and Financial	Financial Analyst	International Counsel - Concession/	Local Counsel - Energy	Local Geothermal Engineer	Admin/ Junior		
Tasks	Day Rt	$ 1,900.00	$ 1,500.00	$1,200.00	$ 1,700.00	$ 900.00	$ 2,000.00	$1,000.00	$ 600.00	$400.00	LOE	**Total Cost**
1. Kick-Off, Initial Work Plan and Review		10	14	10	7			3	7	3	54	$ 72,300
2. Investment Model Development Assistance												
a. evaluate Investment/s models		5	4	4	2	0	4	4	3	8	34	$ 40,700
b. Investment/s implementation		5	5	5	4	0	4	5	2	8	38	$ 47,200
c. draft contracts		3	2		2		10	5		1	23	$ 37,500
d. current concession review		2	2	2	2	2	1	2	3	2	18	$ 21,000
3. Private Investors Analysis												
- Investor Analysis		4	1	1	4	5	1	1		2	19	$ 25,400
- Bidding criteria and Sample RFP		4	3	4	4	2	1	2	1	3	24	$ 31,300
4. Financial/Economic Modeling												
- Investment/s Models		3	4	4	3	6	0		2	1	23	$ 28,600
- GDC Model		4	3	2	4	5				3	21	$ 27,000
5. Risk Management		4	3	2	2	1	3	4	2	3	24	$ 31,200
6. Training Workshops		8	8	8	4	4	2	2	3	6	45	$ 57,400
7. Final Report												
- Draft Report		5	2	2	2	2	2	2	1	6	24	$ 29,100
- Workshop presentation		6	6	2	3	2	3	5	4	5	36	$ 45,100
- Final Report		3	2	1	0.5	1	0.5	1	1	5	15	$ 16,250
Total LOE		**66**	**59**	**47**	**43.5**	**30**	**31.5**	**36**	**29**	**56**	**398**	
Labor Sub-Total		**$ 125,400**	**$ 88,500**	**$ 56,400**	**$ 73,950**	**$ 27,000**	**$ 63,000**	**$ 36,000**	**$ 17,400**	**$22,400**		**$ 510,050**
ODCs												
Number of Trips		4	5	3	3	2	3			3		
Airfare Unit Price (as of 2/2010)		$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000	$ 2,000			$ 2,000		
Total Airfare		$ 8,000	$ 10,000	$ 6,000	$ 6,000	$ 4,000	$ 6,000			$ 6,000		46,000
Number of Days Abroad		40	41	24	15	8	15			19	162	
Per Diem Rate (per day)		$ 378	$ 378	$ 378	$ 378	$ 378	$ 378			$ 378		
Total Per Diem		$ 15,120	$ 15,498	$ 9,072	$ 5,670	$ 3,024	$ 5,670			$ 7,182		61,236
Local Expenses (transport, taxi, misc)												10,518
Other (supplies, phone, xerox, etc.)												12,960
ODC's Sub Total												**$ 130,714**
TOTAL COST		**$ 640,764**				Of which Local Consultants	$ 53,400	8%				

ANNEX3

U.S. TRADE AND DEVELOPMENT AGENCY
Arlington, VA 22209-2131

NATIONALITY, SOURCE, AND ORIGIN REQUIREMENTS

The purpose of USTDA's nationality, source, and origin requirements is to assure the maximum practicable participation of American contractors, technology, equipment and materials in the prefeasibility, feasibility, and implementation stages of a project.

USTDA STANDARD RULE (GRANT AGREEMENT STANDARD LANGUAGE):

Except as USTDA may otherwise agree, each of the following provisions shall apply to the delivery of goods and services funded by USTDA under this Grant Agreement: (a) for professional services, the Contractor must be either a U.S. firm or U.S. individual; (b) the Contractor may use U.S. subcontractors without limitation, but the use of subcontractors from host country may not exceed twenty percent (20%) of the USTDA Grant amount and may only be used for specific services from the Terms of Reference identified in the subcontract; (c) employees of U.S. Contractor or U.S. subcontractor firms responsible for professional services shall be U.S. citizens or non-U.S. citizens lawfully admitted for permanent residence in the U.S.; (d) goods purchased for implementation of the Study and associated delivery services (e.g., international transportation and insurance) must have their nationality, source and origin in the United States; and (e) goods and services incidental to Study support (e.g., local lodging, food, and transportation) in host country are not subject to the above restrictions. USTDA will make available further details concerning these standards of eligibility upon request.

NATIONALITY:

1) Rule

Except as USTDA may otherwise agree, the Contractor for USTDA funded activities must be either a U.S. firm or a U.S. individual. Prime contractors may utilize U.S.

subcontractors without limitation, but the use of host country subcontractors is limited to 20% of the USTDA grant amount.

2) Application

Accordingly, only a U.S. firm or U.S. individual may submit proposals on USTDA funded activities. Although those proposals may include subcontracting arrangements with host country firms or individuals for up to 20% of the USTDA grant amount, they may not include subcontracts with third country entities. U.S. firms submitting proposals must ensure that the professional services funded by the USTDA grant, to the extent not subcontracted to host country entities, are supplied by employees of the firm or employees of U.S. subcontractor firms who are U.S. individuals.

Interested U.S. firms and consultants who submit proposals must meet USTDA nationality requirements as of the due date for the submission of proposals and, if selected, must continue to meet such requirements throughout the duration of the USTDA-financed activity. These nationality provisions apply to whatever portion of the Terms of Reference is funded with the USTDA grant.

3) Definitions

A "U.S. individual" is (a) a U.S. citizen, or (b) a non-U.S. citizen lawfully admitted for permanent residence in the U.S. (a green card holder).

A "U.S. firm" is a privately owned firm which is incorporated in the U.S., with its principal place of business in the U.S., and which is either (a) more than 50% owned by U.S. individuals, or (b) has been incorporated in the U.S. for more than three (3) years prior to the issuance date of the request for proposals; has performed similar services in the U.S. for that three (3) year period; employs U.S. citizens in more than half of its permanent full-time positions in the U.S.; and has the existing capability in the U.S. to perform the work in question.

A partnership, organized in the U.S. with its principal place of business in the U.S., may also qualify as a "U.S. firm" as would a joint venture organized or incorporated in the United States consisting entirely of U.S. firms and/or U.S. individuals.

A nonprofit organization, such as an educational institution, foundation, or association may also qualify as a "U.S. firm" if it is incorporated in the United States and managed by a governing body, a majority of whose members are U.S. individuals.

SOURCE AND ORIGIN:

1) Rule

In addition to the nationality requirement stated above, any goods (e.g., equipment and materials) and services related to their shipment (e.g., international transportation and insurance) funded under the USTDA Grant Agreement must have their source and origin in the United States, unless USTDA otherwise agrees. However, necessary purchases of goods and project support services which are unavailable from a U.S. source (e.g., local food, housing and transportation) are eligible without specific USTDA approval.

2) Application

Accordingly, the prime contractor must be able to demonstrate that all goods and services purchased in the host country to carry out the Terms of Reference for a USTDA Grant Agreement that were not of U.S. source and origin were unavailable in the United States.

3) Definitions

“Source” means the country from which shipment is made.

"Origin” means the place of production, through manufacturing, assembly or otherwise.

Questions regarding these nationality, source and origin requirements may be addressed to the USTDA Office of General Counsel.

ANNEX 4

Kenya-2010-11025A

GRANT AGREEMENT

This Grant Agreement is entered into between the Government of the United States of America, acting through the U.S. Trade and Development Agency ("USTDA") and the Geothermal Development Company Limited, a Kenyan company ("Grantee"). USTDA agrees to provide the Grantee under the terms of this Agreement US$641,000 ("USTDA Grant") to fund the cost of goods and services required for a technical assistance ("TA") on the proposed Geothermal Development Company Capacity Building Project (Project") in Kenya ("Host Country").

PM MD LB LZ JJ PD MB JW PP RC KA

1. USTDA Funding

The funding to be provided under this Grant Agreement shall be used to fund the costs of a contract between the Grantee and the U.S. firm selected by the Grantee ("Contractor") under which the Contractor will perform the TA ("Contract"). Payment to the Contractor will be made directly by USTDA on behalf of the Grantee with the USTDA Grant funds provided under this Grant Agreement.

2. Terms of Reference

The Terms of Reference for the TA ("Terms of Reference") are attached as Annex I and are hereby made a part of this Grant Agreement. The TA will examine the technical, financial, environmental, and other critical aspects of the proposed Project. The Terms of Reference for the TA shall also be included in the Contract.

3. Standards of Conduct

USTDA and the Grantee recognize the existence of standards of conduct for public officials, and commercial entities, in their respective countries. The parties to this Grant Agreement and the Contractor shall observe these standards, which include not accepting payment of money or anything of value, directly or indirectly, from any person for the purpose of illegally or improperly inducing anyone to take any action favorable to any party in connection with the Study.

4. Grantee Responsibilities

The Grantee shall undertake its best efforts to provide reasonable support for the Contractor, such as, office space, and secretarial support. The details of this support shall be agreed in the contract between the Grantee and the Contractor.

5. USTDA as Financier

(A) USTDA Approval of Competitive Selection Procedures

Selection of the U.S. Contractor shall be carried out by the Grantee according to its established procedures for the competitive selection of contractors with advance notice of the procurement published online through *Federal Business Opportunities (www.fedbizopps.gov)*. Upon request, the Grantee will submit these contracting procedures and related documents to USTDA for information and/or approval.

(B) USTDA Approval of Contractor Selection

The Grantee shall notify USTDA at the address of record set forth in Article 17 below upon selection of the Contractor to perform the TA. Upon approval of this selection by USTDA, the Grantee and the Contractor shall then enter into a contract for performance of the TA. The Grantee shall notify in writing the U.S. firms that submitted unsuccessful proposals to perform the TA that they were not selected.

(C) USTDA Approval of Contract Between Grantee and Contractor

The Grantee and the Contractor shall enter into a contract for performance of the TA. This contract, and any amendments thereto, including assignments and changes in the Terms of Reference, must be approved by USTDA in writing. To expedite this approval, the Grantee (or the Contractor on the Grantee's behalf) shall transmit to USTDA, at the address set forth in Article 17 below, a photocopy of an English language version of the signed contract or a final negotiated draft version of the contract.

(D) USTDA Not a Party to the Contract

It is understood by the parties that USTDA has reserved certain rights such as, but not limited to, the right to approve the terms of the contract and any amendments thereto, including assignments, the selection of all contractors, the Terms of Reference, the Final Report, and any and all documents related to any contract funded under the Grant Agreement. The parties hereto further understand and agree that USTDA, in reserving any or all of the foregoing approval rights, has acted solely as a financing entity to assure the proper use of United States Government funds, and that any decision by USTDA to exercise or refrain from exercising these approval rights shall be made as a financier in the course of funding the TA and shall not be construed as making USTDA a party to the contract. The parties hereto understand and agree that USTDA may, from time to time, exercise the foregoing approval rights, or discuss matters related to these rights and the Project with the parties to the contract or any subcontract, jointly or separately, without thereby incurring any responsibility or liability to such parties. Any approval or failure to approve by USTDA shall not bar the Grantee or USTDA from asserting any right they might have against the

Contractor, or relieve the Contractor of any liability which the Contractor might otherwise have to the Grantee or USTDA.

(E) Grant Agreement Controlling

Regardless of USTDA approval, the rights and obligations of any party to the contract or subcontract thereunder must be consistent with this Grant Agreement. In the event of any inconsistency between the Grant Agreement and any contract or subcontract funded by the Grant Agreement, the Grant Agreement shall be controlling.

6. Disbursement Procedures

(A) USTDA Approval of Contract Required

USTDA will make disbursements of Grant funds directly to the Contractor only after USTDA approves the Grantee's contract with the Contractor.

(B) Contractor Invoice Requirements

The Grantee should request disbursement of funds by USTDA to the Contractor for performance of the TA by submitting invoices in accordance with the procedures set forth in the USTDA Mandatory Clauses in Annex II.

7. Effective Date

The effective date of this Grant Agreement ("Effective Date") shall be the date of signature by both parties or, if the parties sign on different dates, the date of the last signature.

8. TA Schedule

(A) TA Completion Date

The completion date for the TA, which is September 30, 2012, is the date by which the parties estimate that the TA will have been completed.

(B) Time Limitation on Disbursement of USTDA Grant Funds

Except as USTDA may otherwise agree, (a) no USTDA funds may be disbursed under this Grant Agreement for goods and services which are provided prior to the Effective Date of the Grant Agreement; and (b) all funds made available under the Grant Agreement must be disbursed within four (4) years from the Effective Date of the Grant Agreement.

9. USTDA Mandatory Clauses

All contracts funded under this Grant Agreement shall include the USTDA mandatory clauses set forth in Annex II to this Grant Agreement. All subcontracts funded or partially funded with USTDA Grant funds shall include the USTDA mandatory clauses, except for clauses B(1), G, H, I, and J.

10. Use of U.S. Carriers

(A) Air

Transportation by air of persons or property funded under the Grant Agreement shall be on U.S. flag carriers in accordance with the Fly America Act, 49 U.S.C. 40118, to the extent service by such carriers is available, as provided under applicable U.S. Government regulations.

(B) Marine

Transportation by sea of property funded under the Grant Agreement shall be on U.S. carriers in accordance with U.S. cargo preference law.

11. Nationality, Source and Origin

Except as USTDA may otherwise agree, the following provisions shall govern the delivery of goods and services funded by USTDA under the Grant Agreement: (a) for professional services, the Contractor must be either a U.S. firm or U.S. individual; (b) the Contractor may use U.S. subcontractors without limitation, but the use of subcontractors from Host Country may not exceed twenty percent (20%) of the USTDA Grant amount and may only be used for specific services from the Terms of Reference identified in the subcontract; (c) employees of U.S. Contractor or U.S. subcontractor firms responsible for professional services shall be U.S. citizens or non-U.S. citizens lawfully admitted for permanent residence in the U.S.; (d) goods purchased for performance of the TA and associated delivery services (e.g., international transportation and insurance) must have their nationality, source and origin in the United States; and (e) goods and services incidental to TA support (e.g., local lodging, food, and transportation) in Host Country are not subject to the above restrictions. USTDA will make available further details concerning these provisions upon request.

12. Taxes

USTDA funds provided under the Grant Agreement shall not be used to pay any taxes, tariffs, duties, fees or other levies imposed under laws in effect in Host Country. Neither the Grantee nor the Contractor will seek reimbursement from USTDA for such taxes, tariffs, duties, fees or other levies.

13. Cooperation Between Parties and Follow-Up

The parties will cooperate to assure that the purposes of the Grant Agreement are accomplished. For five (5) years following receipt by USTDA of the Final Report (as defined in Clause I of Annex II), the Grantee agrees to respond to any reasonable inquiries from USTDA about the status of the Project.

14. Implementation Letters

To assist the Grantee in the implementation of the TA, USTDA may, from time to time, issue implementation letters that will provide additional information about matters covered by the Grant Agreement. The parties may also use jointly agreed upon implementation letters to confirm and record their mutual understanding of matters covered by the Grant Agreement.

15. Recordkeeping and Audit

The Grantee agrees to maintain books, records, and other documents relating to the TA and the Grant Agreement adequate to demonstrate implementation of its responsibilities under the Grant Agreement, including the selection of contractors, receipt and approval of contract deliverables, and approval or disapproval of contractor invoices for payment by USTDA. Such books, records, and other documents shall be separately maintained for three (3) years after the date of the final disbursement by USTDA. The Grantee shall afford USTDA or its authorized representatives the opportunity at reasonable times to review books, records, and other documents relating to the TA and the Grant Agreement.

16. Representation of Parties

For all purposes relevant to the Grant Agreement, the Government of the United States of America will be represented by the U. S. Ambassador to Host Country or USTDA and Grantee will be represented by the Managing Director and CEO. The parties hereto may, by written notice, designate additional representatives for all purposes under the Grant Agreement.

17. Addresses of Record for Parties

Any notice, request, document, or other communication submitted by either party to the other under the Grant Agreement shall be in writing or through a wire or electronic medium which produces a tangible record of the transmission, such as a telegram, cable or facsimile, and will be deemed duly given or sent when delivered to such party at the following:

To: Geothermal Development Company Limited
9th floor, Taj Towers, Upper Hill
PO Box 100746-00101
NAIROBI, KENYA

Phone: Tel No: , +254 719 715 778, +254 719 715 777
e-mail: info@gdc.go.ke

To: U.S. Trade and Development Agency
1000 Wilson Boulevard, Suite 1600
Arlington, Virginia 22209-3901
USA

Phone:	(703) 875-4357
Fax:	(703) 875-4009

All such communications shall be in English, unless the parties otherwise agree in writing. In addition, the Grantee shall provide the Commercial Section of the U.S. Embassy in Host Country with a copy of each communication sent to USTDA.

Any communication relating to this Grant Agreement shall include the following fiscal data:

Appropriation No.:	11 10/11 1001
Activity No.:	2010-11025A
Reservation No.:	2010110031
Grant No.:	GH2010110010

18. Termination Clause

Either party may terminate the Grant Agreement by giving the other party thirty (30) days advance written notice. The termination of the Grant Agreement will end any obligations of the parties to provide financial or other resources for the TA, except for payments which they are committed to make pursuant to noncancellable commitments entered into with third parties prior to the written notice of termination.

19. Non-waiver of Rights and Remedies

No delay in exercising any right or remedy accruing to either party in connection with the Grant Agreement shall be construed as a waiver of such right or remedy.

20. U.S. Technology and Equipment

By funding this TA, USTDA seeks to promote the project objectives of the Host Country through the use of U.S. technology, goods, and services. In recognition of this purpose, the Grantee agrees that it will allow U.S. suppliers to compete in the procurement of technology, goods and services needed for Project implementation.

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IN WITNESS WHEREOF, the Government of the United States of America and the Geothermal Development Company Limited each acting through its duly authorized representative, have caused this Agreement to be signed in the English language in their names and delivered as of the day and year written below. In the event that this Grant Agreement is signed in more than one language, the English language version shall govern.

For the Government of the United States of America	**For the Geothermal Development Company Limited**
By:	By:
Date: August 2, 2010	Date: August 2, 2010

Annex I -- Terms of Reference

Annex II -- USTDA Mandatory Clauses

Annex I

Terms of Reference

Background

Kenya has a history of utilizing its geothermal resources to provide electricity. Only recently, in light of drought conditions and a greater need for energy has the country decided to re-energize the exploitation of these resources in a coordinated effort of public-private sector development. The Geothermal Development Corporation ("Grantee") was created by the Government of Kenya (GOK) with the important responsibility of managing the Country's vast geothermal resources including the development, exploitation, and monitoring of these resources.

The Grantee's program is aimed at developing long-term, clean, lower cost baseload power for the country. As a fledgling organization, the Grantee is seeking assistance in building a properly structured organization including the development of its policies and procedures and preparing it for the overall implementation of its business plan.

Objectives of the Technical Assistance

The Grantee recognizes that as a newly formed organization, there is a need to build their capacity as they progress in their mission. This TA will provide the Grantee with the following:

- An investment model for meeting GDC's goal of 4,000 MW of new geothermal power production in the next twenty years
- Guidance on selecting strategic and financial private investors interested in the sector, including a sample RFP and evaluation criteria for future concessions
- A financial and economic model including a feed in tariff analysis
- A risk management plan
- Training workshops to enhance skills and knowledge in the areas covered by the TOR.

Terms of Reference

1. Kick-Off, Initial Work Plan and Review

a. The Contractor shall travel to Nairobi to meet with the Grantee and the Ministry of Energy, determine the resources and data available for the performance of the Terms of Reference ("TOR"), and secure as much information as available and agreed upon with the Grantee as necessary to start the work.

b. The Contractor shall review the information made available by the Grantee in order to become well-acquainted with the organization and the sector.

c. Within fourteen (14) days after the Kick-Off meetings, the Contractor shall provide, in an editable electronic format, an Inception Report detailing the proposed work plan responding to all areas of the TOR. The work plan shall show timelines and staff engagement leading to achievement of the entire TOR.

   Deliverable: The deliverable for Task 1 shall be an Inception Report describing the work performed under Task 1 and detailing the proposed work plan responding to all areas of the TOR.

2. Investment Model Development Assistance

The Contractor shall advise the Grantee on appropriate investment model to achieve the development strategy of realizing 4,000 Megawatts of energy ("MWe") of new geothermal energy development.

a. The Contractor shall evaluate proven investment models suitable for the development of the Kenyan geothermal energy potential, and make recommendations to the Grantee regarding their suitability for use in the Kenyan environment, elaborating on the basis for the recommendations. Following the evaluation, the Grantee and the Contractor shall agree upon a model or models for the Grantee to use going forward.
b. The Contractor shall advise the Grantee on the allocation of geothermal investment opportunities. It is anticipated that such a geothermal investment opportunity would be allocated in the context of policies and procedures that are clear, understandable and predictable, and would result in an investor's commitment to construct and operate a power plant (i) on a site identified by the Grantee; (ii) utilizing the geothermal resource made available by the Grantee and (iii) under appropriate contractual terms and conditions associated with such a commitment. The Contractor shall:
   i. Evaluate and recommend procedures for awarding geothermal investment opportunities for the development of power generation plants at the proven geothermal fields using the model(s) selected.
   ii. Prepare draft Terms of Reference for the allocation of the geothermal investment opportunities. The draft Terms of Reference shall include, but not be limited to, power plant site and size, investment conditions, technical and operational responsibilities, and other terms as agreed upon by the Contractor and the Grantee.
   iii. Identify key issues for the contract negotiation for the geothermal investment opportunities and steam sales contracts. The Contractor shall also advise the Grantee on issues that may arise during subsequent management of the contracts and provide recommendations to the Grantee on methods and procedures to manage these issues.
c. The Contractor shall prepare draft contracts including terms and conditions of contracts for:
   i. Geothermal resource sales (Steam Sales Contract)

ii. Development of geothermal resources which will be presented by the Grantee to prospective investors in geothermal investment opportunities.

d. The Contractor shall review the current concessions and recommend best practices for the Grantee in evaluating and managing these bids.

Deliverables: The deliverables for Task 2 shall be: 1) Report demonstrating the evaluation and recommendation of the Investment model(s); 2) Interim Report on Procedures to award the Investment(s), Terms of Reference, and key issues related to contract negotiations; 3) Draft contracts per Task 2.c; 4) Interim Report for Task 2.d.

3. Criteria for Selection of Private Investors

a. The Contractor shall advise the Grantee on the types of private investors that may have interest in investing in the development of power plants based on geothermal energy in Kenya, and shall identify a list of potential investors, including but not limited to:
   i. Strategic investors with relevant technical, operational, and ownership and investment experience (these include resource to power generation, or power from geothermal only)
   ii. Financial investors with interest in the sector and Kenya (or similar type of emerging market) including equity investors and project finance lenders

b. The Contractor shall advise the Grantee on the methodology by which such private investors decide to participate in such concessions and transactions, the key drivers, how best to market the opportunities, and define their specific roles in the transaction.

c. The Contractor shall evaluate and recommend bidding evaluation criteria to engage investors in the geothermal investment opportunities

d. The Contractor shall prepare a sample Request for Proposals (RFP) document for the right to implement the geothermal investment opportunities. The RFP document shall contain the information required for prospective investors to submit proposals for the geothermal investment opportunities. The RFP document shall reflect the Investment Model(s) developed under Task 2.

Deliverable: The deliverable for Task 3 shall be an interim report addressing the work completed under Task 3 including information regarding defining the private investors, the recommended evaluation criteria, and sample RFP documents.

4. Financial and Economic Modeling

The Contractor shall develop a financial and economic model for the Grantee's ten-year development plan. To accomplish this, the Contractor shall:

a. Develop and recommend a suitable geothermal steam Feed-In Tariff for Independent Power Producers (IPP), and analyze resulting electricity wholesale tariffs

b. Develop a suitable financial model able to consider various investment models for power generation plants. The financial model shall account for the following scenarios:
    i. Steam sales to IPPs (i.e. the IPP is responsible for electricity sales through a power purchase agreement (PPA))
    ii. Energy conversion model (i.e. the IPP is only responsible for energy conversion for a fee and the Grantee sells the electricity through a PPA)

c. Develop sensitivity analyses on:
    i. Power generation capital costs (per MW)
    ii. Cost of capital
    iii. Debt to equity ratio
    iv. Steam Feed-In Tariffs
    v. Power tariffs (using prevailing power purchasing structure from Kenya Power & Light Company as base case, but varying it according to potential feed-in tariffs)
    vi. Variable costs
    vii. Private developer financial benefits analysis (including development stage financing returns among other)

d. Utilizing assumptions on new energy investment opportunities, rate of new power output, and related cash inflows to the Grantee as provided by the Investment Model(s) as developed in Task 2, the Contractor shall develop the Grantee's Financial Model. The Financial Model shall incorporate:
    i. Existing financial statements
    ii. Capital costs related to drilling and exploitation of resource
    iii. Financial requirements for the Grantee during the course of the 10 year projections
    iv. Sensitivity analyses on the following:
        1. Rate of new power output (as determined by Investment award assumptions)
        2. Tariffs
        3. Revenue options for the Grantee from Investment holders
        4. Operational costs
        5. Investment plans
        6. Drilling programs
        7. Cost of funds and other relevant assumptions

Deliverables: The deliverables for Task 4 shall be a financial and economic model for the Grantee's ten-year plan in electronic format, analysis on a Feed-In Tariff, and an investment model or models in electronic format.

5. Risk Management

The Contractor shall conduct a Risk Assessment on the Grantee's ten-year development plan, considering technical, financial, commercial and regulatory risks.

a. The Contractor shall evaluate the existing regulatory framework for geothermal development in Kenya, identify any regulatory gaps to allow for the award of the recommended power generation investment opportunities, and identify any regulatory risks which could affect either the Grantee or prospective private investors.

b. The Contractor shall review the current commercial framework, royalties, licensing terms and conditions affecting Kenya's geothermal energy sector.

c. The Contractor shall identify technical risks relating to geothermal energy projects in general and in Kenya in particular.

d. The Contractor shall evaluate the relevant legal framework for local and international investors in relation to investing in geothermal power development projects, and identify any risks and or gaps.

e. The Contractor shall evaluate the investor financial return requirements and the resulting indicative power costs to the offtaker (as compared to other generation sources in Kenya), and identify potential financial risks to the Grantee and to the Investment holder due to a power cost range.

f. The Contractor shall suggest suitable mitigations for all identified risks.

g. The Contractor shall develop a risk management program addressing the identified risks.

Deliverables: The deliverables for Task 5 shall be a report on risk management addressing the findings of Task 5 as well as the recommended mitigations and risk management plan.

6. Training Workshops

During the course of the TA, the Contractor shall provide at least 20 days of training covering the following topic areas with a total of at least 20 participants receiving training over the course of the TA.

a. The Contractor shall transfer skills and knowledge through training sessions for the Grantee on the following subjects:
   i. Geothermal Regulatory Framework
   ii. Financial Modeling

iii. Bidding Process for Private Participation
iv. Dispute Resolution
v. Risk Management

b. Based upon an assessment of the Grantee's capacity in the areas covered in these Terms of Reference, the Contractor shall assess the requirements for capacity building, also taking into account training which could be provided by vendors through various procurements planned in the future. The Contractor shall propose training approaches and methods to undertake the training.

c. Throughout the course of the TA the Contractor shall provide opportunities for on-the-job training and provide an appraisal of Grantee personnel working with the Contractor.

d. The Contractor shall recommend a long-term training program schedule for the Grantee, estimate expected costs and consider through consultation with the Grantee the prospective budgets available to support the program.

Deliverable: The deliverable for Task 6 shall be a detailed training plan for future training and a report describing the content and results of the required training sessions conducted during the course of the TA.

7. Host Country Development Impact Assessment

The Contractor shall perform an analysis of host country development impacts in the areas of: Infrastructure, Human Capacity Building, Technology Transfer and Productivity Improvement and/or Market-Oriented Reform). These Development Impact factors are intended to provide the Project's decision-makers and interested parties with a broader view of the Project's potential effects on the Host Country.

The Contractor shall place specific focus on the immediate impact of the Project covered under the Study. The Contractor's shall consider and describe any additional developmental benefits that may result from the Project's implementation, including spin-off and demonstration effects. The contractor shall assess each of the following categories with respect to the Project's overall development impact:

Infrastructure: improvements in the physical, financial, and social infrastructure of Kenya.

Technology Transfer and Productivity Improvements: introduction of advanced technologies and improvement of processes that stimulate greater economic productivity.

*Human Capacity Buil*ding: new job opportunities, sustained employment, or advanced training to upgrade the capability of the workforce.

Market-Oriented Reforms: for example, increased transparency and private sector participation.

Other/Spin-Off Effects: any other developmental benefits derived from the Project including, for example, increased good governance or improved financial revenue flows to Kenya.

Deliverable: The deliverable for Task 7 shall be a Host Country Development Impact Assessment.

8. Preliminary Environmental Impact Assessment

The Contractor shall conduct a preliminary environmental impact assessment with reference to local requirements and those of multilateral lending agencies such as the World Bank. This preliminary environmental impact assessment shall identify negative impacts, if any, discuss the extent to which they can be mitigated, and develop plans for a full environmental impact assessment if and when the project moves forward to the implementation stage. This includes the identification of steps that will need to be undertaken by the Grantee subsequent to the TA's completion and prior to project implementation. The review shall also identify potential positive impacts.

Deliverable: The deliverable for Task 8 shall be preliminary environmental impact assessment.

9. U.S. Sources of Supply

The Contractor shall create a comprehensive and searchable list of potential U.S. sources of supply of geothermal energy equipment and services. The Contractor shall include the business name, point of contact, address, telephone, e-mail, and fax numbers for each identified source.

Deliverable: The deliverable for Task 9 shall be a list of potential U.S. sources of supply, which may be used in the development of Kenya's geothermal power sector.

10. Draft Final Report and Workshop

At the end of the Technical Assistance, the Contractor shall prepare and present a draft report, which will include the interim deliverables and other technical, economic and financial data developed in Tasks 1-7 above, as appropriate, and thereafter, upon consultation from GDC, the Contractor shall prepare a Final Report:

a. **Draft Report:** The Contractor shall provide 5 copies of the draft report to the Grantee. The Contractor shall also submit an electronic version of the draft report to the Grantee.

b. **Workshop Presentation**: The Contractor shall present its Draft Final Report, fourteen days after submission, in the form of a four day workshop to be held in Nairobi. The objective of the workshop will be to discuss the report with the client's key personnel as a way of feedback and knowledge transfer to the client's staff in addition to the training described earlier in this TOR. The Contractor shall prepare a visual presentation to aid in the discussion addressing all aspects of the scope of work.

   Deliverables: The deliverables for Task 10 shall be a description of the outcomes of the workshop and all of the materials provided at the workshop including a copy of the visual presentation presented at the workshop.

11. Final Report

The Contractor shall prepare and deliver to the Grantee and USTDA a substantive and comprehensive final report of all work performed under these Terms of Reference ("Final Report"). The Final Report shall be organized according to the above tasks, and shall include all deliverables, documents, training, workshop materials and presentation materials that have been provided to the Grantee. The Final Report shall be prepared in accordance with Clause I of Annex II of the Grant Agreement.

Notes:

(1) The Contractor is responsible for compliance with U.S. export licensing requirements, if applicable, in the performance of the Terms of Reference.

(2) The Contractor and the Grantee shall be careful to ensure that the public version of the Final Report contains no security or confidential information.

(3) The Grantee and USTDA shall have an irrevocable, worldwide, royalty-free, non-exclusive right to use and distribute the Final Report and all work product that is developed under these Terms of Reference.

Annex II

USTDA Mandatory Contract Clauses

A. USTDA Mandatory Clauses Controlling

The parties to this contract acknowledge that this contract is funded in whole or in part by the U.S. Trade and Development Agency ("USTDA") under the Grant Agreement between the Government of the United States of America acting through USTDA and the Geothermal Development Company Limited, a Kenyan Company ("Client"), dated ___________ ("Grant Agreement"). The Client has selected _______________ ("Contractor") to perform the technical assistance ("TA") for the Geothermal Development Company Capacity Building Project ("Project") in Kenya ("Host Country"). Notwithstanding any other provisions of this contract, the following USTDA mandatory contract clauses shall govern. All subcontracts entered into by Contractor funded or partially funded with USTDA Grant funds shall include these USTDA mandatory contract clauses, except for clauses B(1), G, H, I, and J. In addition, in the event of any inconsistency between the Grant Agreement and any contract or subcontract thereunder, the Grant Agreement shall be controlling.

B. USTDA as Financier

(1) USTDA Approval of Contract

All contracts funded under the Grant Agreement, and any amendments thereto, including assignments and changes in the Terms of Reference, must be approved by USTDA in writing in order to be effective with respect to the expenditure of USTDA Grant funds. USTDA will not authorize the disbursement of USTDA Grant funds until the contract has been formally approved by USTDA or until the contract conforms to modifications required by USTDA during the contract review process.

(2) USTDA Not a Party to the Contract

It is understood by the parties that USTDA has reserved certain rights such as, but not limited to, the right to approve the terms of this contract and amendments thereto, including assignments, the selection of all contractors, the Terms of Reference, the Final Report, and any and all documents related to any contract funded under the Grant Agreement. The parties hereto further understand and agree that USTDA, in reserving any or all of the foregoing approval rights, has acted solely as a financing entity to assure the proper use of United States Government funds, and that any decision by USTDA to exercise or refrain from exercising these approval rights shall be made as a financier in the course of financing the TA and shall not be construed as making USTDA a party to the contract. The parties hereto understand and agree that USTDA may, from time to time, exercise the foregoing approval rights, or discuss matters related to these rights and the Project with the parties to the contract or any subcontract, jointly or separately, without thereby incurring any responsibility or liability to such parties. Any approval or failure to approve by USTDA shall not bar the Client or USTDA from asserting any right they might have against the Contractor, or relieve the Contractor of any liability which the Contractor might otherwise have to the Client or USTDA.

C. Nationality, Source and Origin

Except as USTDA may otherwise agree, the following provisions shall govern the delivery of goods and services funded by USTDA under the Grant Agreement: (a) for professional services, the Contractor must be either a U.S. firm or U.S. individual; (b) the Contractor may use U.S. subcontractors without limitation, but the use of subcontractors from Host Country may not exceed twenty percent (20%) of the USTDA Grant amount and may only be used for specific services from the Terms of Reference identified in the subcontract; (c) employees of U.S. Contractor or U.S. subcontractor firms responsible for professional services shall be U.S. citizens or non-U.S. citizens lawfully admitted for permanent residence in the U.S.; (d) goods purchased for performance of the TA and associated delivery services (e.g., international transportation and insurance) must have their nationality, source and origin in the United States; and (e) goods and services incidental to TA support (e.g., local lodging, food, and transportation) in Host Country are not subject to the above restrictions. USTDA will make available further details concerning these provisions upon request.

D. Recordkeeping and Audit

The Contractor and subcontractors funded under the Grant Agreement shall maintain, in accordance with generally accepted accounting procedures, books, records, and other documents, sufficient to reflect properly all transactions under or in connection with the contract. These books, records, and other documents shall clearly identify and track the use and expenditure of USTDA funds, separately from other funding sources. Such books, records, and documents shall be maintained during the contract term and for a period of three (3) years after final disbursement by USTDA. The Contractor and subcontractors shall afford USTDA, or its authorized representatives, the opportunity at reasonable times for inspection and audit of such books, records, and other documentation.

E. U.S. Carriers

(1) Air

Transportation by air of persons or property funded under the Grant Agreement shall be on U.S. flag carriers in accordance with the Fly America Act, 49 U.S.C. 40118, to the extent service by such carriers is available, as provided under applicable U.S. Government regulations.

(2) Marine

Transportation by sea of property funded under the Grant Agreement shall be on U.S. carriers in accordance with U.S. cargo preference law.

F. Workman's Compensation Insurance

The Contractor shall provide adequate Workman's Compensation Insurance coverage for work performed under this Contract.

G. Reporting Requirements

The Contractor shall advise USTDA by letter as to the status of the Project on March 1st annually for a period of two (2) years after completion of the TA. In addition, if at any time the Contractor receives follow-on work from the Client, the Contractor shall so notify USTDA and designate the Contractor's contact point including name, telephone, and fax number. Since this information may be made publicly available by USTDA, any information which is confidential shall be designated as such by the Contractor and provided separately to USTDA. USTDA will maintain the confidentiality of such information in accordance with applicable law.

H. Disbursement Procedures

(1) USTDA Approval of Contract

Disbursement of Grant funds will be made only after USTDA approval of this contract. To make this review in a timely fashion, USTDA must receive from either the Client or the Contractor a photocopy of an English language version of a signed contract or a final negotiated draft version to the attention of the General Counsel's office at USTDA's address listed in Clause M below.

(2) Payment Schedule Requirements

A payment schedule for disbursement of Grant funds to the Contractor shall be included in this Contract. Such payment schedule must conform to the following USTDA requirements: (1) up to twenty percent (20%) of the total USTDA Grant amount may be used as a mobilization payment; (2) all other payments, with the exception of the final payment, shall be based upon contract performance milestones; and (3) the final payment may be no less than fifteen percent (15%) of the total USTDA Grant amount, payable upon receipt by USTDA of an approved Final Report in accordance with the specifications and quantities set forth in Clause I below. Invoicing procedures for all payments are described below.

(3) Contractor Invoice Requirements

USTDA will make all disbursements of USTDA Grant funds directly to the Contractor. The Contractor must provide USTDA with an ACH Vendor Enrollment Form (available from USTDA) with the first invoice. The Client shall request disbursement of funds by USTDA to the Contractor for performance of the contract by submitting the following to USTDA:

(a) Contractor's Invoice

The Contractor's invoice shall include reference to an item listed in the Contract payment schedule, the requested payment amount, and an appropriate certification by the Contractor, as follows:

(i) For a mobilization payment (if any):

"As a condition for this mobilization payment, the Contractor certifies that it will perform all work in accordance with the terms of its Contract with the Client. To the extent that the Contractor does not comply with the terms and conditions of the Contract, including the USTDA mandatory provisions contained therein, it will, upon USTDA's request, make an appropriate refund to USTDA. "

(ii) For contract performance milestone payments:

"The Contractor has performed the work described in this invoice in accordance with the terms of its contract with the Client and is entitled to payment thereunder. To the extent the Contractor has not complied with the terms and conditions of the Contract, including the USTDA mandatory provisions contained therein, it will, upon USTDA's request, make an appropriate refund to USTDA."

(iii) For final payment:

"The Contractor has performed the work described in this invoice in accordance with the terms of its contract with the Client and is entitled to payment thereunder. Specifically, the Contractor has submitted the Final Report to the Client, as required by the Contract, and received the Client's approval of the Final Report. To the extent the Contractor has not complied with the terms and conditions of the Contract, including the USTDA mandatory provisions contained therein, it will, upon USTDA's request, make an appropriate refund to USTDA."

(b) Client's Approval of the Contractor's Invoice

(i) The invoice for a mobilization payment must be approved in writing by the Client.

(ii) For contract performance milestone payments, the following certification by the Client must be provided on the invoice or separately:

"The services for which disbursement is requested by the Contractor have been performed satisfactorily, in accordance with applicable Contract provisions and the terms and conditions of the USTDA Grant Agreement."

(iii) For final payment, the following certification by the Client must be provided on the invoice or separately:

"The services for which disbursement is requested by the Contractor have been performed satisfactorily, in accordance with applicable Contract provisions and terms and conditions of the USTDA Grant Agreement. The Final Report submitted by the Contractor has been reviewed and approved by the Client. "

(c) USTDA Address for Disbursement Requests

Requests for disbursement shall be submitted by courier or mail to the attention of the Finance Department at USTDA's address listed in Clause M below.

(4) Termination

In the event that the Contract is terminated prior to completion, the Contractor will be eligible, subject to USTDA approval, for reasonable and documented costs which have been incurred in performing the Terms of Reference prior to termination, as well as reasonable wind down expenses. Reimbursement for such costs shall not exceed the total amount of undisbursed Grant funds. Likewise, in the event of such termination, USTDA is entitled to receive from the Contractor all USTDA Grant funds previously disbursed to the Contractor (including but not limited to mobilization payments) which exceed the reasonable and documented costs incurred in performing the Terms of Reference prior to termination.

I. USTDA Final Report

(1) Definition

"Final Report" shall mean the Final Report described in the attached Annex I Terms of Reference or, if no such "Final Report" is described therein, "Final Report" shall mean a substantive and comprehensive report of work performed in accordance with the attached Annex I Terms of Reference, including any documents delivered to the Client.

(2) Final Report Submission Requirements

The Contractor shall provide the following to USTDA:

(a) One (1) complete version of the Final Report for USTDA's records. This version shall have been approved by the Client in writing and must be in the English language. It is the responsibility of the Contractor to ensure that confidential information, if any, contained in this version be clearly marked. USTDA will maintain the confidentiality of such information in accordance with applicable law.

and

(b) One (1) copy of the Final Report suitable for public distribution ("Public Version"). The Public Version shall have been approved by the Client in writing and must be in the English language. As this version will be available for public distribution, it must not contain any confidential information. If the report in (a) above contains no confidential information, it may be used as the Public Version. In any event, the Public Version must be informative and contain sufficient Project detail to be useful to prospective equipment and service providers.

and

(c) Two (2) CD-ROMs, each containing a complete copy of the Public Version of the Final Report. The electronic files on the CD-ROMs shall be submitted in a commonly accessible read-only format. As these CD-ROMs will be available for public distribution, they must not contain any confidential information. It is the responsibility of the Contractor to ensure that no confidential information is contained on the CD-ROMs.

The Contractor shall also provide one (1) copy of the Public Version of the Final Report to the Foreign Commercial Service Officer or the Economic Section of the U.S. Embassy in Host Country for informational purposes.

(3) Final Report Presentation

All Final Reports submitted to USTDA must be paginated and include the following:

(a) The front cover of every Final Report shall contain the name of the Client, the name of the Contractor who prepared the report, a report title, USTDA's logo, USTDA's mailing and delivery addresses. If the complete version of the Final Report contains confidential information, the Contractor shall be responsible for labeling the front cover of that version of the Final Report with the term "Confidential Version." The Contractor shall be responsible for labeling the front cover of the Public Version of the Final Report with the term "Public Version." The front cover of every Final Report shall also contain the following disclaimer:

"This report was funded by the U.S. Trade and Development Agency (USTDA), an agency of the U. S. Government. The opinions, findings, conclusions or recommendations expressed in this document are those of the author(s) and do not necessarily represent the official position or policies of

USTDA. USTDA makes no representation about, nor does it accept responsibility for, the accuracy or completeness of the information contained in this report."

(b) The inside front cover of every Final Report shall contain USTDA's logo, USTDA's mailing and delivery addresses, and USTDA's mission statement. Camera-ready copy of USTDA Final Report specifications will be available from USTDA upon request.

(c) The Contractor shall affix to the front of the CD-ROM a label identifying the Host Country, USTDA Activity Number, the name of the Client, the name of the Contractor who prepared the report, a report title, and the following language:

"The Contractor certifies that this CD-ROM contains the Public Version of the Final Report and that all contents are suitable for public distribution."

(d) The Contractor and any subcontractors that perform work pursuant to the Grant Agreement must be clearly identified in the Final Report. Business name, point of contact, address, telephone and fax numbers shall be included for Contractor and each subcontractor.

(e) The Final Report, while aiming at optimum specifications and characteristics for the Project, shall identify the availability of prospective U.S. sources of supply. Business name, point of contact, address, telephone and fax numbers shall be included for each commercial source.

(f) The Final Report shall be accompanied by a letter or other notation by the Client which states that the Client approves the Final Report. A certification by the Client to this effect provided on or with the invoice for final payment will meet this requirement.

J. Modifications

All changes, modifications, assignments or amendments to this contract, including the appendices, shall be made only by written agreement by the parties hereto, subject to written USTDA approval.

K. TA Schedule

(1) TA Completion Date

The completion date for the TA, which is September 30, 2012 is the date by which the parties estimate that the TA will have been completed.

(2) Time Limitation on Disbursement of USTDA Grant Funds

Except as USTDA may otherwise agree, (a) no USTDA funds may be disbursed under this contract for goods and services which are provided prior to the Effective Date of the Grant Agreement; and (b) all funds made available under the Grant Agreement must be disbursed within four (4) years from the Effective Date of the Grant Agreement.

L. Business Practices

The Contractor agrees not to pay, promise to pay, or authorize the payment of any money or anything of value, directly or indirectly, to any person (whether a governmental official or private individual) for the purpose of illegally or improperly inducing anyone to take any action favorable to any party in connection with the TA. The Client agrees not to receive any such payment. The Contractor and the Client agree that each will require that any agent or representative hired to represent them in connection with the TA will comply with this paragraph and all laws which apply to activities and obligations of each party under this Contract, including but not limited to those laws and obligations dealing with improper payments as described above.

M. USTDA Address and Fiscal Data

Any communication with USTDA regarding this Contract shall be sent to the following address and include the fiscal data listed below:

U.S. Trade and Development Agency
1000 Wilson Boulevard, Suite 1600
Arlington, Virginia 22209-3901
USA

Phone: (703) 875-4357
Fax: (703) 875-4009

Fiscal Data:

Appropriation No.:	11 10/11 1001
Activity No.:	2010-11025A
Reservation No.:	2010110031
Grant No.:	GH2010110010

N. Definitions

All capitalized terms not otherwise defined herein shall have the meaning set forth in the Grant Agreement.

O. Taxes

USTDA funds provided under the Grant Agreement shall not be used to pay any taxes, tariffs, duties, fees or other levies imposed under laws in effect in Host Country. Neither the Client nor the Contractor will seek reimbursement from USTDA for such taxes, tariffs, duties, fees or other levies.

ANNEX 5

Annex I

Terms of Reference

Background

Kenya has a history of utilizing its geothermal resources to provide electricity. Only recently, in light of drought conditions and a greater need for energy has the country decided to re-energize the exploitation of these resources in a coordinated effort of public-private sector development. The Geothermal Development Corporation ("Grantee") was created by the Government of Kenya (GOK) with the important responsibility of managing the Country's vast geothermal resources including the development, exploitation, and monitoring of these resources.

The Grantee's program is aimed at developing long-term, clean, lower cost baseload power for the country. As a fledgling organization, the Grantee is seeking assistance in building a properly structured organization including the development of its policies and procedures and preparing it for the overall implementation of its business plan.

Objectives of the Technical Assistance

The Grantee recognizes that as a newly formed organization, there is a need to build their capacity as they progress in their mission. This TA will provide the Grantee with the following:

- An investment model for meeting GDC's goal of 4,000 MW of new geothermal power production in the next twenty years
- Guidance on selecting strategic and financial private investors interested in the sector, including a sample RFP and evaluation criteria for future concessions
- A financial and economic model including a feed in tariff analysis
- A risk management plan
- Training workshops to enhance skills and knowledge in the areas covered by the TOR.

Terms of Reference

1. Kick-Off, Initial Work Plan and Review

a. The Contractor shall travel to Nairobi to meet with the Grantee and the Ministry of Energy, determine the resources and data available for the performance of the Terms of Reference ("TOR"), and secure as much information as available and agreed upon with the Grantee as necessary to start the work.
b. The Contractor shall review the information made available by the Grantee in order to become well-acquainted with the organization and the sector.

c. Within fourteen (14) days after the Kick-Off meetings, the Contractor shall provide, in an editable electronic format, an Inception Report detailing the proposed work plan responding to all areas of the TOR. The work plan shall show timelines and staff engagement leading to achievement of the entire TOR.

   Deliverable: The deliverable for Task 1 shall be an Inception Report describing the work performed under Task 1 and detailing the proposed work plan responding to all areas of the TOR.

2. Investment Model Development Assistance

The Contractor shall advise the Grantee on appropriate investment model to achieve the development strategy of realizing 4,000 Megawatts of energy ("MWe") of new geothermal energy development.

a. The Contractor shall evaluate proven investment models suitable for the development of the Kenyan geothermal energy potential, and make recommendations to the Grantee regarding their suitability for use in the Kenyan environment, elaborating on the basis for the recommendations. Following the evaluation, the Grantee and the Contractor shall agree upon a model or models for the Grantee to use going forward.
b. The Contractor shall advise the Grantee on the allocation of geothermal investment opportunities. It is anticipated that such a geothermal investment opportunity would be allocated in the context of policies and procedures that are clear, understandable and predictable, and would result in an investor's commitment to construct and operate a power plant (i) on a site identified by the Grantee; (ii) utilizing the geothermal resource made available by the Grantee and (iii) under appropriate contractual terms and conditions associated with such a commitment. The Contractor shall:
   i. Evaluate and recommend procedures for awarding geothermal investment opportunities for the development of power generation plants at the proven geothermal fields using the model(s) selected.
   ii. Prepare draft Terms of Reference for the allocation of the geothermal investment opportunities. The draft Terms of Reference shall include, but not be limited to, power plant site and size, investment conditions, technical and operational responsibilities, and other terms as agreed upon by the Contractor and the Grantee.
   iii. Identify key issues for the contract negotiation for the geothermal investment opportunities and steam sales contracts. The Contractor shall also advise the Grantee on issues that may arise during subsequent management of the contracts and provide recommendations to the Grantee on methods and procedures to manage these issues.
c. The Contractor shall prepare draft contracts including terms and conditions of contracts for:
   i. Geothermal resource sales (Steam Sales Contract)

ii. Development of geothermal resources which will be presented by the Grantee to prospective investors in geothermal investment opportunities.

d. The Contractor shall review the current concessions and recommend best practices for the Grantee in evaluating and managing these bids.

Deliverables: The deliverables for Task 2 shall be: 1) Report demonstrating the evaluation and recommendation of the Investment model(s); 2) Interim Report on Procedures to award the Investment(s), Terms of Reference, and key issues related to contract negotiations; 3) Draft contracts per Task 2.c; 4) Interim Report for Task 2.d.

3. Criteria for Selection of Private Investors

a. The Contractor shall advise the Grantee on the types of private investors that may have interest in investing in the development of power plants based on geothermal energy in Kenya, and shall identify a list of potential investors, including but not limited to:
   i. Strategic investors with relevant technical, operational, and ownership and investment experience (these include resource to power generation, or power from geothermal only)
   ii. Financial investors with interest in the sector and Kenya (or similar type of emerging market) including equity investors and project finance lenders

b. The Contractor shall advise the Grantee on the methodology by which such private investors decide to participate in such concessions and transactions, the key drivers, how best to market the opportunities, and define their specific roles in the transaction.

c. The Contractor shall evaluate and recommend bidding evaluation criteria to engage investors in the geothermal investment opportunities

d. The Contractor shall prepare a sample Request for Proposals (RFP) document for the right to implement the geothermal investment opportunities. The RFP document shall contain the information required for prospective investors to submit proposals for the geothermal investment opportunities. The RFP document shall reflect the Investment Model(s) developed under Task 2.

Deliverable: The deliverable for Task 3 shall be an interim report addressing the work completed under Task 3 including information regarding defining the private investors, the recommended evaluation criteria, and sample RFP documents.

4. Financial and Economic Modeling

The Contractor shall develop a financial and economic model for the Grantee's ten-year development plan. To accomplish this, the Contractor shall:

a. Develop and recommend a suitable geothermal steam Feed-In Tariff for Independent Power Producers (IPP), and analyze resulting electricity wholesale tariffs

b. Develop a suitable financial model able to consider various investment models for power generation plants. The financial model shall account for the following scenarios:
    i. Steam sales to IPPs (i.e. the IPP is responsible for electricity sales through a power purchase agreement (PPA))
    ii. Energy conversion model (i.e. the IPP is only responsible for energy conversion for a fee and the Grantee sells the electricity through a PPA)

c. Develop sensitivity analyses on:
    i. Power generation capital costs (per MW)
    ii. Cost of capital
    iii. Debt to equity ratio
    iv. Steam Feed-In Tariffs
    v. Power tariffs (using prevailing power purchasing structure from Kenya Power & Light Company as base case, but varying it according to potential feed-in tariffs)
    vi. Variable costs
    vii. Private developer financial benefits analysis (including development stage financing returns among other)

d. Utilizing assumptions on new energy investment opportunities, rate of new power output, and related cash inflows to the Grantee as provided by the Investment Model(s) as developed in Task 2, the Contractor shall develop the Grantee's Financial Model. The Financial Model shall incorporate:
    i. Existing financial statements
    ii. Capital costs related to drilling and exploitation of resource
    iii. Financial requirements for the Grantee during the course of the 10 year projections
    iv. Sensitivity analyses on the following:
        1. Rate of new power output (as determined by Investment award assumptions)
        2. Tariffs
        3. Revenue options for the Grantee from Investment holders
        4. Operational costs
        5. Investment plans
        6. Drilling programs
        7. Cost of funds and other relevant assumptions

Deliverables: The deliverables for Task 4 shall be a financial and economic model for the Grantee's ten-year plan in electronic format, analysis on a Feed-In Tariff, and an investment model or models in electronic format.

5. Risk Management

The Contractor shall conduct a Risk Assessment on the Grantee's ten-year development plan, considering technical, financial, commercial and regulatory risks.

a. The Contractor shall evaluate the existing regulatory framework for geothermal development in Kenya, identify any regulatory gaps to allow for the award of the recommended power generation investment opportunities, and identify any regulatory risks which could affect either the Grantee or prospective private investors.

b. The Contractor shall review the current commercial framework, royalties, licensing terms and conditions affecting Kenya's geothermal energy sector.

c. The Contractor shall identify technical risks relating to geothermal energy projects in general and in Kenya in particular.

d. The Contractor shall evaluate the relevant legal framework for local and international investors in relation to investing in geothermal power development projects, and identify any risks and or gaps.

e. The Contractor shall evaluate the investor financial return requirements and the resulting indicative power costs to the offtaker (as compared to other generation sources in Kenya), and identify potential financial risks to the Grantee and to the Investment holder due to a power cost range.

f. The Contractor shall suggest suitable mitigations for all identified risks.

g. The Contractor shall develop a risk management program addressing the identified risks.

Deliverables: The deliverables for Task 5 shall be a report on risk management addressing the findings of Task 5 as well as the recommended mitigations and risk management plan.

6. Training Workshops

During the course of the TA, the Contractor shall provide at least 20 days of training covering the following topic areas with a total of at least 20 participants receiving training over the course of the TA.

a. The Contractor shall transfer skills and knowledge through training sessions for the Grantee on the following subjects:
   i. Geothermal Regulatory Framework
   ii. Financial Modeling

iii. Bidding Process for Private Participation
iv. Dispute Resolution
v. Risk Management

b. Based upon an assessment of the Grantee's capacity in the areas covered in these Terms of Reference, the Contractor shall assess the requirements for capacity building, also taking into account training which could be provided by vendors through various procurements planned in the future. The Contractor shall propose training approaches and methods to undertake the training.

c. Throughout the course of the TA the Contractor shall provide opportunities for on-the-job training and provide an appraisal of Grantee personnel working with the Contractor.

d. The Contractor shall recommend a long-term training program schedule for the Grantee, estimate expected costs and consider through consultation with the Grantee the prospective budgets available to support the program.

Deliverable: The deliverable for Task 6 shall be a detailed training plan for future training and a report describing the content and results of the required training sessions conducted during the course of the TA.

7. Host Country Development Impact Assessment

The Contractor shall perform an analysis of host country development impacts in the areas of: Infrastructure, Human Capacity Building, Technology Transfer and Productivity Improvement and/or Market-Oriented Reform). These Development Impact factors are intended to provide the Project's decision-makers and interested parties with a broader view of the Project's potential effects on the Host Country.

The Contractor shall place specific focus on the immediate impact of the Project covered under the Study. The Contractor's shall consider and describe any additional developmental benefits that may result from the Project's implementation, including spin-off and demonstration effects. The contractor shall assess each of the following categories with respect to the Project's overall development impact:

Infrastructure: improvements in the physical, financial, and social infrastructure of Kenya.

Technology Transfer and Productivity Improvements: introduction of advanced technologies and improvement of processes that stimulate greater economic productivity.

*Human Capacity Buil*ding: new job opportunities, sustained employment, or advanced training to upgrade the capability of the workforce.

Market-Oriented Reforms: for example, increased transparency and private sector participation.

Other/Spin-Off Effects: any other developmental benefits derived from the Project including, for example, increased good governance or improved financial revenue flows to Kenya.

Deliverable: The deliverable for Task 7 shall be a Host Country Development Impact Assessment.

8. Preliminary Environmental Impact Assessment

The Contractor shall conduct a preliminary environmental impact assessment with reference to local requirements and those of multilateral lending agencies such as the World Bank. This preliminary environmental impact assessment shall identify negative impacts, if any, discuss the extent to which they can be mitigated, and develop plans for a full environmental impact assessment if and when the project moves forward to the implementation stage. This includes the identification of steps that will need to be undertaken by the Grantee subsequent to the TA's completion and prior to project implementation. The review shall also identify potential positive impacts.

Deliverable: The deliverable for Task 8 shall be preliminary environmental impact assessment.

9. U.S. Sources of Supply

The Contractor shall create a comprehensive and searchable list of potential U.S. sources of supply of geothermal energy equipment and services. The Contractor shall include the business name, point of contact, address, telephone, e-mail, and fax numbers for each identified source.

Deliverable: The deliverable for Task 9 shall be a list of potential U.S. sources of supply, which may be used in the development of Kenya's geothermal power sector.

10. Draft Final Report and Workshop

At the end of the Technical Assistance, the Contractor shall prepare and present a draft report, which will include the interim deliverables and other technical, economic and financial data developed in Tasks 1-7 above, as appropriate, and thereafter, upon consultation from GDC, the Contractor shall prepare a Final Report:

a. **Draft Report:** The Contractor shall provide 5 copies of the draft report to the Grantee. The Contractor shall also submit an electronic version of the draft report to the Grantee.

b. **Workshop Presentation**: The Contractor shall present its Draft Final Report, fourteen days after submission, in the form of a four day workshop to be held in Nairobi. The objective of the workshop will be to discuss the report with the client's key personnel as a way of feedback and knowledge transfer to the client's staff in addition to the training described earlier in this TOR. The Contractor shall prepare a visual presentation to aid in the discussion addressing all aspects of the scope of work.

   Deliverables: The deliverables for Task 10 shall be a description of the outcomes of the workshop and all of the materials provided at the workshop including a copy of the visual presentation presented at the workshop.

11. Final Report

The Contractor shall prepare and deliver to the Grantee and USTDA a substantive and comprehensive final report of all work performed under these Terms of Reference ("Final Report"). The Final Report shall be organized according to the above tasks, and shall include all deliverables, documents, training, workshop materials and presentation materials that have been provided to the Grantee. The Final Report shall be prepared in accordance with Clause I of Annex II of the Grant Agreement.

Notes:

(1) The Contractor is responsible for compliance with U.S. export licensing requirements, if applicable, in the performance of the Terms of Reference.

(2) The Contractor and the Grantee shall be careful to ensure that the public version of the Final Report contains no security or confidential information.

(3) The Grantee and USTDA shall have an irrevocable, worldwide, royalty-free, non-exclusive right to use and distribute the Final Report and all work product that is developed under these Terms of Reference.

ANNEX 6

ANNEX 6

COMPANY INFORMATION

A. Company Profile

Provide the information listed below relative to the Offeror's firm. If the Offeror is proposing to subcontract some of the proposed work to another firm(s), the information requested in sections E and F below must be provided for each subcontractor.

1. Name of firm and business address (street address only), including telephone and fax numbers:

2. Year established (include predecessor companies and year(s) established, if appropriate).

3. Type of ownership (e.g. public, private or closely held).

4. If private or closely held company, provide list of shareholders and the percentage of their ownership.

5. List of directors and principal officers (President, Chief Executive Officer, Vice-President(s), Secretary and Treasurer; provide full names including first, middle and last). Please place an asterisk (*) next to the names of those principal officers who will be involved in the Feasibility Study.

6. If Offeror is a subsidiary, indicate if Offeror is a wholly-owned or partially-owned subsidiary. Provide the information requested in items 1 through 5 above for the Offeror's parent(s).

7. Project Manager's name, address, telephone number, e-mail address and fax number .

B. Offeror's Authorized Negotiator

Provide name, title, address, telephone number, e-mail address and fax number of the Offeror's authorized negotiator. The person cited shall be empowered to make binding commitments for the Offeror and its subcontractors, if any.

C. Negotiation Prerequisites

1. Discuss any current or anticipated commitments which may impact the ability of the Offeror or its subcontractors to complete the Feasibility Study as proposed and reflect such impact within the project schedule.

2. Identify any specific information which is needed from the Grantee before commencing contract negotiations.

D. Offeror's Representations

Please provide exceptions and/or explanations in the event that any of the following representations cannot be made:

1. Offeror is a corporation *[insert applicable type of entity if not a corporation]* duly organized, validly existing and in good standing under the laws of the State of ______________. The Offeror has all the requisite corporate power and authority to conduct its business as presently conducted, to submit this proposal, and if selected,

to execute and deliver a contract to the Grantee for the performance of the Feasibility Study. The Offeror is not debarred, suspended, or to the best of its knowledge or belief, proposed for debarment, or ineligible for the award of contracts by any federal or state governmental agency or authority.

2. The Offeror has included, with this proposal, a certified copy of its Articles of Incorporation, and a certificate of good standing issued within one month of the date of its proposal by the State of ___________. The Offeror commits to notify USTDA and the Grantee if they become aware of any change in their status in the state in which they are incorporated. USTDA retains the right to request an updated certificate of good standing.

3. Neither the Offeror nor any of its principal officers have, within the three-year period preceding this RFP, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a federal, state or local government contract or subcontract; violation of federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, violating federal or state criminal tax laws, or receiving stolen property.

4. Neither the Offeror, nor any of its principal officers, is presently indicted for, or otherwise criminally or civilly charged with, commission of any of the offenses enumerated in paragraph 3 above.

5. There are no federal or state tax liens pending against the assets, property or business of the Offeror. The Offeror, has not, within the three-year period preceding this RFP, been notified of any delinquent federal or state taxes in an amount that exceeds $3,000 for which the liability remains unsatisfied. Taxes are considered delinquent if (a) the tax liability has been fully determined, with no pending administrative or judicial appeals; and (b) a taxpayer has failed to pay the tax liability when full payment is due and required.

6. The Offeror has not commenced a voluntary case or other proceeding seeking liquidation, reorganization or other relief with respect to itself or its debts under any bankruptcy, insolvency or other similar law. The Offeror has not had filed against it an involuntary petition under any bankruptcy, insolvency or similar law.

The selected Offeror shall notify the Grantee and USTDA if any of the representations included in its proposal are no longer true and correct at the time of its entry into a contract with the Grantee.

Signed: ___________________________
(Authorized Representative)

Print Name: ________________________

Title: ______________________________

Date: ______________________________

E. Subcontractor Profile

1. Name of firm and business address (street address only), including telephone and fax numbers.

2. Year established (include predecessor companies and year(s) established, if appropriate).

F. Subcontractor's Representations

If any of the following representations cannot be made, or if there are exceptions, the subcontractor must provide an explanation.

1. Subcontractor is a corporation *[insert applicable type of entity if not a corporation]* duly organized, validly existing and in good standing under the laws of the State of ______________. The subcontractor has all the requisite corporate power and authority to conduct its business as presently conducted, to participate in this proposal, and if the Offeror is selected, to execute and deliver a subcontract to the Offeror for the performance of the Feasibility Study and to perform the Feasibility Study. The subcontractor is not debarred, suspended, or to the best of its knowledge or belief, proposed for debarment or ineligible for the award of contracts by any federal or state governmental agency or authority.

2. Neither the subcontractor nor any of its principal officers have, within the three-year period preceding this RFP, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a federal, state or local government contract or subcontract; violation of federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, violating federal or state criminal tax laws, or receiving stolen property.

3. Neither the subcontractor, nor any of its principal officers, is presently indicted for, or otherwise criminally or civilly charged with, commission of any of the offenses enumerated in paragraph 2 above.

4. There are no federal or state tax liens pending against the assets, property or business of the subcontractor. The subcontractor, has not, within the three-year period preceding this RFP, been notified of any delinquent federal or state taxes in an amount that exceeds $3,000 for which the liability remains unsatisfied. Taxes are considered delinquent if (a) the tax liability has been fully determined, with no pending administrative or judicial appeals; and (b) a taxpayer has failed to pay the tax liability when full payment is due and required.

5. The subcontractor has not commenced a voluntary case or other proceeding seeking liquidation, reorganization or other relief with respect to itself or its debts under any bankruptcy, insolvency or other similar law. The subcontractor has not had filed against it an involuntary petition under any bankruptcy, insolvency or similar law.

The selected subcontractor shall notify the Offeror, Grantee and USTDA if any of the representations included in this proposal are no longer true and correct at the time of the Offeror's entry into a contract with the Grantee.

Signed: ________________________
(Authorized Representative)

Print Name: ____________________

Title: __________________________

Date: __________________________