GEOTHERMAL PROJECT

Tender for Conducting Environmental Impact Assessment for Geothermal Exploration Drilling of Third Well

August 2015
August 17th 2015

Dear Sir/Madam,

Re: Tender for Conducting Environmental Impact Assessment for Geothermal Exploration Drilling of Third Well

You are invited to submit a tender for the above captioned project. Included are the tender documents consisting of:

1. Instruction to Tenderers
2. Terms of Reference
3. Form of Tender
4. Form of Agreement
5. Environmental Impact Assessment Terms of Reference
6. Tender Evaluation Criteria
7. Anti-Collusion Statement

Please return a complete document of the priced and signed Form of Tender, Signed Anti-Collusion Statement and a copy of your Tax Compliance (If Locally based). These should be placed in an inner envelope and addressed to The Chairman, Public Procurement Board, Ministry of Finance and Economic Management, Brades, MSR1110, Montserrat. The name of the project should also be written on this inner envelope and should read, “Tender for Conducting Environmental Impact Assessment for Geothermal Exploration Drilling of Third Well”. The name of the tenderer should also be written on the inner envelope.

This envelope should be placed inside an outer envelope addressed to The Chairman, Public Procurement Board, Ministry of Finance and Economic Management, Brades, MSR1110, Montserrat. The name of the project should also be written on this outer envelope and should read, “Tender for Conducting Environmental Impact Assessment for Geothermal Exploration Drilling of Third Well”. The outer envelope should bear no identification of the tenderer. Tenders are to be received no later than 2:00p.m on Wednesday September 9th 2015. Please ensure that no additional marks are placed on the outer envelope.

Any queries relating to the tender or works included should be emailed to Mr. Rawlson Patterson, Director of Public Works Department at pattersonr@gov.ms or via telephone 1-664-491-3108.

Yours faithfully,

Beverley Mendes (Mrs.)
Permanant Secretary
Ministry of Communication, Works and Labour
Instructions to Bidders

1. The Montserrat General Conditions of Contract will be adopted for this contract.

2. Bidders must complete the **Form of Tender** for the works. Failure to fully complete these documents will lead to their bid becoming non-compliant and rejected.

3. The bidder will be deemed to have inspected the site and be familiar with the environment and working conditions on the site.

4. All works undertaken will be the subject of taxation in accordance with the current legislation of Montserrat. The bidder must submit a Tax Compliance Certificate from Inland Revenue along with their tender, if locally based. If not locally based, bidders must make provision in their bid for a 20 percent withholding tax on contract payments.

5. Tenders should be returned in a plain sealed envelope no later than **2:00pm on Wednesday September 9th 2015**. Tenders and all supporting documents should be enclosed in an inner envelope duly sealed and bearing the words, “**Tender for Conducting Environmental Impact Assessment for Geothermal Exploration Drilling of Third Well**” and addressed to “The Chairperson, Public Procurement Board, Ministry of Finance and Economic Management, Government Headquarters, Brades, Montserrat”. The name of the tenderer should also be placed on this inner envelope. The inner envelope should be placed in a large outer envelope and addressed to The Chairperson, Public Procurement Board, Ministry of Finance and Economic Management, Government Headquarters, Brades, Montserrat. The name of the project should also be written on the outer envelope and should read, “**Tender for Conducting Environmental Impact Assessment for Geothermal Exploration Drilling of Third Well**” The outer envelope should bear no identifiable mark of the tenderer. Tenders should not have any additional marks on the envelope. **Late tenders will not be considered.**

6. Participation in tendering is open on equal terms to natural and legal persons participating either individually or in a grouping (consortium) of tenderers which are registered.

7. No more than one tender can be submitted by a natural or legal person whatever the form of participation (as an individual legal entity or as leader or member of a consortium submitting a tender). In the event that a natural or legal person submits more than one tender, all tenders in which that person has participated will be excluded.

8. The Employer is not bound to accepting the lowest tenderer and has the right to accept and reject any tender offers.

9. Tenderers are requested to submitted **three (3) copies** of the tender submission.

10. All tenders will be arithmetically checked, any errors will be brought to the bidders attention. The fee rates supplied would be the basis for the arithmetic correction and would the determining factor for any queries about the corrected price.

11. A strict selection criterion will be applied to the tenderers. In the case of tenders submitted by a consortium, these selection criteria will be applied to the consortium as a
12. Economic and financial capacity of the tenderer:
In the case where the tenderer is a public body, equivalent information should be provided. The average annual turnover of the tenderer must exceed the tendered price. It is mandatory that tenderers submit with their tender a list of their current assets and current liabilities. The available financial resources of the tenderer must exceed the tendered price for conducting the study. The financial situation of the tenderer should not be in deficit, taken into account debts, at the beginning and end of the year.

13. Professional and Technical capacities of the tenderer:
   a. The tenderer can be a single individual or a firm comprising several key experts or a consortium. The individual tenderer or members of a firm or consortium must possess
   b. Minimum fifteen (15) years’ experience in the field of geothermal science and geoscientific services to the geothermal industry.
   c. Professional education in the technical area
   d. University Post-Graduate degree in Engineering with focus Geothermal Technology
   e. Member of Environmental Management and Assessment or Member of the Association of Environmental Consultants or Similar.
   f. Member of the International Partnership for Geothermal Technology

CV’s of the tenderer and or all members of the firm /consortium must be submitted with the tender.

14. The tenderer must have provided similar services under at least two contracts with a budget of at least that proposed by the tenderer for this contract within the last five (5) years. If a tenderer has implemented the project in a consortium, the percentage that the tenderer has successfully completed must be clear from the documentary evidence, together with a description of the nature of the services provided.

15. An economic operator may, where appropriate and for a particular contract, rely on the capacities of other entities, regardless of the legal nature of the links which it has with them. It must in that case prove to the Contracting Authority that it will have at its disposal the resources necessary for performance of the contract, for example by producing an undertaking on the part of those entities to place those resources at its disposal.

16. Tenders must be submitted exclusively in English to the Ministry of Finance and Economic Management. Tenders submitted by any other means will not be considered. Tenderers may alter or withdraw their tenders by written notification prior to the deadline for submission of tenders. No tender may be altered after this deadline. All written communications for this tender and contract must be in English.

17. Selection Criteria
In the assessment of submissions, consideration will be given to firms which demonstrate the following:
   (a) Technical competence, qualifications and experience, including:
       I. Available resources with postgraduate qualifications
II. At least ten (10) years experience conducting EIA in the field of geothermal drilling exploration programme.

III. In-depth knowledge of, and experience in, Environmental Impact Assessment of geothermal project from the earliest planning stages through post-project analysis. This may include but not limited to surface disturbances; fluid withdrawal; thermal and chemical pollution.

IV. Available resources with excellent command of written and spoken English. 
(b) International and/or Regional experience on geothermal surface and drilling exploration projects.
(c) Completion Time
(d) Financial capacity; and
(e) Professional affiliation/s

18. The most economically advantageous tender will be established using a three tier system in accordance with the following:

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Competence</td>
<td>30%</td>
</tr>
<tr>
<td>Previous Experience</td>
<td>20%</td>
</tr>
<tr>
<td>Timely Completion</td>
<td>20%</td>
</tr>
<tr>
<td>Price and financial capability</td>
<td>20%</td>
</tr>
<tr>
<td>Professional affiliations</td>
<td>10%</td>
</tr>
</tbody>
</table>
Ministry of Communications, Works and Labour – Tender Checklist

Project Title

Tender for Conducting Environmental Impact Assessment for Geothermal Exploration Drilling of Third Well

Date scheme advertised: Monday 17th August 2015
Tender Deadline Date: Wednesday 9th September 2015
Tender Deadline Time: 2:00pm

Below are the following documents that should be provided for a contractor’s bid to be valid. Bidders are asked to supply and tick off the following information. Failure to provide any of the stated documents will result in the bid being considered non-compliant and rejected.

- Signed Form of Tender (Including time for completion and notice period)
- Completed Bill of Quantities
- Tax Compliance Certificate (If locally based)
- Details of Two (2) contracts of Similar works within the last Five (5) years
- Signed Anti-Collusion Statement
- Curriculum Vitae for Tenderer/Consortium
- Statement of financial Capacity of Tenderer/Consortium

Signed on behalf of Contractor                      Date
FORM OF TENDER

The Chairperson
Public Procurement Board
Ministry of Finance and Economic Management
Brades
Montserrat

Dear Sir/Madam;

Re: Tender for Conducting Environmental Impact Assessment for Geothermal Exploration Drilling of Third Well

I/We the undersigned undertake to carry out the above Works in accordance with the General Conditions of Contract, Terms of Reference and Specifications for the sum of: EC$
………………………………………………………………………………………………………………
(words)……………………………………………………………………………………………………
………………………………………………………………………………………………………………
………………………………………………………………………………………………………………
Please note the applicable exchange rate from US$ to XCD is 2.7169
If my/our tender is accepted, I/We undertake to commence the Works within ____ weeks from the date of receipt by me/us of the official order and complete the works within ___ weeks from the date of receipt by me/us of the official order.

I/We understand I/We shall not be reimbursed for any cost that may have been incurred in compiling this tender. I/We confirm this tender shall remain valid for a period of 30 days from the date of submission of this tender.

Name……………………………………………………………………………………………………....
Signed……………………………………………………………………………………………………
Name of firm (If Applicable) …………………………………………………………………………
Address……………………………………………………………………………………………………
………………………………………………………………………………………………………………
Tel. nr……………………………………………………………………………………………………
Fax nr……………………………………………………………………………………………………
Email Address ………………………………………………………………………………………...
Date……………………………………………………………………………………………………....
GOVERNMENT OF MONTSERRAT (GOM)

GENERAL CONTRACT CONDITIONS FOR CONDUCTING ENVIRONMENTAL IMPACT ASSESSMENT

This Contract is made the ___ day of ___________2015 between the GOVERNMENT OF MONTSERRAT (hereinafter referred to as “GOM” which expression shall where the context so admits include its servants and agents) having its headquarters at Government Headquarters, Brades, Montserrat acting herein and represented by Mrs. Beverly Mendes, the Permanent Secretary, Ministry of Communications, Works and Labour OF THE ONE PART and ______________________________, (hereinafter referred to as “the Consultant” which expression shall where the context so admits include its servants and agents) whose address is ______________________________ acting herein and represented by ____________, OF THE OTHER PART, hereinafter together referred to as “The Parties”.

1. INTERPRETATION

1.1. In this Contract

The Contract means this agreement concluded between the GOM and the Consultant and includes its Schedules; the Invitation to tender for Conducting Environmental Impact Assessment; the tender instructions, Terms of Reference and the deliverables and considerations outlined therein; the Consultant’s Tender for Conducting Environmental Impact Assessment August 2015 (hereinafter called the Consultant’s Tender submission); and other documents which may be incorporated or referred to herein;

The Consultant means the company ____________________ which has responsibility for conducting the environmental impact assessment and includes its servants and agents.

The Administrator or CA means the duly authorized representative of GOM for the administration of this Agreement who has care and control of this Contract and whose name will be provided to the Consultant. The Administrator shall have final authority for acceptance of the Consultant’s performance, and if satisfactory, shall initiate the process for approval of payment to the Consultant. No payment shall be made without such approval.
**The Contract Price** means the gross price to be paid by **GOM** and the method of payment of the Contract Price shall be agreed between the parties.

**The Consultancy** or where referred to in the contract as “**services**” means the conducting of the environmental impact assessment as outlined in the invitation to tender for Conducting Environmental Impact Assessment and instructions to tender, scope of works and the outcomes, deliverables and considerations outlined therein, in accordance with the methodology outlined in the Consultant’s Tender submission; which the Consultant is required to undertake in the performance of this contract.

**The Terms of Reference** means the **GOM’s** requirements for the undertaking of the environmental impact assessment, the details of which are outlined in the tender document as circulated and published and which have been provided to the Consultant.

**Force Majeure** means an event or events beyond the reasonable control of a party and against which an experienced party could not reasonably have been expected to take precautions, and which delays, and/or makes a Party's performance obligations under the Agreement impossible or so impractical as to be considered impossible under the circumstances. Force Majeure events include but are not limited to, the following events: Acts of God (including but not limited to fire, flood, earthquake, storm, hurricane, volcano or other natural disaster), war, invasion, act of foreign enemies, government sanction, blockage, embargo, labour dispute, strike, lockout or interruption.

### 2. DOCUMENTS

2.1 This Contract shall comprise the following documents:

(a) The Contract (This document);
(b) Service/Tasks/Deliverables/Timelines (Schedule 1)
(c) Payment profile (Schedule 2)
(d) The Consultant’s Tender for Conducting Aeronautical Survey January 2014 (Schedule 4).
(e) The invitation to tender for Conducting Aeronautical Survey dated 18th December 2013 and tender the instructions, scope of works and the outcomes, deliverables and considerations outlined therein (Schedule 3) and;

2.2 In the event of discrepancies, inconsistencies or ambiguities of the wording of these documents, the wording of the document that first appears on the above list shall prevail over the wording of a document subsequently appearing on the list.
3. **DURATION OF CONTRACT**

Unless otherwise earlier terminated in accordance with the terms herein, the term of engagement is for a period of **Six (6) Weeks** commencing on the __________ 2015.

4. **VARIATIONS OF CONDITIONS**

4.1 The Environmental Impact Assessment shall be carried out in accordance with the terms and conditions and requirements of this Contract and no amendment or variation either to the terms and conditions or to the requirements shall be made unless agreed in writing between the parties and incorporated into this Contract.

5. **OBLIGATIONS OF THE CONSULTANT**

5.1 The Consultant agrees and undertakes that it has the appropriate qualifications, skills and experience to, and will provide the services under this Contract in accordance with the term of this Contract and the methodology outlined in the Consultant’s Tender Submission.

5.2 The Consultant undertakes:

(a) to perform the Services using the degree of skill, care and diligence to be expected from a Consultant experienced in the provision of services of a similar nature, scope and complexity as the Services to be provided under this Contract; and

(b) to comply with all standards, legislation, practices, requirements and the like applicable in the reasonable expectations of GOM likely to be applicable to the Services that are provided under the Contract.

6. **OBLIGATIONS OF THE GOM**

6.1 The GOM agrees and undertakes:

(a) to facilitate the Consultant’s work by, upon execution of the Contract, providing to the Consultant at no cost Data, Information, Documents and surveys including reports, maps, charts and requirements as well as, all information, further information, available within the Ministry, as requested by the Consultant and that are reasonably required by the Consultant for the performance of the Services;

(b) where applicable, subject to the relevant legislative provisions, to provide such approvals, and consents as requested by the Consultant in relation to the Services;
(c) to facilitate the Consultant’s work by assisting in arranging for meetings and interviews with the relevant stakeholders and others, where necessary.

7. NON-DELIVERY

7.1 Without prejudice to any other right or remedy, should the Consultant not deliver the services or any portion thereof within the time or times specified in the Contract, except in cases of force majeure and/or any third party act and/or omission and subject always to the receipt of written notice within 5 days of the above events relied on, or if the delivery of the Services are delayed due to events outside of the Consultant’s control, in which case the Consultant shall be entitled to a fair and reasonable time for such delay, then:

(a) The GOM shall be at liberty to determine the Contract and to procure services of the same or similar description from another Consultant to make good such default provided always that the Consultant shall owe no liability whatsoever or to whomsoever for any third party performance of the services.

(b) The GOM shall be able to recover from the Consultant any increased costs resulting from obtaining services from an alternative consultant.

8. PAYMENT

8.1 As full consideration for the Services performed by the Consultant under the terms of this Contract, the GOM will pay the Consultant the sum of ______________________________ (XCD$_____ ) inclusive of relevant taxes and fees in the intervals outlined in Schedule 2.

8.2 The GOM will pay the sums as outlined in Schedule 2, against original invoices delivered to the GOM by the Consultant, within 30 days of receipt of an invoice provided that GOM may give notice in writing of its intention not to pay such sums and provide the relevant reasons where:

(a) The Consultant has failed to carry out services, or has inadequately carried out services required by this Contract to be carried out and has not remedied such failure or deficiency within a reasonable time;

(b) The Consultant, by act or omission has caused damage to personnel or property of the GOM or any third party;
(c) there is a breach of any other provision of this Contract; and upon giving such notice
the GOM may withhold payment accordingly.

8.3 Whenever under the Contract any sum of money shall be recoverable from or payable by
the Consultant, the same may be deducted by GOM from any sum then due or which at any
time thereafter may become due to the consultant under the Contract as a debt, providing
that such sum is agreed by the parties as recoverable by GOM or has been fully ascertained
and substantiated by a competent authority appointed to settle the matter in accordance
with the procedure outlined under Clause 20.

8.4 If any fee or portion thereof payable under this Agreement shall be unpaid 40 days after
receipt of an original invoice in respect of such fee the Consultant may give notice to the
GOM requiring the GOM to pay such fee or part thereof and if the GOM shall fail to comply
with such notice, the Consultant may terminate or suspend this Contract immediately.
Nothing stated in this provision shall operate to impair the right of the Consultant to
recover any such fee in any other manner.

8.5 Payment shall be made to the ………………….. Bank Account as detailed below:

Name of Bank:
Entity:
Country:
Currency:
Bank Account No.
IBAN:
Swift Code:

Bank Address – Line 1:
Bank Address – Line 2:
Bank Address – Line 3:
Bank Address – Line 4:
Bank Address – Line 5:

9. INDEMNITY AND INSURANCE

9.1 Subject to clause 9.2 and without prejudice to its liability for breach of any of its obligations
under the Contract, the Consultant shall be liable for and shall indemnify the GOM against any
liability, loss, costs, expenses, claims or proceedings whatsoever arising under any statute or
common law in respect of:-

(a) Any loss of or damage to property (whether real or personal) caused by the Consultant,
its servants or agents; and/or
(b) Any injury to any person including injury resulting in death, in consequence of or in any way arising out of any negligent act or omission which may arise in the performance of the Contract by or on behalf of the Consultant except insofar as such loss, damage or injury shall have been caused by negligence on the part of the GOM, its employees, servants or agents.

9.2 Notwithstanding any other term to the contrary in this Contract or any related document and whether the cause of action for any claim arises under or in connection with this Contract in contract or tort, in negligence or for breach of statutory duty or otherwise, in relation to any and all causes of action as aforesaid the total liability of the Consultant to GOM in the aggregate for all claims shall be limited to the lesser of:

a) sum equivalent to ten (10) times the fee payable under this Contract or
b) XCD1,000,000.00.

9.3 Neither party shall be liable to the other for any indirect, special or consequential loss (including but not limited to loss of profit whether direct or indirect, loss of production, loss of contracts, loss of use, loss of business, and loss of business opportunity.

10. INSURANCE

10.1 The Consultant shall maintain public liability and professional indemnity insurance sufficient to cover the Consultant’s liabilities under this Consultancy Agreement.

10.2 The Consultant shall produce to GOM, upon request, documentary evidence that insurance is properly maintained.

11. ASSIGNMENT

11.1 The GOM shall be entitled to assign the benefit of this Contract or any part thereof and shall give written notice of any assignment to the Consultant subject to the prior consent of the Consultant, with such consent not to be unreasonably withheld or delayed.

11.2 The Consultant shall not:
11.2.1 Assign the Contract or any part thereof or the benefit or interest of the Contract without the prior written consent of the GOM; or

11.2.2 Subcontract any provision of the Contract or any part thereof to any person without the previous written consent of the GOM; such consent shall not be unreasonably withheld or delayed, and which, if given, shall not relieve the Consultant from any liability or obligation under the Contract and the Consultant shall be responsible for the acts, defaults, or neglect of any assignee, sub-Consultant or his agents or employees in all respects as if it were the acts, defaults or neglect of the Consultant or its agents or employees.

12. CONFIDENTIALITY

12.1 All information, requirements, documents and other data which the GOM may have imparted and may from time to time impart to the Consultant relating to its business, employees, customers, prices, requirements, or any computer system (including hardware and software or maintenance thereof) and including any technical specifications is proprietary and confidential.

12.2 The Consultant shall not at any time during or after the term of this Contract divulge or allow to be divulged to any person any information which comes into its possession by virtue of its performance of this Contract, which relates to the business and affairs of the GOM except upon authorization by the GOM. The Consultant shall not seek to acquire any such information outside of the performance of its duties under this Contract.

12.3 The Consultant hereby agrees that it shall use such confidential information and all other data solely for the purposes of this Contract and that it shall not at any time during or any time after the completion, expiry or termination of this Contract, disclose the same whether directly or indirectly to any third party without the GOM’s prior written consent.

12.4 The obligations of confidentiality shall not apply to information:
   (a) Which the Consultant, of necessity, needs to exchange with a third party in order to discharge the agreed services;
   (b) Which falls into the public domain through no fault of the Consultant; and
   (c) Which the Consultant is compelled to release, by order of any statutory and/or regulatory body having jurisdiction over the Consultant.

12.5 The obligations set forth in this Clause 12 shall expire five (5) years after the termination of the Contract.
13.  BRIBERY AND CORRUPTION

13.1  Either party shall be entitled to determine the Contract and to recover from the other party the amount of any loss resulting from such action if:-

(i)  Any party has offered or given or agreed to give to any person any gift or consideration of any kind as inducement or reward for doing or forbearing to do or for having done or forborne to do any action in relation to the Contract or any other contract with the other party related to the Services; or

(ii)  The like acts shall have been done by any person employed by the Parties or acting on its behalf (whether with or without the knowledge of the Party); or

(iii)  In relation to any contract with the GOM the Consultant or person employed by it or acting on its behalf shall:-

   (i)  Have committed an offence under the Integrity in Public Office Act No. 2 of 2010 or

   (ii)  Have given any fee or reward, the receipt of which is an offence, under the relevant laws.

13.2  In the performance of their obligations under or in connection with this Contract the Parties, their agents and employees shall comply with all applicable laws, rules and regulations which relate to bribery and combating bribery.

14.  TERMINATION

14.1  The GOM may terminate this Contract in any of the circumstances set out below by giving to the Consultant notice in writing where the Consultant:-

(a)  commits a material breach of any of its obligations under this Contract; and despite notice of such breach in writing by the GOM to the Consultant, the Consultant fails to remedy such breach within 14 days of the notice then the GOM may terminate the Contract forthwith;

(b)  becomes bankrupt or makes a composition or arrangement with its creditors or has a proposal in respect of its company or partnership for the voluntary arrangement for the composition of debts or scheme or arrangement approved in accordance with the Companies Act (Cap. 11.12) or the Bankruptcy Act (Cap. 3.03);
(c) has a winding-up order made or (except for the purposes of amalgamation or Reconstruction) a resolution for voluntary winding-up passed;
(d) has a provisional liquidator, receiver or manager of its business or undertaking duly appointed;
(e) has an administrative receiver appointed;
(f) has possession taken by or on behalf of the holders of any debentures secured by a floating charge of any property comprised in or subject to the floating greater than US$25,000.00; or
(g) is in circumstances which entitle a court or creditor to appoint or have appointed a receiver, a manager or administrative receiver or which entitle a court to make a winding-up order; and such termination in any such circumstances will be without prejudice to any accrued rights or remedies under this Contract.

14.2 If the Contract is terminated as provided in this condition then the GOM shall:-

(a) Cease to be under any obligation to make further payment until the costs or loss resulting from or arising out of the termination of this Contract shall have been calculated, and shall make such payment only in accordance with a court order or pursuant to the applicable law;
(b) Be entitled to repossess any of its Equipment (if any) in the possession of the Consultant;
(c) Be entitled to deduct any losses to the GOM resulting from or arising out of the termination of this Contract (from any sum or sums which would but for the termination of the contract as aforesaid have been due from the GOM to the Consultant as a debt). Such loss shall include the reasonable cost to the GOM of the time spent by the GOM in terminating of the Contract as aforesaid have been due to the Consultant.

15. WAIVER

15.1 The failure by either party to enforce at any time or for any period any one or more of the terms or conditions of this Contract shall not be a waiver of them or of the right at any time subsequently to enforce all terms and conditions of this Contract. No waiver of any default or non-performance by any party shall be considered a waiver of any subsequent default or non-performance.
16. COMPLETE CONTRACT

16.1 This Contract supersedes any prior Contract between the parties whether written or oral relating to the subject matter hereof, but without prejudice to any rights which have already accrued to either of the parties.

17. GOVERNING LAW

17.1 This Contract shall be governed by the laws of Montserrat in every particular and shall be deemed to be made in Montserrat.

18. FORCE MAJEURE

18.1 Where the performance by a Party of their obligations under this Contract is delayed, hindered or prevented, this inability of the Party to fulfil its performance obligations under this Contract shall not be considered to be a breach of or default under this Contract if such inability arises from an event of Force Majeure, provided that the Party affected shall within five (5) days of the force majeure event relied on, inform the other Party about the occurrence of such an event and state the anticipated delay in the performance of this Agreement.

18.2 If the Consultant is rendered permanently unable, wholly, or in part, by reason of force majeure to perform its obligations and meet its responsibilities under this Contract, the GoM shall upon receipt of notice under 18.1 have the right to terminate this Contract on giving to the Consultant fourteen (14) days’ notice.

18.3 Notwithstanding the provisions of sub-clauses 18.1 and 18.2 above the parties may mutually agree in writing to extend the period for performance of the obligations of the Agreement.

19. NOTICES

19.1 Any notice required to be served under this Contract shall be in writing and may be served by electronic mail to the correct address, facsimile transmission to the correct number, post or hand delivery to the last known business address of the party upon whom it is being served. Notice shall be deemed to have been effected within 24 hours of the date of sending of the notice when sent by electronic mail or facsimile transmission, within 72 hours of the date of posting of the notice when sent by post and upon delivery when hand delivered.
19.2 All legal notice shall be delivered as follows:
   A. if to the Consultant, to:

      Address:
      Email:

   B. if to the **GOM**, to:

      Beverley Mendes  
      Permanent Secretary  
      Ministry of Communications, Works and Labour  
      Brades  
      Montserrat  
      Tel: (664) 491-2521 or 2522  
      Fax: (664) 491-6659  
      Email: mcw@gov.ms  
      Email: mendesb@gov.ms

19.3 All day-to-day correspondence for the project shall be delivered as follows:

   A. if to the Consultant, to:

      Address:
      Email:

   B. if to the **GOM**, to The Administrator:

20. **MEDIATION AND ARBITRATION**

20.1 In any event of a dispute between the Parties concerning any matter arising from or concerned with this Contract, the Parties shall use reasonable efforts to settle the dispute through negotiations conducted in good faith between their duly appointed representatives who have authority to settle the same on behalf of the Parties.

20.2 If the dispute is not resolved through negotiations within twenty (20) working days of written invitation to negotiate, the Parties shall attempt to resolve the dispute by mediation with a
mediator to be appointed upon the mutual agreement of the Parties. The cost of the mediator shall be shared equally between the Parties.

20.3 If the dispute is not resolved by mediation, within forty (40) working days of the first mediation session, then the matter can be referred to arbitration by any Party. The arbitration shall be governed by the Arbitration Act (Cap. 3.02) of Montserrat and Rules as agreed between the Parties. The arbitration shall be referred to 2 arbitrators, one appointed by each Party. The arbitrators so appointed shall forthwith appoint an umpire. The umpire shall attend all hearings, including preliminary meetings, but shall act only if the arbitrators appointed by the Parties fail to agree. Should the Parties fail to agree on the Rules; the Rules and procedure to be adopted will be determined by the Arbitrators. The place of arbitration shall be mutually agreed between the Parties, but in the event of dispute it shall be Montserrat. The arbitration shall be conducted in the English language. The decision of the Arbitrator shall be final and binding on both Parties.

21. SIGNATURES

21.1 Each party represents and warrants that on this date they are duly authorized to bind their respective principals by their signatures below.

IN WITNESS WHEREOF, the Parties have executed this Contract on the dates set forth first above, with full knowledge of its content and significance and intending to be legally bound by terms hereof.

Signed for and on behalf of the **Government** by:   Signed for and on behalf of the **Consultant** by:

<table>
<thead>
<tr>
<th>Name: Beverley Mendes</th>
<th>Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Designation: Permanent Secretary,</td>
<td>Designation:</td>
</tr>
<tr>
<td>Ministry of Communications, Works and Labour</td>
<td></td>
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</tbody>
</table>

Signature..................................................   Signature..................................................

Witness Name...........................................   Witness Name...........................................

Designation.............................................   Designation.............................................

Signature..................................................   Signature..................................................
SCHEDULE 1

Services/Tasks/Deliverables/Timelines
a) The Consultant will provide the services in accordance with the standards and timelines outline herein:

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<thead>
<tr>
<th>Services/Deliverables</th>
<th>Timelines</th>
<th>Fees</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SCHEDULE 2

Obligations of each party under this agreement
a) The Consultant will provide the services in accordance with the standards and timelines outline herein:

<table>
<thead>
<tr>
<th>Consultant’s obligations</th>
<th>GOM’s obligations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SCHEDULE 3

Documents making up the contract between the parties:
Government of Montserrat

Environmental Impact Assessment
Terms of Reference

Geothermal – Drilling of Exploratory Production Well
1.0 Brief Description

This assignment requires the consultant to provide specialist environmental services to the Government of Montserrat with regard to environmental prevention and protection and risk management actions for geothermal test drilling and related activities on the island.

The assignment will comprise an Environmental Impact Assessment (EIA) for each of the option sites for a proposed drilling production well, including proposed Environmental Management Plan’s to guide and monitor the performance of the drilling contractor. The EIA will also include an assessment of social impacts and subsequently a separate Social Management Plan will be developed for each site.

2.0 Background

The island of Montserrat is a UK Overseas Territory, located in the Leeward Islands of the Eastern Caribbean, part of the Lesser Antilles Island Chain (see Figure 1). Montserrat is approximately 16 km long and 11 km wide, equating to 102 km²; it has a population of approximately 4,950. The island is the most mountainous of the Leeward Islands and is dominated by the volcanic massive of the Soufrière Hills Volcano.

The GDP per capita is approximately US$ 11,575 (2001 data). There is limited economic activity on the island including mining and quarrying, construction, financial and professional services and tourism. Volcanic eruptions in 1995 destroyed the capital city and enforced the permanent relocation of inhabitants from two-thirds of the island (see Annex 1). Since then the territory has been dependent on UK aid, with the Department for International Development (DFID) currently providing 60% of Montserrat's recurrent budget in the form of budget support. Montserrat's economy is 100% fossil fuel based with the Government of Montserrat spending £ 1.7 million annually on fuel imports. This is unsustainable from an environmental, climate change and economic perspective. Given its volcanic origins, Montserrat has the potential for geothermal electrical power generation as an alternative to a power based on imported fossil fuels.
The exploration and exploitation of Montserrat's potential geothermal resource is one of the Government of Montserrat's highest priorities as development is considered. However, it is an innovative area of energy development with high up front cost. Several studies have been undertaken to identify potentially exploitable geothermal sources on the island. The most recent of these (including that undertaken by EGS) have concentrated on an area which lies within the Weekes Valley between Garibaldi Hill and St George’s Hill in a zone that is in the volcanic risk area (but considered safe from direct volcanic threat) where 24 hour access is now possible for majority of the valley (although mud slides in the Belham River may interrupt access into the potential development area).

Figure 1. Montserrat location.

In 2010 a DFID funded study assessed the geothermal potential of Montserrat. This built on the findings of other research commissioned since 1997 and concluded that there is high probability that Montserrat has considerable geothermal resources. The most conservative research suggests that there is a 75-80% chance of at least 5 MW of power available. In 2011 DFID commissioned an economic assessment of the commercial viability for resources of different sizes e.g. 2-5 MW, <25 MW and >50 MW. This assessment determined that a 2
MW production capacity had the most favourable economic rate of return and would be sufficient for Montserrat’s immediate and medium-term requirements.

In 2013/14 two exploration production wells were drilled which were supported by an Environmental and Social Impact Assessment, Environmental Management Plan and Social Management Plan. However, the ESIA was restricted to the activity of the drilling of the two wells and did not include any impacts which occurred post drilling.

### 3.0 Proposed Project

The Government wishes to continue the projects Phase 2 which covers the exploratory drilling for a third well in a location that is intended to find the geothermal reservoir and determine its capacity output. This phase will thus help to ascertain a suitable configuration for geothermal plant. There are two sites which have been identified as possible drill sites, both of which require an Environmental Impact Assessment. The two option sites are within the same locality and therefore it is acceptable that the two assessments can be produced simultaneously and within one document.

Recognising the high cost of mobilisation of drilling equipment to Montserrat, it is proposed to proceed directly to the drilling of one production size well (rather than smaller pre-production exploration ‘slim hole’ that would then need to be followed by production well). Given the very small area able to be explored within the accessible zone, the drilling of a slim a hole before the production well is not expected to influence the well locations and may unreasonably delay (and burden with additional costs) what is an already relatively costly development.

### 3.1 Technical information

Technical information for the production wells as proposed is given below:

<table>
<thead>
<tr>
<th>Well Information</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>St Georges Hill</td>
</tr>
<tr>
<td>Well 3 Option A Co-ordinates</td>
<td>62°12'36.332&quot;W  16°43'42.789&quot;N</td>
</tr>
<tr>
<td>Well 3 Option B Co-ordinates</td>
<td>62°12'33.287&quot;W  16°43'39.645&quot;N</td>
</tr>
</tbody>
</table>
### Depth

Nominal measured depth of between 2000 and 2500 metres

<table>
<thead>
<tr>
<th>Drilling and Casing Programme</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Conductor</strong></td>
</tr>
<tr>
<td><strong>Surface Casing</strong></td>
</tr>
<tr>
<td><strong>Anchor Casing</strong></td>
</tr>
<tr>
<td><strong>Production Casing</strong></td>
</tr>
<tr>
<td><strong>Open hole</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wellhead Completion</th>
<th>Test Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 3/8” 3000 wellhead flange with adaptor spool 10” to 13 3/8”</td>
<td>1000 psi</td>
</tr>
<tr>
<td>10” 900 Master Valve with 2 x 1 3/8” 900 side valves</td>
<td>1000 psi</td>
</tr>
</tbody>
</table>

#### 3.2 Overview and Assumptions

There are two existing drill wells located further down the slopes east of the option sites and it is intended that the third well will provide a suitable configuration for geothermal energy output. The planned production well is designed to locate the geothermal reservoir and produce geothermal fluids for power generation. This well will be flow tested in order to perform a qualitative and quantitative reservoir analysis. The well will be designed to safely produce fluids with temperatures up to approximately 250°C with a wellhead pressure of 1300 psi.
Assumptions were made in order to estimate the amount of days, equipment and materials needed to drill and complete the production well. Those assumptions include, but are not limited to:

1. Fluid temperatures are expected to be anywhere up to 250°C

2. Ground water could be encountered at an approximate depth of 200 metres.

3. A Drilling Rig Contractor will be selected through international tender and will be engaged to supply, mobilise, drill and complete the one well as shown on a turnkey basis. The Contract will require that the Drilling Contractor provide all equipment, consumables, drilling and cementing materials, casing and all casing accessories, all related services and personnel to undertake the drilling programme in its entirety. The Drilling Contractor will also be responsible for the implementation of the social management plan and environmental management plan which will include the monitoring and management of well fluids.

4. An adequate water supply for drilling, nominally 3500lpm, will be provided by the Operator drawing on supplies available through the existing water system on the island. The installation of pipes will be included in the scope of the EIA’s.

5. The Drilling Rig Contractor will require access to both sites for delivery of plant and equipment via the existing road structure and Plymouth jetty. The vegetative clearance and reinstatement of roads and ditches will be included in the scope of the EIA’s.
4.0 Purpose

The purpose of this consultancy is to ensure that:

a) Any potential environmental and social impacts associated with drilling activities are clearly identified and any impacts which may occur post-drilling in the event that the well is fully commissioned for production of geothermal energy are also highlighted and considered.

b) All geothermal test drilling activities are managed in order to avoid or minimise negative environmental and social impacts.

c) Opportunities for creating/enhancing environmental and social effects/benefits, which will assist with any mitigation, are identified.

d) Stakeholders have opportunities to contribute to the process of environmental assessment and management and are kept informed of its progress.

e) Any potential impacts on the development caused by environmental conditions are also identified.

In undertaking the study it should be noted that this is an exploratory phase for a potential geothermal development and that any power plant installation will be dependent on the outcome of the drilling programme.

5.0 Study Area and Impact Zones

There are two options for the location site for the third exploratory well. These are located on the elevated slopes of St. Georges Hill which is considered the most practical place to test for a third well from a geological, logistical and safety perspective (see Figure 2). The area is located between 300m and 900m east of Well 2 and north east of Well 1. Two major geomorphological features dominate the prospect area: Garibaldi Hill and St George’s Hill.

The EIA study areas will include both these hills and also the Belham Valley which stretches northwest from the location sites to the settlement at Old Towne. The area south of Garibaldi Hill has been filled with mudflows since the last eruption which stretches down to Fox’s Bay. St George’s Hill is located east of Garibaldi Hill and is surrounded on its east and south part by the pyroclastic flows of the most recent eruptions. These two areas will be the primary focus of the
EIA’s, which should be carried out in accordance with the requirements of the Physical Planning Act 2002 (Cap. 8.03) in order to identify the potential environmental and social impacts of both the drilling activities and the longer term impacts of have a permanent fully commissioned production well.

The impact assessment should also include but not limited to the following:-

- the use of access roads to and from the sites from Plymouth jetty and the possible marine impact of the dredging around Plymouth jetty.
- all site preparation:- establishment of well site pad, on site vegetation clearance, any excavation works to level the site for operations, drainage systems for waste waster disposal
- water pipe installation for the supply of water to the site

However, it is considered that the waste water disposal and its route/destination from the site is likely to be the primary environmental impact.

The EIA’s should be then supported by developing appropriate mitigation measures in the form of an Environmental Management Plan and a Social Management Plan for each option site.
Figure 2. Proposed Exploratory Drilling Locations.

Geothermal Project

Figure 3. Proposed Study Locations for Drilling
The potential impact zones will be the drilling locations themselves and surrounding areas; the extent of the impact zone beyond the drilling sites will be determined by the EIA consultant.

It should be noted that option site A is within the restricted exclusion zone V as identified in Annex A and will require permission for entry from Disaster Management Co-ordination Agency (DMCA). Option site B however is within exclusion zone C but has 24 hour access. Although the location of the option sites are within or adjacent to an area where 24 hour access is allowed, impacts on local communities are likely to be relatively limited.

6.0 Proposed Methodology
The EIA process must be consistent with requirements of the environmental standards agreed by Department for International Development (DFID) and the Government of Montserrat (GOM), section 5.4 in DFID Environment Guide and must comply with national legislation. The methodology proposed for the EIA comprises the following key steps for each option site:

- assessment of alternate sites and justification for selecting the each site, including the no-project option (this should be a short analysis which considers alternatives in terms of possible locations, different layouts)
- Rapid scoping assessment to identify the key issues and impacts (see Section 7) – this should be in consultation with the Department of Environment
- Legal status of each proposed project site with respect to various applicable environmental legislations and international performance standards on social and environmental sustainability
- Stakeholder engagement and consultation to explain the project and EIA process and capture concerns and perceptions (which should subsequently be considered in the development of the Environmental and Social Management Plan).
- Baseline studies to define existing relevant physical, biophysical and social conditions.
- Environmental Impact Assessment which will evaluate the likely environmental impacts on the physical and biological environment but also taking into account inter-related socio-economic, cultural and human health impacts both beneficial and adverse.
- Environmental Management Plan which will ensure that all necessary measures are
identified and implemented, set to a timeline with specific responsibilities assigned and follow up actions defined in order to protect the environment

- Social Management Plan which will ensure that all necessary mitigation measures are identified and implemented through identifying key strategies for stakeholder management and community participation.

Proposals should make clear and justify any variations from this methodology and the budgetary implications of such variations.

7.0 Provisional Impacts and Issues

The impacts and preventative, reduced and/or mitigation measures should be analysed for each of the following:-

- Physical environment
- Natural environment
- Landscape and Visual including environmental heritage
- Human and social environment

Each of these elements the impacts should be explained for each phase of construction, operation and dismantling.

A preliminary desktop assessment undertaken in July 2014 generated a provisional list of potential impacts and issues

- Impacts on surface water/groundwater.
- Solid and liquid wastes.
- Landscape and visual (inc. cultural and archaeological)
- Sociological context (Geography Based Groups and Interested Based Groups)
- Air quality (inc. noise and vibration)
- Transport and infrastructure including any vegetative clearance for access roads
- Impacts on fauna and flora including marine life
- Impacts that may occur due to accidental events
- Soil and land contamination.
- Induced landslides.
- Steam discharge (Temperature/SO²)
- Accidental spills and overflows

As part of the EIA for each option site, the selected consultant should complete a scoping exercise using desktop and field-based data and information to update and amend the provisional list of impacts and issues as necessary.

In the context of the proposal drilling programme, the following impacts are not expected to be significant:
- Greenhouse gas emissions.
- Atmospheric heat pollution.
- Land acquisition and land use conflicts.
- Land take.
- Subsidence.
- Induced seismicity.

However, the selected Consultant will be expected to assess these assumptions in more detail and ensure that these are not significant potential impacts.

**8.0 Principal Tasks and Output**

For each option site the consultant will:

a) Regulatory Framework - Undertake a legal review, identify and consider national environmental laws and regulations that are relevant to the proposed test drilling and that may influence the conduct of each EIA and development of both Environmental Management Plans (EMP) and Social Management Plans (SMP). Any regional environmental impact assessment reviews undertaken with regards to best practice should be also assessed. The Consultant will be expected to take into account the legal and institutional requirements stated in Annex 2 and apply international good practice, in a proportionate manner and adapted to the circumstances of Montserrat.
b) Undertake stakeholder analysis to determine the scope for participation and consultation in the development of the EIA’s, with a subsequent plan to coordinate and collate the views of interested parties and to provide relevant materials to the public in a timely manner. Implement the consultation plan, keeping records of meetings and issues arising.

c) Develop a Background Information Document (BID). The BID should introduce the proposed project and the EIA process that will be followed. The BID will be the core document used during consultation with stakeholders. Stakeholder consultation is a critical element of the work and it is expected that the consultant will undertake a programme of interviews and focus group discussions, ensuring that the outputs of those discussions feed in to the assessment process.

d) Undertake an initial scoping study for each site to further define and validate the key environmental impacts and issues. This should be in consultation with the Department of Environment.

e) Establish baseline conditions for each site relevant to the key environmental impacts and issues. These are likely to include (but may not be limited to):

**Air:** climatologic and meteorological data for dispersion of air pollutant during construction and production activities including noise and vibration in relation to nearest residential communities

**Water:** hydrogeology, hydrology, surface water, ground water which are likely to receive discharge form drilling activities

**Landscape and Visual:** site and surrounding land use, land cover, landscape character, visual assessment from key visual receptors (such as residential properties and tourist destinations inc. heritage sites)

**Biological Environment:** ecological habitat assessment of site and immediate surrounding area identifying any significant or important species (flora and fauna), large trees, habitats including breeding ground and access corridor for food and shelter, rare and endangered species

**Socioeconomic Environment:** identify all stakeholder including interest based groups and geographical based groups; archaeological locations or heritage sites, tourist attractions, public health, human settlements, workers safety, etc.
f) Undertake an Environmental Impact Assessment for each option site: Each impact assessment shall be carried out for all the project phases (described above) using quantitative or qualitative methods defining the potential negative and positive environmental and social impacts arising from the geothermal test drilling and the fully commissioned production well.

g) Create a comparative impact assessment table which compares and evaluates the various key environmental impacts listed above between the two option sites.

h) Develop an Environmental Management Plan which considers both option sites that will eliminate or minimise negative environmental impacts and that contains appropriate monitoring measures and performance indicators that the Government of Montserrat can use to ensure that appropriate management of potential environmental impacts is being achieved. Include a plan to monitor the implementation of the mitigation measures and impacts of the project. Include issues related to future management of the site in the event of:

1) decommissioning if the resource is not proven for further development:
2) implications and recommendations for future EMP should the resource be proven.

i) Develop a Social Management Plan which considers both option sites that will present in a concise manner the adverse impacts and benefits associated with the project, to identify the most effective strategies for the mitigation and management of the impacts and to monitor and manage the implementation of the strategies. It should also seek to identify key strategies for stakeholder management and community participation.

j) Present the findings of the EIA’s and both the Environmental and Social Management Plans in concise reports with relevant appendices. This will be the principal output and should be prepared in line with DFID and GOM agreed standards and the details as provided in the provisional lists detailed in Section 7 of this Terms of Reference.
9.0 Reporting Requirements and Schedule

The EIA report’s, BID, EMP and SMP should be submitted to Permanent Secretary of Ministry of Communication, Works and Labour.

Reports should be submitted as follows:

Three (3) hard copies.

One (1) electronic copy by email.

The estimated timing of activities is shown below:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signing of contract with EIA consultant</td>
<td>Week 0</td>
</tr>
<tr>
<td>High level scoping review</td>
<td>End week 1</td>
</tr>
<tr>
<td>Preparation of BID for use during consultation</td>
<td>End week 1</td>
</tr>
<tr>
<td>Stakeholder consultation</td>
<td>Weeks 2</td>
</tr>
<tr>
<td>Review scoping study</td>
<td>End week 2</td>
</tr>
<tr>
<td>Baseline investigations, impact identification and analysis</td>
<td>Week 2</td>
</tr>
<tr>
<td>Identification of mitigation measures</td>
<td>Week 4</td>
</tr>
<tr>
<td>Report preparation and submission of draft EIA report for review</td>
<td>Week 4</td>
</tr>
<tr>
<td>Development of Environmental Management Plan</td>
<td>End week 4</td>
</tr>
<tr>
<td>Development of Social Management Plan</td>
<td>End week 4</td>
</tr>
<tr>
<td>Submission of final EIA report (following feedback from Government of Montserrat)</td>
<td>End week 6</td>
</tr>
<tr>
<td>Submission of final EMP and SMP (following feedback from GOM)</td>
<td>End week 6</td>
</tr>
</tbody>
</table>

Any digital maps produced should be in GIS format, and must be appropriately geo-referenced. When in Montserrat, the EIA consultant will base themselves in the offices of the Public Works Department (PWD) within the Ministry of Communications, Works and Labour. Access to the
comprehensive GIS system, aerial photography and any relevant past reports can be arranged. The consultant shall report to Director PWD and shall work closely with Director of Environment and the Chief Physical Planner to ensure smooth running of the project and timely completion of the assignment.

10.0 Proposal Preparation

The EIA consultant shall submit a technical proposal that demonstrates a clear understanding of the requirements; scope and nature of the work outlined in the TOR, an in-depth understanding of the requirements to develop an environmental and social framework pertaining to geothermal exploration, test drilling and resource development. The consultant’s team shall include as a minimum:

- Environmental and Social Management Specialist (international) – approximately 4 weeks of on-island input and 2 weeks of off-island input.
- Sociologist/Communication Specialist (local) to assist with stakeholder consultation – approximately 1 week of on-island input.
- Hydrogeologist (international) – approximately 1/2 week of off-island support.
- Ecologist (international) to work with the Department of Environment and / or the Fisheries Section of the Department of Agriculture – approximately 1 week of on-island support.

In addition to these Terms of Reference, the following documents should be reviewed prior to preparation of a proposal to undertake the EIA:


The proposal should include a detailed budget covering staff time, proposed travel and any associated analytical costs. The budget should allow for one cycle of the EIA report based on feedback from the Government of Montserrat.

On-island accommodation and transport will be the consultant’s responsibility.
ANNEX 1
Hazard Map for Montserrat

A hazard risk system now divides the southern two-thirds of Montserrat into five zones – access to zone V is strictly controlled. A map identifying these boundaries is included as Annex 1 to this Terms of Reference (TOR) and more details are available on the Montserrat Volcano Observatory Website (www.mvo.ms).

The selected Consultant will be required to work in Zone C for option site B, to which there is 24 hour access at present and zone V for option site A where access is only permitted under strict authority. Please contact the Disaster Management Co-ordination Agency on 491 7166 to request access. Further information on the hazard map and access restrictions is available on the Montserrat Volcano Observatory website – http://www.mvo.ms.
ANNEX 2
Primary Policy and Legislation That May Be Applicable to this EIA

Under the existing Physical Planning Act and Subsidiary Legislation an application for development permission in respect of a development specified in the Third Schedule (which includes activities related to geothermal energy) must be accompanied by an EIA of the proposed development. The EIA must include the matters specified in the Fourth Schedule. Under the Conservation and Environmental Management Act 2014, the proposed Conservation and Environmental Management (Certificate of Environmental Approval) Regulations also give further detail on the minimum statutory standards for preparation of an EIA and the review process and public consultation on an EIA. This can be obtained from the Department of Environment.

Government of Montserrat Development Policy
Sustainable Development Plan
National development to 2020 is guided by the Montserrat Sustainable Development Plan (SDP). The development vision is:

“A healthy and wholesome Montserrat, founded upon a thriving modern economy with a friendly, vibrant community, in which all our people through enterprise and initiative, can fulfil their hopes in a truly democratic and God fearing society.”

The SDP provides a framework for guiding and measuring progress towards the vision. The PDP will, therefore, provide the physical blueprint for the supporting development and infrastructure and the effective realisation of the SDP. Environmental Management and Disaster Mitigation is one of the five strategic goals that underpin the attainment of the vision: the goal is:

“Montserrat’s natural resources conserved within a system of environmental sustainable development and appropriate strategies for disaster mitigation”.

In working towards this goal, the SDP specifies the following development outcomes for 2020:

- Sustainable use and management of the environment and natural resources
- Long term improvement in the state of environmental resources
- Effective disaster mitigation, response and recovery at the national and community levels and adaptation to climate change
The **Strategic Focus** of development will be:

- Development of efficient & effective governance structures for environmental management & disaster mitigation, with the required legislation, policies and regulations developed and enforced
- Integration of environmental issues and disaster risk management principles into economic, social and physical planning and decision making
- Development and implementation of strategies and plans to protect and conserve biodiversity and other natural resources
- Strengthening organisational capacity
- Developing and implementing environmental health programmes, including integrated wastemanagement systems, with associated standards and regulations that will reduce the impact of waste on ecosystems
- Develop disaster mitigation and response capability by building the capacity of emergency response agencies, other state agencies & facilities, as well as capacity at the community level
- Development of Montserrat as centre of excellence for response to natural hazards and climate change
- Developing measures to adapt to climate change with a view to minimising the impact of climate change through natural disasters through increased coping capacity at all levels within the country
- Protection and conservation of historical sites, artefacts and cultural heritage
- Education

**Physical Development Plan for North Montserrat 2000 – 2009**

The current PDP for North Montserrat contains a suite of Policies which place the Environment and Sustainable Development at the heart of the land planning process. The PDP for North Montserrat is currently being updated by the GOM and the consultant should liaise with the Physical Planning Unit on this process.
**National Environmental Management Strategy and Action Plan 2006-2008**

The National Environmental Management Strategy and Action Plan set out a blueprint for environmental management on Montserrat which is still guiding development today. The NEMS was set in the context of the 2003-2007 SDP, but its goals and targets, which largely reflect those of the St Georges Declaration, have cascaded into the goals of the current SDP to 2020. The paper comprised six strategies against which good progress has been made. These include institutional changes to allow for the creation of the DoE and the consolidation of legislation.

**Department for International Development Environment Guide**

Section 5.4 Environmental Impact Assessment – an environmental impact assessment (EIA) is a multidisciplinary, comprehensive and detailed study of the expected significant interactions between a proposed development and the environment within which it is to be implemented.

**Government of Montserrat Legislation:**

- **The Physical Planning Act (PPA)**

The Physical Planning Act (PPA) provides the overarching framework for land use planning in Montserrat. Specifically it covers development and development control, environmental protection and the preservation and management of heritage buildings and sites.

- **Conservation and Environmental Management Act 2014**
- **The Water Authority Act Cap 18.5 (1972 revised 2002)**
- **Beach Protection Act (1980, revised 2002)**
- **Turtles Act (1952):**
- **Roads Act (Cap 07,07 1907 revised 2002):**
- **Plant Protection Act (Cap 9.02, 1942, revised 2002):**
- **Underground Water Act (Cap 14.08, 1967, revised 2002):**
International Environmental Conventions and Charters:

Montserrat UK Overseas Territories Environment Charter (UKOTEC)
The Charter includes guiding principles and a set of mutual commitments by the UK Government and the Government of Montserrat in respect of integrating environmental conservation into all sectors of policy planning and implementation. Key among them, the commitment to “Ensure that environmental considerations are integrated within social and economic planning processes, promote sustainable patterns of production and consumption within the Territory”.

St Georges Declaration of Principles for Environmental Sustainability in the OECS (2006)
The St. George’s Declaration of Principles for Environmental Sustainability in the ECS (SGD), was signed by the OECS Ministers of the Environment in April 2001. The Declaration sets out the broad framework to be pursued for environmental management in the OECS region and is based on 21 principles. Each principle has a set of national targets and indicators. These are translated at the national level through a country’s National Environmental Management Strategy (NEMS). The Montserrat NEMS has since cascaded into the goals and targets of the SDP.

Multilateral Agreements
A number of multilateral agreements have been extended to Montserrat including:

- Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention);
- Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention);
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES);
- Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention); and
ANNEX 3
Photographs of the project

View from Plymouth Jetty towards drill sites

View from Plymouth Jetty towards Volcano
The main Cork Hill to Plymouth Road

The Weekes’ Road to the proposed third drill Site-01 and Site-02
The Entry Point at the proposed third drill Site-01

The proposed third drill Site-01
The proposed third drill Site-02

Proposed water lines (in blue) to proposed third drill Site
EVALUATION OF TENDER

Evaluation Criteria

The following evaluation criteria will be used to evaluate tenders received in response to this Invitation to Tender. **Tenders must achieve a minimum score of 65% to be considered for award of contract.**

<table>
<thead>
<tr>
<th>Criteria Description</th>
<th>Weight (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Competence</td>
<td>30</td>
</tr>
<tr>
<td>Previous Experience</td>
<td>20</td>
</tr>
<tr>
<td>Completion Time</td>
<td>20</td>
</tr>
<tr>
<td>Price and Financial Capability</td>
<td>20</td>
</tr>
<tr>
<td>Professional Affiliations</td>
<td>10</td>
</tr>
</tbody>
</table>

Tenderers that fail to meet the above qualifying score will be rejected and not considered for award of contract.

**Technical Competence (30%)**

Adherence to technical competence is paramount. Prospective tenderers or members of the consortium must have professional experience in the technical area. They should possess a University Post Graduate degree in Engineering with a focus in Geothermal Technology. Tenderers should have at least ten (10) years experience conducting EIA in the field of geothermal drilling exploration programme. In-depth knowledge of, and experience in, Environmental Impact Assessment of geothermal project from the earliest planning stages through post-project analysis would be an asset. This may include but not limited to surface disturbances; fluid withdrawal; thermal and chemical pollution. The percentage for this criterion will be calculated proportionately in comparison to other submissions from tenders.

**Previous Experience (20%)**

The procuring entity is desirous of having the most qualified persons undertake the necessary works. In light of this the tenderer should have a minimum of fifteen (15) years of experience in the field of geothermal science and geo-scientific services to the geothermal industry. In addition the tenderer must have provided similar services under at least two (2) contracts with a budget of at least that proposed by the tenderer for this contract within the last five (5) years. If a tenderer has implemented the project in a consortium, the percentage that the tenderer has successfully completed must be clear from the documentary evidence, together with a description of the nature of the services provided. The percentage for this criterion will be calculated proportionately in comparison to other submissions from tenders.
**Completion Time (20%)**

The procuring entity is desirous for the works to be completed as soon as possible. Marks will be awarded to the tenderer who proposes to complete the works soonest. The procuring entity has a deadline of six (6) weeks to complete the works after the commencement. The percentage for this criterion will be calculated proportionately in comparison to other price submissions from tenders.

**Price (20%)**

Tenderers must complete the Form of Tender and the Bill of Quantities and return them with their tender submission. The tendered price is a significant factor and the Government of Montserrat will seek to ensure that the works are undertaken at the most economically advantageous price. However, there are other factors which comprise the criterion and these will be considered proportionately. Government of Montserrat is not bound to accept the lowest or any tender. The percentage for this criterion will be calculated proportionately in comparison to other price submissions from tenders.

**Professional Affiliations (10%)**

Tenderers, whether in a consortium or individually, must be members of various professional associations and organizations related to the field of Geothermal Energy and Environmental Science. These are but not limited to Member of Environmental Management and Assessment, Member of the Association or Environmental Consultants, Member of the International Partnership for Geothermal Technology or Similar. All members of the tendering consortium must submit their CV’s with the submission. The percentage for this criterion will be calculated proportionately in comparison to other submissions from tenders.
GOVERNMENT OF MONTSERRAT

TENDER SUBMISSION ANTI-COLLUSION CERTIFICATE

I/WE CERTIFY THAT THIS TENDER IS MADE IN GOOD FAITH, AND THAT WE HAVE NOT FIXED OR ADJUSTED THE AMOUNT OF THE TENDER BY OR UNDER OR IN ACCORDANCE WITH ANY AGREEMENT OR ARRANGEMENT WITH ANY OTHER PERSON. I/WE ALSO CERTIFY THAT WE HAVE NOT AND I/WE UNDERTAKE THAT WE WILL NOT BEFORE THE AWARD OF ANY CONTRACT FOR THE WORK:

DISCLOSE THE TENDER PRICE OR ANY OTHER FIGURES OR OTHER INFORMATION IN CONNECTION WITH THE TENDER TO ANY OTHER PARTY (INCLUDING ANY OTHER COMPANY OR PART OF A COMPANY FORMING PART OF A GROUP OF COMPANIES OF WHICH I AM/WE ARE A PART OF) NOR TO ANY SUB-CONTRACTOR (WHETHER NOMINATED OR DOMESTIC) NOR SUPPLIER (WHETHER NOMINATED OR DOMESTIC) OR ANY OTHER PERSON TO WHOM SUCH DISCLOSURE COULD HAVE THE EFFECT OF PREVENTING OR RESTRICTING FULL COMPETITION IN THIS TENDERING EXERCISE

ENTER INTO ANY AGREEMENT OR ARRANGEMENT WITH ANY PERSON THAT THEY SHALL REFRAIN FROM TENDERING, THAT THEY SHALL WITHDRAW ANY TENDER ONCE OFFERED OR VARY THE AMOUNT OF ANY TENDER TO BE SUBMITTED OR OTHERWISE COLLUDE WITH ANY PERSON WITH THE INTENT OF PREVENTING OR RESTRICTING FULL COMPETITION

PAY, GIVE OR OFFER PAY OR GIVE ANY SUM OF MONEY OR OTHER VALUABLE CONSIDERATION DIRECTLY OR INDIRECTLY TO ANY PERSON FOR DOING OR HAVING DONE OR CAUSING OR HAVING CAUSED TO BE DONE IN RELATION TO ANOTHER TENDER OR PROPOSED TENDER FOR THE WORK ANY ACT OR THING OF THE SORT DESCRIBED AT I), II) OR III) ABOVE.

I/WE FURTHER DECLARE THAT I/WE HAVE NO KNOWLEDGE EITHER OF ANY SUM QUOTED OR OF ANY OTHER PARTICULARS OF ANY OTHER TENDER FOR THIS CONTRACT BY ANY OTHER PARTY.

I/WE FURTHER CERTIFY THAT THE PRINCIPLES DESCRIBED ABOVE HAVE BEEN, OR WILL BE, BROUGHT TO THE ATTENTION OF ALL SUB-CONTRACTORS, SUPPLIERS AND ASSOCIATED COMPANIES PROVIDING SERVICES OR MATERIALS CONNECTED WITH THE TENDER AND ANY CONTRACT ENTERED INTO WITH SUCH SUB-CONTRACTORS, SUPPLIERS OR ASSOCIATED COMPANIES WILL BE MADE ON THE BASIS OF COMPLIANCE WITH THE ABOVE PRINCIPLES BY ALL PARTIES.

I/WE ACKNOWLEDGE THAT ANY BREACH OF THE FOREGOING PROVISIONS SHALL LEAD AUTOMATICALLY TO THIS TENDER BEING DISQUALIFIED AND MAY LEAD TO CRIMINAL OR CIVIL PROCEEDINGS. THE GOVERNMENT OF MONTSERRAT SHALL TREAT ANY TENDER RECEIVED IN CONFIDENCE BUT RESERVES THE RIGHT TO MAKE THE SAME AVAILABLE TO ANY OTHER FUNDING ORGANISATION OR STATUTORY REGULATORY AUTHORITY EITHER HAVING JURISDICTION OVER THE WORKS OR WHO MAY NOW OR AT ANY TIME IN THE FUTURE HAVE STATUTORY POWER TO REQUIRE DISCLOSURE OF THIS TENDER.

IN THIS CERTIFICATE, THE WORD 'PERSON' INCLUDES ANY PERSONS AND ANY BODY OR ASSOCIATION, INCORPORATED OR UNINCORPORATED; ANY AGREEMENT OR ARRANGEMENT INCLUDES ANY TRANSACTIONS, FORMAL OR INFORMAL AND WHETHER LEGALLY BINDING OR NOT; AND 'THE WORK' MEANS THE WORK IN RELATION TO WHICH THIS TENDER IS MADE.

SIGNATURE………………………………………………. IN CAPACITY OF …………………………………………………

DATE……………………………………………………2015

DULY AUTHORISED TO SIGN TENDERS AND ACKNOWLEDGE THE CONTENTS OF THE ANTI-COLLUSION CERTIFICATE FOR AND ON BEHALF OF:

NAME OF FIRM……………………………………………………………………………………………………………………

FULL POSTAL ADDRESS………………………………………………………………………………………………………………

TELEPHONE NO…………………………. FAX NO …………………………………………