

Clarification Questions and Responses

Project Title: Maintenance of Geothermal Wellheads on Montserrat

Date: 4th March, 2022

Clarification Question	Government of Montserrat(GoM) Response
1. Could you please send us better pictures of the identification wellhead plates and each valve or actuator (in the pictures shown it only can be seen the information partially) ?	Additional photos will be added to the google drive before 1st March, 2022.
2. Part of our team is from Venezuela, are there any particular migration requirements to visit Montserrat from Venezuelan citizens?	Venezuelan citizens require a Visa to enter Montserrat. Please see link to immigration link below: https://www.immigration.ms/
3. Is there availability of surface equipment for the well testing activities (Elbows, pipes, valves, separator, etc. or similar) ?	Yes! However, some maintenance work will have to be done on the separator before use. Images and a video of current condition of the separator has been add to the google drive.
4. Where can we find some information about the reservoir conditions, are there any kind of public papers?	Please see links below: https://pangea.stanford.edu/ERE/pdf/IGAstandard/SGW/2014/Brophy.pdf http://www.gov.ms/wp-content/uploads/2014/04/Well-Completion-Report.pdf
5. It is indicated in the ITT that the flow test for MON 1 and MON 2 must be undertaken for a period of 7 days, is that an indicative period? Is it mandatory? that means 7 days in total, 3 and a half days per each well?	The flow testing required will be for eighty-four (84) hours per well.
5.1 In this same line and regarding the flow test, are you considering this activity 24/7?	Yes, this activity is required for 24/7.
5.2 Could you please tell us the capacity of the water ponds where the flow tests will take place ?	The capacity of the water ponds are 1,000m ³

<p>6. From your previous experience, do you think the wells will flow naturally or will it need some sort of stimulation techniques?</p>	<p>A simulation technique will have to be applied.</p>
<p>7. Do you think there is availability for rental equipment like 10 Tones crane, 10 Kva Diesel Power generator, Diesel compressors, within the island ? and Do you think there are potential machine shops or welding shops available in Montserrat ?</p>	<p>Yes! GoM will provide the compressor indicated in the google drive folder.</p>
<p>8. Do you have some Wellhead spare parts availability within your facilities from previous works ?(Bolts, Gaskets, valves, etc.)</p>	<p>No we do not have any Wellhead spare parts available from previous works.</p>
<p>9. Could you please facilitate us a mechanical diagram of the wells and Wellheads?</p>	<p>This information will be included on the google drive folder by the March 2nd, 2022.</p>
<p>10. How many technicians do you want to train?</p>	<p>Eight (8) persons/technicians to be trained.</p>
<p>11. Is there a facility or similar place where onsite training activities could take place?</p>	<p>No facility is available close to the Wells; tents may have to be employed to facility onsite training. A training room is readily available for theoretical training.</p>

<p>12. Is the tubing in good shape and is the air compressor still operational?</p>	<p>Yes. The Compressor was recently maintained.</p>
<p>13. Is the wireline unit still operational?</p>	<p>The unit has not been use since the conclusion of exploration activities, however, as per the picture added to the google drive, the unit is in good physical condition and is anticipated to be functional.</p>
<p>14. Is all the well test equipment use in previous test and operational?</p>	<p>The units have not been use since the conclusion of exploration activities, however, the units are in good physical condition and is anticipated to be functional.</p>
<p>15. Is there an area to dispose of geothermal fluid?</p>	<p>A 1000m³ holding tank is adjacent to both Wells.</p>
<p>16. What surface installations does the tender document refer to, in section C2, other than the master-valves and side-valves on the wells? Judging from the pictures of MON-1 and MON-2, shared on Google Drive, there is no equipment attached or connected to the wells.</p>	<p>Beside the Wellhead this will include the Separator and connection tubes from the Wellhead to the Separator.</p>

<p>17. Recent additions of photos on Google Drive show the silencer with some of the flow-line components. Is the flow-line throttling valve in working condition or at all present?</p>	<p>This will have to be verified by the consulting firm.</p>
<p>18. If the flow-test equipment shown on the figures (Google Drive) is to be used, a detailed description of the condition and functionality of the equipment must be provided.</p>	<p>This will have to be verified by the consulting firm.</p>
<p>19. Is the Government of Montserrat going to supply the flow-test equipment in approved and safe working condition?</p>	<p>The equipment will be provided in their current condition; the consultant will be required to verify the working condition of these equipment. If the equipment is found not to be in a safe working condition, the consultant would indicate such to the client and make recommendations to address this issue.</p>
<p>20. . If refurbishment or rebuild is necessary and to be included in the bid, it would have to be listed in the tender document as a separate cost-item.</p>	<p>The contractor is required to undertake any necessary repair or replacement of components, that can be locally sourced (available spares or materials), that would be found in need of any essential repair or replacement.</p>
<p>21. If new flow-test equipment must be outsourced, it also must be a separate entity in the tender documents, including all cost.</p>	<p>Any component that needs replacement and cannot be course on island will have to be cost separately.</p>

<p>22. Bidder should safely dispose of liquid/gases coming from the wells “. Which authority would approve or suggest an alternative to bidder’s proposed disposal strategy?</p>	<p>The Department of Environment (email - environment@gov.ms).</p>
<p>23. Is chemical sampling, analysis and interpretation of fluids/steam/gases to be included in the bid?</p>	<p>No not to be included.</p>
<p>24. Are down-hole measurements (P/T) to be done during the flow-test?</p>	<p>Yes this should done during the flow testing.</p>
<p>25. What specialized services could be obtained in Montserrat, including welding-shops, materials suppliers and other providers of specialized metal works, possessing for example large diameter metal lathe?</p>	<p>Materials Suppliers, Welders and a Welding shop is available, however there is limited specialized metal works.</p>
<p>26. What lifting/crane services are available on the island?</p>	<p>A 10 ton crane is available and can be rented from Montserrat Port Authority (Port Manager - joseph.ogarro@mpa.ms)</p>

<p>27. Has the Government of Montserrat contracted (or tendered out) a supervisory entity to act as the owners representative during the maintenance and flow-test procedure?</p>	<p>No!</p>
<p>28. According to the ToR, bidders shall deliver a maintenance manual as a part of their proposal to be estimated (scored). In our view, writing the manual should be an objective within the scope of work.</p>	<p>Noted.</p>
<p>29. a) Do you have that valve? we think it's a 12" valve or so but we don't see it on the google drive separator and spare parts folder. If so, could you please confirm us the following;</p> <p>it's current status</p> <p>Is there a second valve available?</p>	<p>Yes, we have that valve.</p> <p>Some level of maintenance will have to be done to the 12" valve, a recent picture of this valve has been add to the google drive.</p> <p>No second value available.</p>
<p>29. b) Do you have a similar lighting equipment available?</p>	<p>No, however it can be rented from the Montserrat Port Authority (Port Manager - joseph.ogarro@mpa.ms).</p>
<p>30. Would it be possible to extend the well testing process from 84 hours to 7 days per well ?, from a geological point of view it will give time the well to stabilize, is it possible ?</p>	<p>Provide a separate cost for extending the testing process beyond the duration proposed in the RFP.</p>
<p>31. Could you please tell us whether the three wells have pressure? could you please send us a picture per well and the respective measurements (pressure)</p>	<p>No, we are unable to determine this.</p>

<p>32. Do you have a diesel generator (10 Kva or so) available ?</p>	<p>No. However, this can be rented locally.</p>
<p>33. Do you have a crane of 10 tones, or so , available ?</p>	<p>No, however it can be rented from the Montserrat Port Authority (Port Manager - joseph.ogarro@mpa.ms).</p>
<p>34. Do you have a welding machine available?</p>	<p>Yes we have a welding machine.</p>
<p>35. Do you have small tank of fresh water available (it is for a tightness test and cleaning tools).</p>	<p>No, but assistant can be given to source one.</p>
<p>36. From the previous well testing, could you please tell us the following measures; pressure, flow, enthalpy and pressure and temperature profiling logs.</p>	<p>Please see link below: https://pangea.stanford.edu/ERE/pdf/IGAstandard/SGW/2014/Brophy.pdf</p>

<p>37. Will the Harbour crane or another crane capable of assisting the rig up and equipment moving be available for our use.</p>	<p>A 10 ton crane is available and can be rented from Montserrat Port Authority (Port Manager - joseph.ogarro@mpa.ms)</p>
<p>38. Is there truck and trailer available for moving the equipment from one well to another.</p>	<p>Yes</p>
<p>39. Will the trainees be able to assist in the rig up and testing? It would mean we do not have to bring so many people to site as well as it would be good training for them.</p>	<p>Yes</p>
<p>40. IF these services are available will the Government of Montserrat pay them directly rather than have us pay them and adding on an overhead charge?</p>	<p>We would like for this cost to be included in your proposal.</p>