

# **Regarding appointment of consultant for “Assessment of Rare Earth Elements (REE) and Total Heavy Mineral (THM) Potential of Gujarat” for Gujarat Mineral Research & Development Society (GMRDS), Gujarat**

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## **Background**

Gujarat Mineral Research and Development Society (GMRDS) was constituted under Societies Registration Act 1860 and Charitable Trust Act 1950 and was registered at the District Registrar’s Office, Gandhinagar and Assistant Charity Commissioner Office, Gandhinagar respectively. GMRDS was formed in the year 2002 to support the mineral industries and to provide the technical support for mineral administration under the control of Commissioner of Geology & Mining/Industry and Mines. The main tasks of GMRDS are to undertake research and development in the field of mineral analysis & testing of ores, rocks & mineral samples submitted by the Commissioner of Geology & Mining, public sector undertakings, private sector mineral industries, research institutions, laboratories etc. so as to assess quality of ores & minerals by chemical, physical testing and instrumental analysis.

Gujarat is blessed with various mineral resources with presence of energy, metallic and industrial minerals. The State is endowed with 34 major and minor minerals. In addition, Gujarat is also endowed with resources of heavy minerals (Beach Sand Minerals) which occur mainly along coastal stretches of the State and also in inland placers. Rare Earth elements are used as components in high technology devices, including smart phones, digital cameras, computer hard disks, fluorescent and light-emitting-diode (LED) lights, flat screen televisions, computer monitors, and electronic displays. Large quantities of some REEs are used in clean energy and defense technologies.

Gujarat's geology provides significant opportunities for exploration of rare earth mineral deposits in different geological milieus. Commissioner of Geology and Mining (CGM), Gujarat intends to carry out a comprehensive assessment of REE and THM potential in the state of Gujarat. As per IBM, “Rare Earth Elements” or “REE” are a collection of 17 elements namely scandium, yttrium and lanthanides (15 elements in the periodic table with atomic numbers 57 to 71 namely; lanthanum (La), cerium (Ce), praseodymium (Pr), neodymium (Nd), promethium (Pm), samarium (Sm), europium (Eu), gadolinium (Gd), terbium (Tb), dysprosium (Dy), holmium (Ho), erbium (Er), thulium (Tm), ytterbium (Yb) and lutetium (Lu). As per Atomic Minerals Concession Rules, 2016 “Total Heavy Mineral” or “THM” means the minerals which comprises of Ilmenite, Rutile, Zircon, Monazite, Sillimanite, Leucoxene and Garnet.

In this context, GMRDS intends to select a consultant who shall undertake a comprehensive assessment of the exploration and resource potential of REE and THM in the state of Gujarat.

## Scope of Work

The objective of GMRDS from this assignment is to establish REE and THM potential in the state of Gujarat from coastal, placer and rock based resources and prepare a road map for exploration and establishing reserves of REE and THM. In order to achieve these objectives, Consultant shall undertake following activities and any other incidental study as may be required:

1. Study of geology, morphology, mineralization, surface features etc. of Gujarat based on the information existing with CGM and any other government agency. Consultant will source all such information from CGM, IBM, GSI, MECL, AMD etc.
2. Collation of geological and mineralisation information from public domain and government sources and any other data source, related to REE and THM mineralisation in Gujarat. This task would also involve collating information from CGM's geological archives and from the archives of Central Government agencies (GSI, AMD, MECL, etc.) on behalf of CGM, Gujarat.
3. Based on the studies, identify potential REE and THM bearing areas and areas with geological resources potential for REE and THM.
4. Assessment of REE and THM potential resources from various sources (sand, rock etc.) and identify target areas where REE and THM potential may be established.
5. Prepare a roadmap for exploration of identified areas including delineating potential area for exploration, prepare exploration programme, exploration strategy and way forward to discover REE and THM deposits in Gujarat. This would also include the assessment of the exploration mandate of the state and central agencies and advice the GMRDS with respect to REE and THM exploration in the state.
6. Development of a comprehensive report on “Assessment of Rare Earth Elements (REE) and Total Heavy Mineral (THM) Potential of Gujarat” and presentation of the finding to the GMRDS.

## Timelines

S. No.	Particular	Timelines (from start)
1	Draft report on “Assessment of Rare Earth Elements (REE) and Total Heavy Mineral (THM) Potential of Gujarat”	8 weeks
2	Final report on “Assessment of Rare Earth Elements (REE) and Total Heavy Mineral (THM) Potential of Gujarat”	10 weeks

## Proposal Submission

The interested bidders should submit their proposal in two envelopes as defined below:

### Envelope 1: Technical Presentation

This would contain a technical presentation (maximum 20 slides) highlighting the following:

- Details of the bidder with contacts
- Experience of the bidder in similar work
- Understanding of REE and THM in India and in Gujarat
- Approach and methodology of the bidder for the assignment
- Profiles of the experts including geologists to be deployed for the assignment

### Envelope 2: Price Proposal

The lump sum price offer of the bidder (non-conditional) inclusive of all expenses for completion of the scope of services. GST, as applicable, shall be paid separately.

Both the envelopes shall be put together in a separate envelope and titled name of the project, name of the bidder and should be submitted to the below address by 5:00 PM on 06<sup>th</sup> July, 2018.

*Director Technical*  
*Gujarat Mineral Research & Development Society, Govt. of Gujarat*  
*Block No 1, 7th Floor, Udyog Bhavan, Gandhinagar - 382001*

## Selection process

The bidders shall make a presentation to the GMRDS of the Technical Presentation submitted. No changes shall be made in the Technical Presentation submitted along with the proposal and the presentation being made to the GMRDS. GMRDS shall provide a technical score (out of 100) to the bidders based on the presentation made.

The selection of successful bidder shall be made on QCBS (quality cum cost based basis) with a proportion of 70% to the Technical Presentation score and 30% to the Price Proposal submitted.

## Payment Terms & Condition:

The payment shall be released to the bidder in the following manner: 60% on submission of draft report and 40% on submission and acceptance of final report and presentation to GMRDS.

## Penalty:

The penalty shall be deducted from the eligible payment as mentioned below.

Sr.	Parameter	SLA	Penalty
1	Delay in Submission of Deliverable Documents	The consulting firm shall prepare and deliver the desired Deliverable as mentioned in List of Deliverables in the stipulated time lines.	Penalty charges @2% per week delay capped at 10% of the total fee.

- If the total delay is beyond 5 weeks, then the GMRDS may terminate the Contract without paying the outstanding payment.
- The time taken by department for approval or consent will not be considered in project time line for key deliverables.
- If GMRDS fails to provide details/data/documents to carry out the job as per the agreement terms, as a result of which the rendering of services are delayed and the selected agency is not able to adhere to the schedule for completing the defined work/ service, then such delay, solely on account on above, will not be accounted while ascertaining actual delay.