**INVITATION FOR**

**EXPRESSION OF INTEREST**

**(EOI)**

**FROM INTERESTED PARTIES**

**FOR**

**SETTING UP OF CENTER OF EXCELLENCE (COE) FOR RARE EARTH ELEMENTS (REE) AT UDAIPUR IN THE STATE OF RAJASTHAN**



**DEPARTMENT OF MINES & PETROLEUM,**

**GOVERNMENT OF RAJASTHAN**

**DIRECTORATE OF MINES & GEOLOGY,**

**KHANIJ BHAWAN, SHASTRI CIRCLE, UDAIPUR**

Table of Contents

[1. Introduction 3](#_Toc179556620)

[2. Details of Expression of Interest (EOI) 4](#_Toc179556621)

[2.1 Objective 4](#_Toc179556622)

[3. Scope of Work 5](#_Toc179556623)

[4. Eligibility Criteria and Selection Process 5](#_Toc179556624)

[5. Information Required 5](#_Toc179556625)

[6. General Terms & Conditions 6](#_Toc179556626)

[7. Schedule of Events 7](#_Toc179556627)

[8. Submission of Expression of Interest (EOI): 7](#_Toc179556628)

[Document Checklist 8](#_Toc179556629)

[Annexure 1 9](#_Toc179556630)

[Annexure 2 10](#_Toc179556631)

[Annexure A 11](#_Toc179556632)

[Annexure B 12](#_Toc179556633)

[Annexure C 13](#_Toc179556634)

[Annexure D 14](#_Toc179556635)

[Annexure E 15](#_Toc179556636)

[Annexure F 16](#_Toc179556637)

# Introduction

As per the budget announcement, 2024-25 for Research and Development in the field of REE, a Centre of Excellence is proposed to be established in Udaipur, Rajasthan. The state has immense potential of REE i.e., Bastnasite, Parasite, Cebaite, Cerianite, Thorianite, Carbocernaite, Ancylite, Strontianite, Brittolite, Synchisiste and Xenotime etc. These are belonging to HREE, which are very important for India's economic growth.

Rare earth minerals are the foundation on which modern technology is built. These minerals that are essential for economic development and national security. The future globe depends on these essential minerals for advancement of many sectors, including high-tech electronics, telecommunications, medical instruments, defense, solar panels, semiconductors, wind turbines, advanced batteries for transportation etc. There is no energy transition without critical minerals to build these products.

India future economic prosperity will depend on how well we can use our vast energy and mineral resources to ply to our strengths and how well we can adopt to follow the global market shift towards zero emission.

Discovery of REE in India, (mineral wealth) and identifying areas of its potential by advance technologies is essential. These minerals will help the country to plan for the acquisition and preservation of such mineral assets considering the long-term need of the country and reduce the import dependency.

Govt. of India, Ministry of Mines, 2023 highlights the strategic importance of these minerals but also emphasizes the crucial role play in achieving sustainable development of the country.

India's focus on clean energy and lower emissions has further amplified the significance of critical minerals, from electric vehicles to renewable energy systems, these minerals play a pivotal role in accelerating the transition towards a greener and more sustainable future. These minerals are essential for development and national security.

The future economy of the country will be underpinned by technologies that depend on minerals such as lithium, graphite, cobalt, monazite, titanium & other Rare Earth Elements. These are essential for the advancement of various sectors including hi-tech electronics, tele-communication, transport, defense, power generation, low carbon emission etc.

The potential of critical minerals is essential to fuel the country's growth, competitiveness, and sustainable development. By developing a comprehensive understanding of India's critical mineral resources, this work empowers policymakers, researchers, and industry stakeholders to make decisions and drive the clean energy revolution.

India requires a comprehensive REE program encompassing REE exploration (both LREEs and HREEs), REE magnet manufacturing, and all intermediate steps. This includes developing laboratory and pilot facilities for REE ore beneficiation, hydrometallurgy for individual REE separation, metal, alloy production, strong magnet manufacturing, re-cycle plant.

To streamline the objective, it is essential to establish laboratory and pilot-scale facilities like CSSIR, IMMT and NML, leveraging the expertise available in institutes such as IREL, DMRL, NFTDC, and IITs, particularly for the metallurgy study.

# Details of Expression of Interest (EoI)

## Objective

There is a need for Research and Development of rare metal in the state, therefore an institution such as Centre of Excellence is required to establish comprising scientific infrastructure with high-tech analytical instrument and pilot plant for beneficiation study & metallurgical study.

* Centre of Excellence is to be comprised with expertise & infrastructure through its constituent laboratory focusing on Mining, Minerals, Metals & Materials.
* Centre of Excellence will provide mineral processing from primary resources, extraction of rare mixed compounds via pyro-hydrometallurgical process.
* The centre may also focus on various stages for the separation of REE's. Recovery of Rare Earth Elements from primary as well as secondary resources. Separation of REEs through Gravity, Electric, Magnetic, Froth floating, Solvent extraction, Leaching, Precipitation, Dewatering and Purification.
* The centre will also focus on requisite expertise to deliver specialized training contributing to human resource development and is equipped with facilities for lab-to-pilot scale testing in minerals processing and extractive metallurgy.
* Requisite expertise to deliver specialized training contributing to human resource development and is equipped with facilities for lab-to-pilot scale testing in minerals processing and extractive metallurgy.
* The centre will focus on setting up a pilot plant to recover REE's from primary & secondary resource.
* To collaborate with exploration agencies for exploration & extraction of critical minerals including Rare Earth Element by identifying resources & assessing their feasibility.
* The centre will facilitate to collaborate with exploration agencies for exploration & extraction of critical minerals including Rare Earth Element by identifying resources & assessing their feasibility.
* The centre will also initiate critical mineral mission "Mapping & Tapping" and "Batteries to Batteries" to focus on identifying & utilizing a primary & secondary resource.
* Hence it has become imperative to identify and develop value chains for the minerals which are critical to our country.

# Scope of Work

A Centre of Excellence (CoE) for REE is a specialised facility dedicated to advancing the science, technology, and application of REE. These centers typically focus on research, development, education and innovation within the field of REE. Here are some key aspects of a CoE for REE:

1. Research and Development: Conduct cutting-edge research on REE, including their properties, manufacturing processes, and potential applications. This can involve both fundamental science and applied research.
2. Innovation and Technology Transfer: Develop new technologies and processes and facilitate their transfer to industry. This helps in creating new products, improving existing ones, and enhancing manufacturing techniques.
3. Testing and Analysis: Offer advanced testing and analysis services to evaluate the performance, quality, and reliability of REE based materials. This includes mechanical, thermal, chemical, and other types of testing.

# Eligibility Criteria and Selection Process

**Eligibility Criteria:**

All Central Government, State Government and Corporates from Research and Development Institutes, Universities, and Industrial Associations, which are having prior experience of working or currently working in the field of Rare Earth Elements.

**Selection Process:**

The Interested Parties based on their response to “Expression of Interest (EOI)” may be shortlisted for next round of participation for which the detailed Request for Proposal (RFP) will be released by DMG Rajasthan separately for further participation and final selection.

* Initial Round of Shortlisting: - Grading/ Scoring/ Ranking Methodology
* Final Round of Shortlisting: - Grading/ Scoring/ Ranking Methodology

# Information Required

1. Documents pertaining to financial strength of the organization submitting EOI are required. For e.g., audited financial statements - Balance Sheet, Profit & Loss statement, and Cash flow statement of last three financial years etc.
2. Document supporting the other technical capabilities of the organization submitting EOI are required. For e.g., details of any REE-related patents or proprietary technologies held by the organization, and experience of the team and personnel in the REE sector.
3. In case of a new entity submitting the EOI, financial strength of promoters and consortium partner is required to be established. **(Annexure A)**
4. Comprehensive account of past or ongoing projects in REE or similar fields. **(Annexure B)**.
5. Financial details such as expected total capital investment, time frame for commissioning and infrastructure requirement for the proposed project. **(Annexure C)**
6. Proposed team structure for the proposed CoE. **(Annexure D)**
7. List of laboratory instruments and their estimated cost for the proposed CoE. **(Annexure E)**
8. Infrastructure requirements with estimated cost for the proposed project. **(Annexure F)**

# General Terms & Conditions

1. DMG Rajasthan reserves the right to change the scope or foreclose the EOI without short listing of any agreement at any time, without giving any reason thereof.
2. The issue of this document does not in any way commit or otherwise oblige DMG Rajasthan to proceed with all or any part of the EOI & further process associated with it.
3. The EOI request is not the subject of any process contract or any contractual obligations between DMG Rajasthan and Proponents or potential proponents.
4. DMG Rajasthan may, at its absolute discretion, decide to abandon any part or whole of the process without giving prior notice to the Proponents or potential Proponents.
5. DMG Rajasthan reserves the right to short- list proposal by way of evaluation Criteria determined internally in alignment with its strategic needs.
6. DMG Rajasthan reserves the right to ask the interested parties to furnish other details/ documents related to the company/ proposed project.
7. The party submitting the EOI shall be bearing all costs associated with the preparation and submission of the EOI and DMG Rajasthan will, in no case be responsible or liable for these costs, regardless of the conduct or outcome of the assessment/ evaluation process.
8. The total cost of Establishment of Centre of Excellence with capacity building, instrumentation, beneficiation & pilot plants etc. up to final stage is to be bear by EoI holders.

# Schedule of Events

|  |  |  |
| --- | --- | --- |
|  **S. No.** | **Event** | **Date** |
| 1. | Publication of Expression of Interest (EOI) | 30.11.2024 |
| 2. | Pre-Bid Meeting for Query Resolution | 13.12.2024 |
| 3. | Last date and time for submission of EOI | 18.12.2024 |
| 4. | Opening of EOI documents | 24.12.2024 |
| 5.  | Approval of Successful Bidder | 31.12.2024 |

# Submission of Expression of Interest (EOI):

Interested parties are required to submit all required documents complete in all respects with one original and one authenticated copy for each in hard copy format through the registered post or hand delivered to the below address:

Directorate Of Mines & Geology,

Khanij Bhawan, Shastri Circle, Udaipur

------------------------------------------------- End of Document ------------------------------------------

# Document Checklist

|  |  |
| --- | --- |
| Annexure 1 | Expression of Interest Letter |[ ]
| Annexure 2 | Company details |[ ]
| Annexure A | Financial strength of promoters and consortium partner (for new entity) |[ ]
| Annexure B | Experience details |[ ]
| Annexure C | Proposed Financial details for the project |[ ]
| Annexure D | Proposed team and personnel details |[ ]
| Annexure E | List of laboratory instruments |[ ]
| Annexure F | Tentative cost/ expenditure |[ ]
| Financial Documents | Balance Sheet, Profit and Loss Statement, Cash flow statement |[ ]
| Technical Documents | Experience of the in REE sector, Intellectual Property (IP) and Patents, Relevant Cases Studies |[ ]

# Annexure 1

Standard Format for Expression of Interest

(Company’s Letter Head)

Directorate Of Mines & Geology,

Khanij Bhawan, Shastri Circle, Udaipur

Email:

**Sub:** - Setting up of Center of Excellence (CoE) for Rare Earth Elements (REE) at Udaipur in the State of Rajasthan

Dear Sir,

In response to your public advertisement in (Insert the names of the newspaper and/or website) on (Insert date of the advertisement) inviting Expression of Interest (EOI) for Setting up of Center of Excellence (CoE) for Rare Earth Elements (REE) at Udaipur in the State of Rajasthan, we hereby submit our EOI.

We have also attached information according to the standard form as per Annexure. The information furnished by us in this EOI is true, correct and accurate to the best of our knowledge.

Sincerely yours,

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature of Authorized Signatory (with official seal)

Name:

Designation:

Address:

Telephone/Mobile No.:

E-mail address:

# Annexure 2

**Company Details**

(On Company’s Letter Head)

* + - 1. **Name and address**
				1. Name of the Firm/Company/Organization:
				2. Corporate Address:
				3. Registered Address:
				4. Contact No:
				5. Website:
			2. **Key Contact Person:**
				1. Name:
				2. Designation:
				3. Contact No./ Mobile No.:
				4. Email:
			3. **Company Profile:**
				1. Date of incorporation:
				2. CIN No:
				3. GST No.:
				4. PAN No.:
				5. Shareholding Pattern:

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Signature of Authorized Signatory (with official seal)

Name:

Designation:

Address:

Telephone/ Mobile No.:

E-mail address:

# Annexure A

**Financial strength of promoters and consortium partner (for new entity)**

(On Company’s Letter Head)

Date: DD/MM/YYYY

To,

Directorate Of Mines & Geology,

Khanij Bhawan, Shastri Circle, Udaipur

Email:

Dear Sir,

Consortium Details:

|  |  |
| --- | --- |
| Total no. of partners in the Consortium proposed  |  |
| Name and address of Consortium Partner 1  |   |
| Scope of work of the Consortium Partner 1  |   |
| Name and address of Consortium Partner 2  |   |
| Scope of work of the Consortium Partner 2  |   |

The Net worth and the Turnover of the interested party for last three financial year as per audited statement is as under:

|  |  |  |
| --- | --- | --- |
| **Financial year**  | **Net worth (INR Crore)**  | **Turnover (INR Crore)**  |
|   |   |   |
|   |   |   |
|   |   |   |

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Signature of Authorized Signatory (with official seal)

Name:

Designation:

Address:

Telephone/ Mobile No.:

E-mail address:

# Annexure B

**Format for providing comprehensive account of past or ongoing projects in REE or similar fields**

(On Company’s Letter Head)

|  |  |  |
| --- | --- | --- |
| **Sr No**  | **Particulars**  | **Details**  |
| 1  | Name of the major project/ projects  |  |
| 2  | Client Details  |  |
| 3  | Project/Projects Details  |  |
| 4   | Work ongoing/ completed in last 5 years  |  |
| 5  | Total Net worth of the Project/ Projects |  |
| 6  | Any other relevant information |  |

Note: Copy of the Work Orders/Completion certificates to be enclosed

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Signature of Authorized Signatory (with official seal)

Name:

Designation:

Address:

Telephone/ Mobile No.:

E-mail address:

# Annexure C

**Format for providing company’s financial details such as expected total capital investment, time frame for commissioning and infrastructure requirement for the proposed project.**

(On Company’s Letter Head)

|  |  |  |
| --- | --- | --- |
| **S. No.** | **Proposed Project Detail** | **Response** |
|
| 1  | Total Capital Investment(INR Crore) |   |
| 2  | Time frame to start project |   |
| 3  | Proposed timeline with milestones and deliverables |   |
| 4  | Infrastructure Requirements of project and their expected commissioning dates |   |

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Signature of Authorized Signatory (with official seal)

Name:

Designation:

Address:

Telephone/ Mobile No.:

E-mail address:

# Annexure D

**Format for providing company’s proposed team and personnel details for the proposed project.**

(On Company’s Letter Head)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No.**  | **Resource to be deployed** | **Domain of Experience** | **Year of Exp** | **Number of Post** |
| 1  |  |   |  |  |
| 2  |  |   |  |  |
| 3  |  |   |  |  |
| 4  |  |   |  |  |

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature of Authorized Signatory (with official seal)

Name:

Designation:

Address:

Telephone/ Mobile No.:

E-mail address:

# Annexure E

**Format for providing company’s proposed** **list of laboratory instruments for the proposed project.**

(On Company’s Letter Head)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No.**  | **Instrument**  | **Justification / Purpose of****Requirement** | **No of Instrument** | **Approx Cost** |
| 1  |  |   |  |  |
| 2  |  |   |  |  |
| 3  |  |   |  |  |
| 4  |  |   |  |  |

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature of Authorized Signatory (with official seal)

Name:

Designation:

Address:

Telephone/ Mobile No.:

E-mail address:

# Annexure F

**Format for providing company’s** **tentative cost/expenditure for the proposed project.**

(On Company’s Letter Head)

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.**  | **Particulars** | **Details** | **Approx Cost** |
| A | Phase I |  |   |
| 1 | Land Area & Land Cost |  |   |
| B | Phase II |  |   |
| 1 | Building Infrastructure with Laboratory, Conference Hall, Training Hostel, Staff Quarters, Faculty/Officers Quarter, Technology Block, Boundary Wall of land etc |  |  |
| C | Phase III |  |  |
| 1 | Instrumentation Cost with accessories and installation Solar Power Plant, Water Supply, Power Generation Plant, Central AC Plant, Chiller Plant, Water Harvesting System, Campus Road etc. |  |  |
| 2 | Vehicles for field and R&D work |  |  |
|  | **Total (Estimated Cost)** |  |  |

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Signature of Authorized Signatory (with official seal)

Name:

Designation:

Address:

Telephone/ Mobile No.:

E-mail address: