



सेन्टर फॉर मेटिरियल्स फॉर इलेक्टॉनिक्स टेक्नोलाजी (सी-मेट)  
**CENTRE FOR MATERIALS FOR ELECTRONICS TECHNOLOGY (C-MET)**  
(Scientific Society, Ministry of Electronics and Information Technology (MeitY), Govt. of India)  
IDA PHASE – III, CHERLAPALLY, HCL (PO), HYDERABAD – 500 051  
Phone: +91-40-27265587, 27267006, 27261658 Web: www.cmet.gov.in

Advt. No. : HD/PUR/SP-48/EoI/02/2023-24

**INVITATION FOR EXPRESSION OF INTEREST**

C-MET invites Expression of interest from eligible parties for the understated work

Sl. No.	Name of the work
1	Appointment of consultancy firm for Establishment of process facilities for pilot scale preparation of Rare Earth metals and alloys

The EOI Document can be downloaded from the CPP Portal and C-MET website: [www.cmet.gov.in](http://www.cmet.gov.in).

**Last date for receipt of EoI: 25.10.2023 UPTO 17:00 Hrs.**

Sd/-  
DIRECTOR

**INVITATION**  
**FOR**  
**EXPRESSION OF INTEREST**

FOR:

**Appointment of consultancy firm for**  
**Establishment of process facilities for pilot**  
**scale preparation of Rare Earth metals and**  
**alloys**

**RESPONSE FORM**

**LAST DATE FOR SUBMISSION: 25.10.2023 UPTO 17:00 Hrs.**

## **1. INTRODUCTION:**

Centre for Materials for Electronics Technology (C-MET) Hyderabad laboratory is establishing process facilities for pilot scale preparation of Rare Earth metals and alloys, called “RE metals” in short. The prime objective of this project is to develop the process methodology for the preparation of high purity rare earth metals from indigenous/secondary rare earth sources, establishment of process facilities for the pilot scale preparation of RE metals and alloys. The duration of the project is 3 years. C-MET Hyderabad has got its expertise on extractive metallurgy of various metals including Ta, Nb and Hf from their corresponding ore concentrates or process effluents. All these metals are being produced by metallothermic reduction techniques. C-MET, Hyderabad Laboratory has evolved as a unique facility for refractory metals extraction, ultra-high pure materials, recycling of EoL Rare earth metal alloys to extract rare earth elements using hydrometallurgical and pyro metallurgical routes.

CMET is interested in identifying a consultancy firm for the duration of the Project to provide their consultancy services. The consultancy firm is expected possess experience both in the field of chemical engineering unit operations and also powder metallurgy operations, preferably with expertise in rare earth/refractory/reactive metals processes like:

- Solvent extraction
- Metallothermic reduction
- Powder processing
- Alloy and magnet preparation
- Characterization

## **2. OBJECTIVE OF THE EOI:**

This EOI is meant for inviting the interested parties to submit their applications for undertaking the aforesaid assignment. Based on the submissions received from the interested parties, most suitable party, who is capable of handling the assignment, will be chosen.

## **3. SCOPE OF WORK:**

Scope of the work include consultancy and advisory services in creating the required infrastructure including layout and construction of building for the total process plants, utilities like power, water, gases, piping, safety details, exhaust, ETP, etc. The scope of the project also include consultancy and advisory services in design, procurement, installation and commissioning of process equipment and trial runs followed by demonstration of the pilot scale production capacity to targeted specifications of C-MET.

## **Background:**

Rare earth products find various applications in strategic sector as well as in commercial sector. They are extensively used in certain high-technology sectors. The rare earths were initially used in gas mantles and flints, but later they became popular as catalyst for petroleum cracking which involves use of unrefined mixed rare earth compounds. This was followed by their use in glass industry for coloring and polishing. With progression in time other uses such as neodymium and yttrium oxide in lasers, high-temperature ceramic and heavy rare earths as phosphors for TV screens and fluorescent lamps. The finding of superconductivity at liquid nitrogen temperatures in  $\text{YBa}_2\text{Cu}_3\text{O}_7$  revolutionized the high technology area. This is being used to fabricate tapes and wires that serve at liquid  $\text{N}_2$  temperature. This has also miniaturized components, which increased energy efficiency and energy storage in superconducting magnets. Mixed rare earth misch metal was used as alloying additives in steel, as nodularizing element in spheroidal graphite cast iron, etc.

A pilot plant is being set up by C-MET for meeting the project objectives. The proposed pilot plant will include establishment of process facilities, required civil and electrical infrastructure like detailed plant layout; building for different process plants; electrical installations, cabling, transformer; piping for utilities like water, gases, air, scrubber and exhaust systems; drainage system; effluent treatment facilities; safety systems for prevention and control of fire and chemical hazards; etc.

## **Scope of the present work to be provided the by selected consultancy firm relates to the setting up of the pilot plant which includes:**

- 1) Providing consultancy and advice on different aspects of the setting up of the pilot plant
- 2) Preparation of detailed project report, Infrastructure report, critical design review, detailed design report etc required for the plant
- 3) Drafting and Vetting of the specifications
- 4) Drafting of the requisite Tender documents/EoIs
- 5) Scaling up of the process based on the data obtained from trial runs
- 6) Overseeing the implementation of setting up of the facilities
- 7) Overseeing the construction of the building being built for this purpose
- 8) Material selection and designing of process equipment, utilities etc.
- 9) Statutory clearances like environmental and pollution control, clearance from GHMC, electricity board
- 10) Participation in discussions with different vendors for setting up the plant
- 11) Inspection of systems, installation and commissioning of systems, demonstration of the capabilities of the systems
- 12) Overseeing the demonstration of the equipment
- 13) Advising C-MET on integration of the plant till the completion of the project.

**All the above consultancy services are required to be provided in the following areas:**

**DESIGNING, PROCUREMENT, COMMISSIONING OF INFRASTRUCTURE, BUILDING, PROCESS EQUIPMENT, UTILITIES, SAFETY, EXHAUST, ETP, ETC., DEMONSTRATION OF THE PRODUCTION CAPACITY AND LIAISON WITH GOVT. DEPARTMENTS.**

#### **4. Selection criteria and Process:**

##### **A. Selection Criteria:**

- Consultancy firm should have more than 2 decades of experience both in the field of chemical engineering unit operations and powder metallurgy operations preferably expertise in rare earth/refractory/reactive metals processes
- The firm should have experience in providing similar consultancy services at least for three projects of similar scale of operation
- The firm should have experts in the relevant fields who have at least 10 years of experience in providing consultancy services either on their permanent rolls or on need-base visits
- The firm should have a branch office at Hyderabad for providing effective and prompt services

##### **B. Selection Process:**

The documents submitted by the applicants in response to the invitation for EOI shall be examined by an expert committee to be constituted by CMET. The committee shall shortlist the applicants based on the eligibility criteria.

The parties who are shortlisted by the expert committee will be invited by C-MET for a pre-bid presentation on technical data related to the process, design, control, mechanical, civil and electrical details for submitting the preliminary project report. Such parties are required to sign a Non-Disclosure Agreement prior to the pre-bid meet.

Parties should submit the plan of execution of the project within 15 days from the date of pre-bid discussions. The shortlisted parties can then submit the tender in 2-parts (1) the project report and (2) financial bids separately.

**The firm which quotes the lowest will be chosen.**

**Access to study the features of RE metal Project and further details shall be given to the shortlisted parties, only after they sign the Non-Disclosure Agreement.**

## **5. GUARANTEE CLAUSE**

- a) The tenderer has to give undertaking for timely completion of different activities so as to complete the establishment of the plant within the period of 12 months. Proposed activity chart along with time frame should be submitted by the bidder which will be the yard stick for monitoring the compliance.
- b) The tenderer has to guarantee functioning of the systems to indented specifications.

## **6. SECRECY**

The technical information, drawings, specifications and other related documents forming part of the tender are the property of C-MET and shall not be used for any other purpose except for the submission of the offer. The technical information, drawings, specifications, records and other documents shall not be copied, transcribed, traced, or reproduced in any other form or otherwise in whole and/or duplicated, modified, divulged and/or disclosed to third party nor used in any other form whatsoever without C-MET's consent in writing except to the extent required for the submission of offer.

## **7. SHORTLISTING OF APPLICANTS:**

Consultancy firm desirous of tendering for above works and fulfilling the following requirements shall be eligible (technical bid specification)

Consultancy firm should have successfully completed similar works or it should have technical experts possessing the Qualification and experience as specified in the EOI who have completed the following:

Three similar completed works costing not less than Rs. 30.00 Lakhs each.

(OR)

Two similar completed works costing not less than Rs. 45.00 Lakhs each.

(OR)

One similar completed work costing not less than Rs. 70.00 Lakhs.

Average annual financial turnover of the firm along with its associates (from consultancy services) during the last three FY 2020-21, 2021-22, and 2022-23 should be at least Rs.100.00 lakhs supported with appropriate proof/certificate.

3. Consultancy firm shall submit copy of self-attested satisfactory performance and timely completion certificate in respect of the above works.

4. They must be having adequate organizational setup and reasonable presence in the work area or nearby and have sufficient number of experienced personnel, technical know-how, and infrastructure.

5. The experts on the rolls of the firm should be Graduates or Post Graduates in Engineering/Material Sciences from India or abroad with an experience of not less than 10 years in their respective area of expertise.

**8. DOCUMENTS TO BE SUBMITTED:**

- Draft letter for EoI submission on the letter head of the firm/applicant – Annexure I
- Profile of the Party– Annexure II
- Details of the skilled personnel of the party who will handle the assignment (one form for each) – Annexure III
- Information regarding any conflicting activities and declaration thereof – Annexure IV
- Details of similar works carried out in the past 10 years - – Annexure V
- Details of procedures being followed by the party in similar previous assignments - Annexure - VI
- Pre-qualification criteria on the letter head of the firm/applicant - Annexure – VII

**9. SUBMISSION OF EOI:**

- a. All the requisite documents shall be placed in a sealed enveloped which shall be superscribed “**Expression of Interest – Appointment of consultancy firm**”
  - b. The sealed enveloped shall be submitted to Director, C-MET, IDA Phase-III, Chelapally, Hyderabad – 500 051
  - c. The last date for submission is: 21 days from the date publication in News Paper.
1. The party shall bear all costs associated with the preparation of their proposals and C-MET shall not pay or reimburse any expenses in this regard. C-MET is not bound to accept any proposal and reserves the right to cancel the selection process at any time without any liability accruing to it.
  2. C-MET reserves the right to accept or reject any or all proposals without assigning any reasons whatsoever and its decision shall be final and binding on all the applicants.
  3. **PRICE BIDS ARE NOT TO BE SUBMITTED AT THIS STAGE. ONLY THE PARTIES SHORTLISTED BY THE EXPERT COMMITTEE SHALL BE REQUIRED TO SUBMIT THE PRICE BIDS AFTER THE PRE-BID MEET. IF PRICE BIDS ARE SUBMITTED ALONG WITH THE EOI, SUCH APPLICATIONS ARE LIABLE TO BE REJECTED.**

**DIRECTOR  
C-MET, HYDERABAD**

**ANNEXURE – I**

**DRAFT LETTER FOR EOI SUBMISSION TO BE SUBMITTED ON THE LETTER  
HEAD OF THE FIRM/APPLICANT**

Ref: No.

Date:

The Director  
C-MET  
IDA Cherlapally, Phase - III  
Hyderabad – 500 051

Dear Sir

We, the undersigned, offer to provide the services as required in your invitation for EOI dated:\_\_\_\_\_. We are hereby submitting our proposal with all the requisite information and documents.

We hereby certify that all the information and statements made in this proposal are true and accept that any misstatement or misrepresentation in the enclosed documents may lead to our disqualification.

We understand that you are not bound to accept/reject any proposal without assigning any reason.

Yours faithfully

Authorised Signatory  
NAME & DESIGNATION



**ANNEXURE - II**

**Profile of the Party**

Name of the party			
Year of Registration			
Registered Office address			
Legal status			
Number of employees			
No. of branches, if any			
Turnover (Rs. lakhs)	2022-23	2021-22	2020-21

\* Supported by the audited statement of accounts. For 2022-23, a provisional certificate duly signed by an authorized signatory is acceptable

.....

(Signature with date)

.....

(Name and designation)

Duly authorized to sign EOI for and on behalf of

.....

.....

[Name, address & Seal of

Firm/Agency/Institute]

**ANNEXURE - III**

**Details of the skilled personnel of the party who will handle the assignment**  
**(one form for each)**

<b><u>Sl.No.</u></b>	<b><u>Particulars</u></b>	
1	Name of the expert/consultant	
2	Date of Birth	
3	Educational Qualifications	
4	Trainings undergone	
5	Work experience of the past 10 years	
6	Special qualifications and assignments Please emphasize those assignments that best illustrate the person's capability to handle the current assignment	
10	Special achievements, if any	
11	Contact details	

Note: Pl. ensure that the profiles of all the experts/personnel whose services are required for providing the requisite services are provided to avoid any disqualification on account of inadequacy of expertise.

**Certification from the officer**

I the undersigned certify that to the best of my knowledge and belief the above mentioned particulars correct.

.....  
(Signature with date)

.....  
(Name and designation)

Duly authorized to sign EOI for and on behalf of

.....  
.....  
[Name, address & Seal of Firm/Agency/Institute]

**INFORMATION REGARDING ANY CONFLICTING ACTIVITIES AND DECLARATION  
THEREOF**

Is the party engaged in any activities which conflict with the proposed activities as mentioned in this document?

If yes:

Please furnish information of activities the institution is engaged in, which in your opinion, is of a nature that conflicts with the assignment desired to be awarded by C-MET.

If no:

We hereby declare that our organisation is not either directly or indirectly engaged in any activities which can be termed as conflicting activities as mentioned in the EOI document. It is understood that any misrepresentation or misstatement in this regard shall render our organisation to be disqualified from the entire process.

.....

(Signature with date)

.....

(Name and designation)

Duly authorized to sign EOI for and on behalf of

.....

.....

[Name, address & Seal of

Firm/Agency/Institute]

**ANNEXURE - V**

**Details of similar works carried out in the past 10 years**

(Amount Rs. In lakhs)

Sl.no.	Nature of similar work carried out	Name of the party for whom such work was carried out	Total value of the work	Period of the assignment	Contact person name and Telephone no.

**Annexure - VI**

**Details of procedures being followed by the party in similar previous assignments**

- a.
- b.
- c.
- d.

**Annexure – VII**

(In the company's letterhead)

**PRE-QUALIFICATION CRITERIA**

The firm should have Proof of experience in the execution of similar works in Govt. Dept, R&D organisations, PSUs or Private companies during the last three years ending the last day of the month before the one the application invited.

**(Work orders/work completion certificates issued on or after 01.02.2020 to 31.01.2023 will be considered)**

S No	Prequalification criteria	No of works	A minimum amount of Purchase order	Amount of Purchase order	Date of commencement/ completion of work	Copies of POs* and certificates	Remarks
1	Three similar completed works, each costing not less than Rs. 30,00,000/-	1	30,00,000				
		2	30,00,000				
		3	30,00,000				
2	Two similar completed works, each costing not less than Rs. 45,00,000/-	1	45,00,000				
		2	45,00,000				
3	One similar completed work costing not less than Rs. 70,00,000/-	1	70,00,000				

\*Note: The copies of work orders & performance/ completion certificates duly attested for proof of experience will be submitted along with the EoI.

\*Note: The copies of work orders & performance/ completion certificates duly attested for proof of experience will be submitted along with the EoI.

.....  
(Signature with date)

.....  
(Name and designation)

Duly authorized to sign EOI for and on behalf of

.....  
[Name, address & Seal of Firm/Agency/Institute]