

**Expression of Interest (EOI)**  
**for**  
**Setting up of**  
**Neodymium-Iron-Boron Permanent**  
**Magnet Making Facility**



**EOI No.: IREL/CO/EOI/01/2020**

**IREL (India) Limited**

**(A Govt. of India Undertaking – Dept. of Atomic Energy)**

**Plot No. 1207, Veer Savarkar Marg, Near Siddhi Vinayak Temple, Prabhadevi, Mumbai-  
400028. Website: <http://irel.co.in>**

**(CIN No. U15100MH1950GOI008187)**

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<b>Important Dates</b>	
Last date of receipt of request for attending pre-bid meeting	23.10.2020
Pre-Bid Meeting (14:30 hrs), link will be shared on receipt of requests at <a href="mailto:anuttammishra@irel.co.in">anuttammishra@irel.co.in</a>	27.10.2020
Due date of submission of EOI	31.12.2020

# **Expression of Interest (EOI) for Setting up of Neodymium-Iron-Boron Permanent Magnet Making Facility**

## **1.0 Background:**

- 1.1 IREL (India) Limited (hereinunder referred to as IREL) is a Central Public Sector Enterprise (CPSE) under the administrative control of the Department of Atomic Energy (DAE). IREL is the only entity in the Country having the capability to produce and process Rare Earths (RE) bearing Minerals to produce Separated High Pure Rare Earths (HPREs) which include compounds/ oxides of Neodymium (Nd), Praseodymium (Pr), Samarium (Sm), Lanthanum (La), Cerium (Ce), etc.
- 1.2 The content/ availability of RE in the form of RE oxides (REO) in the natural resources is about 0.06%, which is upgraded in the concentration process to about 0.6%. After physical separation, the content of RE is in the range of 14-26%, which is further upgraded to about 45% after the cracking process. Thereafter, solvent extraction is undertaken to produce separated high pure REs, wherein the purity of RE is min. 99.9%.
- 1.3 Permanent magnets are used in variety of niche sectors such as e-mobility, green energy, 3C i.e. computing, communication and consumer sector, where, again, there is a drive to improve power to weight ratio as part of the trend towards smaller, lighter devices besides in common applications such as motors, sensors, clasps, magnetic separation, and switches industrial and military applications. The demand for these magnets will continue to increase in fields of transportation, green energy, high-tech and space applications, where size, weight and power need to be optimized for high efficiency performance.

## **2.0 Objective:**

- 2.1 India's commitment to reducing its GHG emissions intensity by 33-35% below 2005 levels, target of 30% electric vehicle adoption by 2030, increase installed capacity of offshore wind energy coupled with the recent shift towards automation, Industry 4.0, etc. are driving factor behind this EOI.
- 2.2 The RE elements produced by IREL required for NdFeB permanent magnet viz. Nd & Pr in oxide terms is sufficient to set up a plant to produce sizeable volume

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of NdFeB magnets. Action plan is in place to augment the Rare Earths producing capacity under different Programmes which can ensure enhanced production of Nd & Pr oxides.

- 2.3 With Expansions in place and in the event, monazite processing capacity is increased in future, additional quantities of these magnets can be produced.
- 2.4 IREL invites expression of interest (EoI) from prospective Agencies willing to set up NdFeB sintered magnet making facility in India, which would involve the following facilities:
- Conversion of Oxide to Metal
  - Production of Alloy
  - Production of NdFeB Magnet
- 2.5 The grades of NdFeB Magnets proposed to be manufactured in the plant shall be ideally between N 35 to N 48.

### **3.0 Instructions:**

- 3.1 The aspiring industry can participate solely or as a consortium. In case of consortium, the lead Member should be a Company registered in India under Indian Companies Act 1956 or 2013 or a Limited Liability Partnership under the Limited Liability Partnership Act of India, 2008
- 3.2 The model under which the Plant will be set up can be Design-Build-finance-Maintain-Operate (DBFMO)/ Build-Own-Operate (BOO) or any other suitable model within approved framework of Government of India, to be proposed.
- 3.4 IREL on its part will ensure the following:
- 3.4.1 Raw material security (NdPr Oxide)
- 3.4.2 IREL has about 8.5 acre of land in Kerala, which can be used for setting up of the plant. The lease rent towards the land would be at prevailing Government rates.

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Alternately, the aspiring industry can set up the plant in their own premises, if any.

- 3.5 The aspiring industry are required to provide the information in the format placed under Annexure-I & Annexure-II. In case of Consortium participation, details of Annexure-I is to be submitted for all the members of the Consortium.
- 3.6 Kindly confirm that you have not been banned or de-listed by any Government or Quasi Government agencies or PSUs of India or any other companies as per format prescribed in Annexure-III.
- 4 Based on the responses received, the Request for Proposal (RFP) will be framed to select the Prospective Bidder.

**5 Pre-Bid Meeting:**

Pre-bid meeting will be organized over VC to clarify the doubts of aspiring industries on **27.10.2020**. Aspiring industries are requested to send a mail to [anuttammishra@irel.co.in](mailto:anuttammishra@irel.co.in) along with their contact details by 23.10.2020 so as to send the VC link for participation.

- 6 Interested applicants shall submit their proposal in duplicate in separate sealed envelopes addressed to

General Manager (Projects) & I/c Purchase,  
IREL (India) Limited  
Plot no. 1207, Veer Savarkar Marg,  
Prabhadevi, Mumbai 400 028.

6. The sealed envelope containing the EOI should be superscribed with “EOI for production of NdFeB Magnets” and should contain all other details with supporting evidence.
7. The EOI should reach the above mentioned address on or before 15:00 hrs on 31.12.2020.

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**Annexure-I**

**Information to be supplied by the Aspiring Industry**

The following details are mandatory to be submitted by the aspiring industry in the following format, failing which their offer will not be considered:

1.
  - a) Name of the Company
  - b) Name of the Owner/ CEO/ Director of the Company
  - c) List of Partners/ Directors
  - d) List of the name and address of all associates, subsidiaries and holding companies
  - e) Office and correspondence address along with Telephone, Mobile numbers and email id
  - f) Country of incorporation
  - g) Registration details of chamber of Commerce,
  - h) Purpose of Business
  - i) Contact details (email & address) of Consulate General of India, in case the aspiring industry is from a foreign country
  - j) Any other information, which would aid in speedy due diligence
  
2. Details of individual(s) who will serve as the point of contact /communication for IREL:
  - a) Name:
  - b) Designation:
  - c) Company:
  - d) Address:
  - e) Telephone Number:
  - f) E-mail Address:

**Signature of the authorized signatory**

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**Annexure-II**

**Technical Details**

<b>S.No</b>	<b>Details</b>	
1	Does the aspiring industry propose to set up the plant in its own premises or in the land to be provided by IREL	
2	Tentative area required for the Plant in Acre	
3	Quantity of NdPr Oxide proposed for offtake from IREL	
4	Model under which the aspiring industry proposes to set up the Plant	
	DBFOM	
	BOO	
	Any other model proposed	
5	Grade of the Magnet proposed to be manufactured	
6	Quantity of Magnet the Aspiring Industry proposes to share with IREL	

**Signature of the prospective technology provider**

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**Annexure-III**

EoI no :

**Undertaking wrt Clean Track Record**

*[aspiring industry are required to submit the declaration as given here on their letterhead]*

Date: .....

General Manager (Projects)  
IREL (India) Limited,  
1207, V.S. Marg, Prabhadevi,  
Mumbai – 400 028, India.

Dear Sir,  
This is to certify that (Company Name)

\_\_\_\_\_

having its registered office at (address)

\_\_\_\_\_

have carefully gone through the terms and conditions contained in the **GLOBAL EXPRESSION OF INTEREST (EOI) TO SELECT PROSPECTIVE TECHNOLOGY SUPPLIER FOR PRODUCTION OF RARE EARTH BASED PERMANENT MAGNETS.**

We hereby declare that our company/ consortium **has not** been **debarred/ black listed** by any Government or Semi government organization.

We further certify that Mr. /Mrs. /Ms.

\_\_\_\_\_

is a competent authority and our Company has Authorized him/her to make this declaration.

**Signed:**

**Duly Authorized Signatory:** (Name)

**Name and Title of Signatory:** (In the capacity of)

**Name of the Firm:** (On behalf of)

**Address of the Firm:**

**Stamp / Seal of the Firm:** .....

*[Strike off whichever is not applicable]*