# Expression of Interest (EoI) for Rotary Electro Mechanical Actuator (REMA-20P) for project 1404

## **Technology Overview**

- 1. In order to improve the accuracy of Pinaka Multi Barrel Rocket Launching system (MBRLS), the GNC kit (guidance, navigation and control) is integrated to the unguided Pinaka Rocket system. The Rotary Electro Mechanical Actuation System (REMAs) being one of the key component of GNC kit plays a vital role in achieving the accuracy of the system. Due to low power requirement and acute space limitations, the Rotary Electro Mechanical Actuation System is preferred. The Electro Mechanical Actuator used here is used as a module and has minimum number of components compared to other types such as hydraulic or pneumatic.
- Further, the Actuation System (REMAs) has to fulfil the requirements of being able to function reliably in a typical environment involving adverse and extreme climatic conditions, field transportation and storage conditions imposing severe vibrations, bumps, mechanical shocks and extreme temperature conditions.
- So, the Actuation System (REMA) was designed and developed keeping in mind the space constraints along with harsh environmental operating conditions. The REMA Actuators were successfully flight tested in developmental trials and demonstrated the satisfactory performance.

### **Terms and Conditions**

- 1. Processing of EOI applications shall start after 10 days from the date of publication on DRDO website.
- 2. Company turnover should be greater than Rs 20 Cr per annum.
- 3. Documents to be submitted with EoI. The company must provide details about company and documents in support of their claim as per Appendix- A. Any additional documents as required by DRDO shall be sought based on request received from the interested industries.
- 4. The industry should essentially have previous experience in Fabrication, Assembly and Testing of Electro Mechanical Actuation System for Aerospace or Missile Systems.

- The industry should essentially have previous & on-going experience of delivery of above systems with clearance by Defence QA agencies like DGQA, MSQA/R&QA, RCI, CQA.
- 6. The Industry should also have skilled manpower, established quality management system, willingness and capability to setup specialized infrastructure (Load test facilities, FRA, Recorder, Power Supplies etc).
- 7. The Other Terms and conditions for industry seeking ToT are the following:
  - a) Submission of EOI does not guarantee ToT to applicant industry.
  - b) The other terms and conditions are as per the 'DRDO Policy and Procedures for ToT' for Category 'A' mentioned at <u>https://www.drdo.gov.in/sites/default/files/inline-</u> <u>files/DRDO%20Policy%20%26%20Procedure%20%20for%20ToT.pdf</u> at DRDO website.

#### Contact Details

8. The desirous industries should send their Expression of Interest (EoI) to Director, RCI on the following address:-

Director, Research Centre Imarat (RCI) Vignanyana Kancha Hyderabad- 500 028 Fax:040-24306002 E-Mail: director[at]rcilab[dot]in

Copy to:-

Director,

Directorate of Industry Interface and Technology Management (DIITM),

**DRDO Headquarters,** 

DRDO Bhawan, Rajaji Marg,

New Delhi- 110011.

Fax: 011-23793008.

E-Mail: diitm[dot]hqr[at]gov[dot]in

tot[dot]hqr[at]gov[dot]in

#### List of support documents to be attached with EOI

- a) Memorandum and Articles of Association (Should be incorporated as per Indian Companies Act, as amended time to time)
- b) Certificates of registration as a manufacturing unit, if any.
- c) Audited Balance Sheet, turnover and net worth of the company for the preceding three years.
- d) Income Tax returns for the preceding three year period
- e) Details of shareholding/ownership pattern especially foreign partners/ shareholders, foreign employees, directors, etc. The company must adhere to the prevailing Govt of India policies and regulations on Foreign Direct Investment (FDI)/DIPP norms as applicable.
- f) Annual budget (if any) for R&D during last three years.
- g) Numbers and details of IPR or patents, etc., held by the company.
- h) Number of technically or professionally qualified personnel.
- i) Record of past performance (e.g., Supply orders executed against of Ministry of Defence orders, Public Sectors and Paramilitary Forces, if any).
- j) Availability of adequate infrastructure (List of machines and their production capacities) and technical expertise to assemble, integrate and test GNC Kits.
- k) List of Testing and Support equipments
- I) ISO/ ISI certification or any other certification (if any).
- m) Relevant clearances form the authorities/ ministries (if any).
- n) Capacity and capability to undertake developmental work and to accept attendant financial and commercial risks.
- o) Capacity/capability to market the product through the marketing network, sales and service network, reliability to maintain confidentiality.
- p) Under taking from company seeking ToT that none of its Directors, Independent Directors, non-executive Directors, and Key management personnel are involved in any corrupt practices, unfair means and illegal activities.
- q) Under taking from Company seeking ToT in respect of Para 1 (g) and Para 1(h) of Eol.
- r) Brief description of R&D facilities and certificates recognised by any Govt agencies.