

“Piezo Pulse Power Generator for Armament Systems”

Certain class of Ferroelectric materials when subjected to shock waves generates huge amount of pulsed power in the form of voltage and current as compared to commercially available piezoceramics. Such ferroelectric materials-based pulsed power generating devices are known as ferroelectric generators. Ferroelectric energy generator systems are source for generating large amount of electrical energy in the form of pulse power which is required for many applications. In these systems the electrical pulse is generated by shock wave depolarization of ferroelectric material using explosive. Ferroelectric ceramics are an integral component of explosively driven ferroelectric pulse power generators which utilizes the energy of the ferroelectric ceramics to initiate the explosive train. The ToT includes the method to manufacture the ferroelectric ceramic and fabricating a ferroelectric generator system out of that.

1. **Interested companies/industries are requested to apply against this EoI to following address:-**

To,

The Director

Armament Research & Development Establishment (ARDE),

Dr. Homi Bhabha Road, Pashan, Pune-411021

Email-director.arde@gov.in

2. **A copy of interest may be sent to the following address without any attachment:-**

Copy to:-

To,

The Director

Directorate of Industry Interface & Technology Management (DIITM)

Room No. 447, DRDO Bhawan, Rajaji Marg, New Delhi-110 011

Email-diitm.hqr@gov.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 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 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.
- (k) List of Testing and Support equipment's
- (l) ISO/ ISI certification or any other certification
- (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) PESO and DPIIT license for explosive handling if ToT is for high energy Material, explosives, propellants, and component/ system dealing with it etc.
- (q) Under taking form company seeking ToT that none of its Directors, Independent Directors, non-executive Directors, Key management personnel are involved in any corrupt practices, unfair means and illegal activities.
- (r) Details of the industrials license for defence manufacturing be provided by the industry seeking ToTs.