

## EXPRESSION OF INTEREST (EOI)

### FOR DESIGN, DEVELOPMENT AND MANUFACTURE OF PROTOTYPES FOR AERIAL FUZE FOR BOMB UNDER MAKE II (INDUSTRY FUNDED) PROCEDURE OF DPP 2016

**Reference:** Defence Procurement Procedure 2016 (DPP - 2016) (as amended)

**Appendices:**

- A Commercial and Technical Evaluation Criteria
- B Format for Eoi response
- C Confidentiality Agreement
- D Correctness Certificate
- E Certificate of Undertaking

**Layout:** This Eoi is covered under the following parts:-

- (a) Part I : General Information
- (b) Part II : Scope of Project
- (c) Part III: Evaluation Criteria
- (d) Part IV: Procedure for submission of response to the Eoi
- (e) Part V: Miscellaneous

**Note:**

(a) Detailed guidelines on Make II Procedure (Chapter III-A) of Defence Procurement Procedure 2016 (DPP - 2016) Capital Procurement, incorporating all amendments upto 01 Nov 2019 may be downloaded from Government of India, Ministry of Defence website [www.mod.nic.in](http://www.mod.nic.in) for reference.

(b) The nodal officer for all queries/coordination will be Secretary, Project Facilitation Team (PFT), Indigenous Aerial Fuze for Bomb, Dte of ASR (Room No. 451) Air HQ (Vayu Bhawan) Rafi Marg, New Delhi-110001.

(c) All references to DPP indicate the latest amendment to the DPP and its provisions.

## **PART I: GENERAL INFORMATION**

1. **Introduction.** The DPP-2016 has outlined the 'Make-II' procedure in Chapter IIIA with an aim to promote the 'Make in India' initiative. Make – II (Industry Funded) sub-category has been introduced for design and development of equipment with focus on import substitution. In this category, no Government funding is envisaged for prototype development purpose but has assurance of orders on successful development and trials of the prototype. Towards this, Air HQ (IAF) has identified a proposal to provide an opportunity to eligible Indian vendors for indigenous design and development of an Aerial Fuze for Mk 80 series GP Bombs and subsequent procurement from successful Development Agency (DA) (ies) as per the provisions of DPP-2016.
2. **Objective.** The objective of this EoI is to seek responses from eligible Indian vendors (*as defined at Appendix A to Chapter III A of DPP-2016*) for design, development & manufacture of prototypes of Aerial fuze for Mk-80 series GP bombs.

## **PART II: SCOPE OF THE PROJECT**

3. **Scope.** Indigenous Design and Development of prototypes of Aerial Fuze (with impact, delay and proximity modes) suitable to be used as tail and nose mounted on Mk 80 series GP Bombs under '**Make II (Industry Funded)**' category and subsequent procurement from successful Development Agency(ies). under '**Buy (Indian-IDDM)**' category of DPP-2016.
4. **Phases.** The project involves the following two phases:-
  - (a) **Prototype Development Phase.** This phase involves indigenous design and development of prototypes with impact, delay and proximity modes of operation as per the Preliminary Service Qualitative Requirements (PSQR 04/2019) in accordance with the 'Make-II (Industry Funded)' category of Chapter-III A of DPP-2016.
  - (b) **Procurement Phase.** This phase will commence with 'Solicitation of Commercial Offers' from successful DAs prior to commencement of User trials as per 'Buy (Indian-IDDM)' category with minimum of 40% IC in accordance with Chapter-II of DPP-2016.
5. **Preliminary Service Qualitative Requirements (PSQR).** PSQR No. 04/2019 for Design and development of Aerial Fuze for Bombs containing the essential operational requirements and desirable characteristics for design and development of prototype will be handed over to the eligible Indian vendors on signing of a Non-Disclosure Agreement.
6. **Stages.** Stages of the development and procurement process are as given at Para 9 of the Make II procedure of Chapter III A of DPP 2016.

7. **Milestones.** Major activities are as given below:-

SI No	Activity	Remarks	Timelines in weeks
(a)	Eol Response Submission	By Eol Respondents	6 weeks
(b)	Eol Response evaluation	By PFT	5 weeks
(c)	Issue of Project Sanction Order for Development of Prototype	To selected DAs	2 weeks
(d)	Design & Development of Prototype	By DAs	104 weeks
(e)	Kick-off Meeting of DAs with ASTE, SDI, HAL, CEMILAC, DGAQA reps Preparation of DPR if necessary. Design, PDR, CDR if necessary.		
(f)	User Trial Readiness Review	By PFT	4 weeks
(g)	Conversion of PSQRs to SQRs	By PFT	4 weeks
(h)	Solicitation of Commercial Offer		4 weeks
(i)	Conduct of User Trials		4 weeks
(j)	Staff Evaluation		4 weeks
(k)	Cost negotiation committee (CNC) and Contract		8 weeks

8. **Design Development of Prototype.** The prototype indigenous aerial fuze should be developed as per the PSQRs. The quantity of prototypes necessary will be finalised as a part of Route to Certification with CEMILAC (Centre for Military Airworthiness Certification). Any clarification related to functional or operational aspects of the development, as sought by the DAs will be provided by the PFT. The mechanical interface of the fuze with the aircraft will be the same as that of the existing fuzes used in the aircraft. DAs will have to ensure this aspect by studying the existing system. Completion of a User Trial Readiness Review (UTRR) by Project Facilitation Team (PFT) will mark the end of this phase.

9. **Route to Certification.** Development and testing of the prototypes will be carried out as per the 'Route to Certification' including methodology of ground and flight evaluation. The same will be finalized between DAs, IAF, CEMILAC and DGAQA. DDPMAS-2002 (or latest) is to be followed for certification.

10. DAs may be required to produce one or more of the following documents as per applicable Standards/Specifications for approval by IAF/ DGAQA/ CEMILAC:-

- (a) Design document to include design philosophy, working principles, calculations, assumptions, etc.
- (b) Qualification Test Procedures with respect to PSQRs.
- (c) SOP document containing Master Drawing Index (MDI), Bill of Material (BOM) and Part List (PL).
- (d) Manufacturing Process Document.

- (e) Environmental Qualification Test Procedure (EQTP).
- (f) Quality Assurance Plans (QAP) and Acceptance Test Procedure (ATP) Documents.

11. **Developmental Qualification.** Development testing/trials of the prototype are to be undertaken by the Developmental Agencies (DAs). It is necessary for DAs to provide and cater for test facilities and instrumentation required for testing and certification of the prototype. Airworthiness Certification and Flight Clearance Certification form RCMA will be the responsibility of the vendor/DAs. In case any IAF facility is required during the trials, the vendor may provide a list of such facilities in his response. After completion of successful User trials the DAs may obtain type certification for the product from CEMILAC. The quality assurance coverage during Testing/Trials and subsequent manufacture shall be provided by DGAQA.

12. **User Trial Readiness Review (UTRR).** After the DAs confirm completion of prototype development, the PFT will undertake a UTRR to check readiness of the DA to offer the item for User Trials. Necessary technical literature pertaining to the design & material will be provided by the DAs for the User Trial Readiness Review and conduct of User Trials. The UTRR will also examine vendor claims of indigenous design, as well as IC requirements of the project.

13. **Solicitation of Commercial Offers.** A commercial Request for Proposal (RFP) under 'Buy (Indian-IDDMM)' category with minimum of 40% IC in accordance with Chapter-II of DPP-2016 would be issued to successful DA(s) separately prior to commencement of User Trials to solicit their commercial offers and additional information and documentation, as may be necessary.

14. **Deliverables.** The project is envisaged to have the following deliverables. The details of procurement phase will be further amplified in the Commercial Request for Proposal (RFP):-

(a) **Prototype.** Approximately Quantity 150 (one hundred fifty) Aerial Fuzes are to be provided by the shortlisted DA(s) for User trials. Exact number(s) of prototypes needed for trials will depend on trial methodology for ground and flight evaluation.

(b) **Procurement.** Qty 3000 Aerial Fuzes are envisaged to be procured every year for five years under Buy (Indian-IDDMM) category of DPP-2016 from successful DAs. The total requirement for five years is Qty 15000 Aerial Fuzes along with Tools, Testers and Ground Equipment (TTGE), requisite training, technical literature including user handbook, operations & technical documents and manuals for associated equipment.

15. **Multiple Technological Solutions.** Multiple Technological Solutions are acceptable as per Para 45 of Chapter-III A of DPP 2016 for procurement of specified quantities (in the ratio of 70:30) from other vendors (referred to as L2) who have successfully developed the product, on the condition that this second vendor accepts the price and terms & conditions quoted by the L1 vendor.

16. **Intellectual Property Rights (IPRs).** Policy on IPRs is mentioned at Para 47 of the Chapter III A of DPP-2016 for Make-II Procedure.

### **PART III: EVALUATION CRITERIA**

17. **Eligibility.** Indian Entity satisfying criteria given at Appendix A of Chapter III A of DPP 2016 is considered as an eligible 'Indian Entity' for the project.

18. **Evaluation Criteria.** EoI respondents will be evaluated for compliance to commercial and technical criteria placed at **Appendices A.**

19. **Indigenous Content.** Indigenous Content of minimum 40% is to be ensured at prototype stage and during procurement stage. After successful development of prototype(s), the equipment offered for trial shall be accompanied with a certificate of IC issued by the CFO of the prime(main) bidder. IC content will be assessed as per guidelines at Appendix A to Chapter I of DPP 2016. All relevant deliveries made under contract shall be accompanied by a certificate of IC issued by the Chief Financial Officer (CFO) of the prime/main contractor. All final deliveries under contract shall be accompanied, in addition to the certificate issued by the CFO of the prime (main) contractor as aforesaid, by its Company Auditor's certificate.

20. **Foreign Collaboration.** If the EoI respondent is collaborating/plans to collaborate with a foreign technology provider, the nature of such collaboration and the technology areas being transferred must be stated in the response (please refer Para 13 & 24 of **Appendix B**). It is essential to have minimum 40% Indigenous Content on cost basis of the total contract value.

### **PART IV: PROCEDURE FOR SUBMISSION OF RESPONSE TO THE EoI**

21. **Guidelines for Submitting EoI Responses.** The guidelines for submitting EoI response are as follows:-

(a) The responses should be submitted as per the format placed at **Appendix B**. Should a vendor need to mention any other information, a separate column/ row/ additional pages may be added.

(b) All responses as per Appendices should be submitted in a single file/folder. Supporting documents/additional references should be submitted in a separate folder with proper reference mentioned against each parameter/sub parameter in respective appendices.

(c) Any supporting document/evidence without any reference to specific parameter of criteria will not form part of assessment. Such document may be used only at discretion of review committee/person.

22. **Rejection Criteria for Selection as DAs.** The following may lead to rejection of Eol response:-

- (a) Failure to meet/comply with the Commercial and Technical Evaluation Criteria given at **Appendix A.**
- (b) Failure to offer compliance to any of the terms and conditions given in the Eol.
- (c) Failure to agree with the project timelines.
- (d) Failure to offer desired indigenous content.
- (e) Any other parameter of the response considered.

23. The Eol respondent shall submit one copy (in hard and soft) of his response duly signed by company authorised representative. The Eol response shall be addressed as under:-

Chairman,  
 Project Facilitation Team (Indigenous Aerial Fuse)  
 Gp Capt ASR (Wpns)  
 Dte of ASR (Room No. 455)  
 Air HQ (Vayu Bhawan)  
 Rafi Marg, New Delhi-110001  
 Telephone/ Fax: 011-23060209/ 23011836

24. The response to this Eol must be submitted by **1600 hours on 13/07/2020** at the address mentioned above.

25. The Company will be required to sign and honor the 'Confidentiality Agreement' with MoD, Govt of India. The 'Confidentiality Agreement' will be furnished by each Eol respondent at the time of submission of Eol responses as per format given at **Appendix C.**

## **PART V: MISCELLANEOUS**

26. **Pre Eol Response Meeting.** Companies may submit written queries/clarifications/ amplifications on specific issues within 10 days of the issue of Eol. A pre-response meeting will be held in about three (3) weeks after the issue of Eol to clarify issues / queries raised by the participating firms to facilitate submission of response. Date of pre-response meeting will be promulgated by the PFT.

27. Respondents would be subject to disqualification if they make false, incorrect, or misleading claims in their response to this Eol. A 'Correctness Certificate' as per the format at **Appendix D** will be furnished as part of the response.

28. Guidelines for penalties in business dealings with entities as promulgated by Government from time to time will be applicable on procurement process & bidders. A certificate of undertaking as per **Appendix E** that the Firm/Company/Vendor are not banned/debarred/suspended from doing business with Government of India/ any other government organization is to be submitted.

29. The Pre-Contract Integrity Pact (PCIP), listed as detailed in para 92 of Chapter II of DPP 2016, shall apply mutatis mutandis, to 'Buy (Indian-IDDM)' phase of 'Make' project.

30. Please acknowledge the receipt of this invitation for EoI.

File No: Air HQ/S.96396/ASR

Date: 01 Jun 2020

-----Sd-----  
(MS Rama Mohan)  
Gp Capt  
Chairman  
Project Facilitation Team

Appendix:- As stated

**Distribution List:-**

SI No	Addressee	Mode of Dispatch
1.	Air HQ (VB) Dte of Acq (for publishing on MoD website and issue to Vendors as mentioned below)	SDS
2.	M/s VEM Technologies, Hyderabad	sales@vemtechnologies.com
3.	M/s Essen Electronics, Visakapatnam	bd@essen.org.in
4.	M/s Larsen & Tubro Defence Ltd, Pune	Parag.saxena@larsentoubro.com
5.	File Copy	----

Appendix A  
(Refers to Para 18 of Eol)

### **COMMERCIAL EVALUATION CRITERIA**

<b>SI No</b>	<b>Information</b>	<b>Pass Criteria</b>
(a)	Nature of the Company	As per Appendix A of Chapter III A of DPP-2016
(b)	Ownership Status	
(c)	Category of Industry.	Large/Medium/ Small/ Micro/Startup
(d)	Annual Turnover	Average annual turnover of the applicant company for the last three financial years ending 31 <sup>st</sup> March of the previous financial year of the previous financial year, should not be less than 5 % of the Cost of the project.
(e)	Net Worth	Net worth of the entities ending 31 <sup>st</sup> March of the previous financial year should be " <b>Positive</b> ".

### **TECHNICAL EVALUATION CRITERIA**

<b>SL No</b>	<b>Criteria and Sub Criteria</b>	<b>Pass Criteria</b>
(a)	Engineering and technical ability	Self-certification by Eol respondent
(b)	Proposed indigenous content in percentage of total cost at prototype stage and final stage	As per Chapter IIIA of DPP 2016
(c)	Total Land area	Statement of firm for adequacy
(d)	PSQRs Compliance	Self-certificate of compliance by Eol respondent
(e)	Intellectual Property Rights (IPR)	Vendor to confirm IPR as per Para 18
(f)	Explosive License	An explosive license is needed for companies involved with handling/ processing/ storing/ assembly/ manufacture of explosive items.  Indicate if the product is likely to need explosive clearance and if so, if the company has an explosive license, or plans to acquire an explosive license.



## FORMAT FOR EOI RESPONSE

### PART I – VENDOR DETAILS

1. Name of Case: **Design, Development and Manufacture of Aerial Fuze for Mk-80 Bombs.**
2. Name of Eol Respondent:
3. Mailing Address/Contact/Phone/Email/Website (If factory site is located differently, indicate address of the same):
4. Name/Particulars of CEO:
5. Date of incorporation:
6. Brief history of company:
7. Nature of Company:  
*(Public/Private/Limited/Sole proprietorship etc)*
8. Category of Industry:  
*(Large/Medium/Small/Micro/Start Up)*
9. Nature of business *(Manufacturer/ Trader/ Sole Selling or Authorised Agent/ Dealer/ Assembler/ Processor/ Re packer/ Service Provider):*
10. Average Turn Over of the last three financial years:
11. Net worth of the company, as on 31 Mar of last FY (should be positive).
12. Details of current products:-  
*(Type/ Description, Licensed/ Installed Capacity, Annual Production for Preceding 3 Years):*
13. Details of foreign collaboration(s), if any, related to execution of the project.  
*(Include details related to name(s) of the entity, work share planned – during design, development, as well as manufacture):*
14. Have you supplied any product/services to MoD, Indian Army/Indian Air Force/ Indian Navy/ Indian Coast Guard/ DPSUs/ DRDO labs/Ordnance Factories, any other defence organisation etc.? (Provide indicative list, if applicable)

15. Details of permanent manpower:-
  - (a) Technical:
  - (b) Administrative:
16. Total Area of Factory:
  - (a) Covered area (Sq M):
  - (b) Uncovered area (Sq M):
  - (c) Any other space available (Sq M):
17. Is the factory space adequate to undertake design, development and manufacture of design, develop & manufacture of Aerial fuze for Mk-80 series GP bombs?
18. Details of explosive license for handling and manufacturing of explosives. (*Provide copy of license*)
19. Any other information, relevant to the case.

## **PART II: PROJECT SPECIFIC INFORMATION**

20. Outline proposal of the company to undertake prototype development.
21. Stages/phases of development, with indicative time schedules.
22. Milestones that can be demonstrated to facilitate project monitoring.
23. Role, responsibility and expertise details of the firm, if any, and if applicable.
24. Role of foreign technology provider, if any.
25. Requirement of specialised testing assistance, where such facilities are available only with Armed Forces/DRDO/DGAQA/DGQA/DGNAI or any other Govt facility. (Please provide a list of such facilities, with time period for which required).
26. Information to prove design/developmental capacity:-  
(*Any past examples of indigenous design and development, R&D facilities available in house, if any; Technical/ R&D manpower/expertise available, institutional tie ups, MoU, laboratory and drawing office facility, CAD/CAM facility, percentage of total turnover spent on R&D during last three years etc*)
27. Details of important facilities:  
(*Production facilities, CAD/CAM/Robotics, other advanced technology tools, environmental testing facilities, tool room, metrology and test eqpt facilities, instrumentation etc*).

28. Please furnish an undertaking that design and development will be as per provisions and guidelines of Chap IIIA of DPP 2016, especially as they relate to IC and IPR.
29. Documents to be submitted along with this appendix, by the EoI respondent:-
- (a) Copy of latest certificate of incorporation by the Registrar of Companies.
  - (b) Audited Financial Statements (Profit & Loss Account and Balance Sheet) with Auditors Report.
  - (c) An undertaking as per para 21 & 22 above (project milestones), signed by a duly authorised representative of the firm.
  - (d) Acceptance Certificate, clause wise of all terms and conditions given in the EoI.
  - (e) Confidentiality Agreement (As per format at Appendix C).
  - (f) Correctness Certificate (As per format at Appendix D).
  - (g) Undertaking as per Para 28 of this appendix (IC and indigenous design requirements).
  - (h) Self-certification for adequacy of engineering and technical ability for D&D of FFM.
  - (j) Certificate for PSQR compliance.

**Note:-**

1. All submissions must be supported by referenced documents issued by relevant agencies/Audited balance sheet of the company.
2. Any input with incorrect or missing reference will not be assessed.
3. No separate financial, commercial criteria will be applied for start-ups.
4. Attach additional pages, as necessary.

**CONFIDENTIALITY AGREEMENT**

1. It is certified that Expression of Interest document for the project of Indigenous design, develop & manufacture of Aerial fuze for Mk-80 series GP bombs will not be shared with any agency in part or in full. Only relevant details, as applicable, will be shared with technology partners including foreign technology partners. However, the Eol document itself will not be shared with any technology partners.

2. The company understands the security sensitivity of such operational system and any information pertaining to deployment and usage of the system including system scaling will not be discussed with third party. The company understands that failure to observe this agreement will lead to disqualification from the project without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

Signature with Company Seal

Appendix D  
(Refers to Para 27 of Eol)

**CORRECTNESS CERTIFICATE**

It is certified that information submitted in the documents as part of the response to Expression of Interest for the project of Indigenous Aerial fuze for Bomb is correct and complete in all respects. It is acknowledged that the company will be disqualified from further participation if any information provided is found to be incorrect.

Signature with Company Seal

**CERTIFICATE OF UNDERTAKING**

This is to confirm that M/s.....are currently not banned/debarred/suspended from doing business dealings with Government of India/any other government organisation and that there is no inquiry going on by CBI/ED/any other government agencies against M/s.....

In case of ever having been banned/debarred/suspended from doing business dealings with Government of India/any other government organisation, in the past, the Firm/Company/Vendor will furnish details of such ban/debarment along with copy of government letter under which this ban/debarment/suspension was lifted/revoked.

Signature with Company Seal