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Combat Engineers Directorate/
Combat Engineers-5(B)
Integrated HQ of MoD (Army)
Engineer-in-Chief's Branch
Kashmir House
DHQ PO, New Delhi-110011

80077/CE-5(B)

13 May 2022

**REQUEST FOR INFORMATION (RFI) FOR PROCUREMENT
OF ARMoured EARTH MOVING EQUIPMENT (AEMEs) FOR INDIAN ARMY**

1. Ministry of Defence, Govt of India is planning to procure approximately 50 Numbers of Armoured Earth Moving Equipment (AEME).
2. The Request for Information (RFI) consist of three parts as indicated below:-
 - (a) **Part I.** The first Part of RFI incorporates operational & technical characteristics and features of the AEME. The 'Response by vendors' column in the tabulated sheet to be filled in by the vendor as to whether the specified parameter is complied with or not and with any other details as applicable. Amplifications or comments to fresh inputs or changes suggested, also be brought out in order to facilitate review of the operational requirements.
 - (b) **Part II.** The second part of RFI states the conditions to be acceptable to vendors and methodology of seeking response from vendors. Submission of incomplete response format could render the vendor liable for rejection.
 - (c) **Part III.** Criteria for qualification in Buy Indian (IDDM)/ Buy (Indian)/ Buy & Make (Indian).

PART I

3. **Intended Use of the Equipment (Operational Requirement).**

- (a) **Employment.** AEMEs to be employed by Specialist Engineer Regiment along with Armoured formations for earth moving tasks in varied

operational conditions and at temperatures of (-)15°C to 50°C and upto 5000M altitude.

(b) **Characteristics of AEME.** It should be based on a tracked 'in service' platform providing armoured protection with the capability to undertake various earth moving tasks such as dozing, excavating and obstacle clearance.

4. **Important Technical Parameters.** The AEME shall comprise of the following sub systems:-

(a) **General Description.** The AEME should be based on an in-service tracked armoured vehicle. The platform shall be suitably identified and procured/ manufactured by the vendor for integration.

(b) **Weight.** 45T or below.

(c) **Power.** At least power requirement (to be proposed by vendor).

(d) **Protection.** The equipment should offer protection against Small Arms as per STANAG levels or greater.

(e) **Excavator Bucket.** Should have capacity of 1M³ to 3M³ along . An auxillary bucket with a universal coupler.

(f) **Multipurpose Dozer.** The Dozer blade should be operable in different modes to achieve a range of dozing action or transport under different conditions.

(g) **Drill, Grabber, Obstacle Removal System, Recovery Winch.** The capability of these or any other proposed attachments to be specified by the vendor.

5. Vendors should confirm that the following conditions are acceptable:-

(a) The solicitation of offers will be as per 'Single Stage - Two Bid System'. It would imply that a 'Request for Proposal (RFP)' would be issued soliciting the technical and commercial offers together, but in two separate sealed envelopes. The validity of commercial offer would be at least 18 months from the date of submission of offers.

(b) The technical offers would be evaluated by a Technical Evaluation Committee (TEC) to check its compliance with RFP.

- (c) The equipment of all TEC cleared vendors would be put through a 'Field Evaluation Trial' in India on a "No cost No Commitment" basis. A staff evaluation would be carried out by Indian SHQ to analyse the result of field evaluation and shortlist the equipment for introduction into service.
- (d) Amongst the vendors who have been cleared by the TEC, a Commercial Negotiation Committee (CNC) would decide the low cost bidder (L1) and conclude the approved contract.
- (e) Vendor would be bound to provide product support for time period specified in the RFP, which includes spares and maintenance tools/jigs/fixtures for field and component level repairs.
- (f) Vendor would be required to accept the general conditions of contract given in the Standard Contract Document at Chapter VI of DAP 2020.
- (g) Acceptance of terms of payment as per DAP 2020.
- (h) **Integrity Pact (if applicable)**. An integrity pact alongwith appropriate Bank Guarantee is a mandatory requirement as per Annexure I to Appendix O of Schedule I of DAP 2020.
- (j) **Performance/ Warranty Bonds**. Performance-cum-Warranty Bond both equal to 3% value of the contract inclusive of taxes and duties or as amended from time to time is required to be submitted after signing of contract.

PART II

6. Procedure for Response.

- (a) Vendors must render response as sought at **Appendices A to D** to this RFI. Apart from filling details about company, details about the exact product meeting technical specifications should also be carefully filled. Additional literature on the product can also be attached with the form.
- (b) Any queries on the RFI be posted on email ce5-einc-army@nic.in latest by **03 Jun 2022**.
- (c) A vendor interaction is proposed on **10 Jun 2022** at Engineer in Chief's Branch, Kashmir House, New Delhi to resolve the above mentioned queries.

(d) Last date of acceptance of all documents is 11 Jul 2022. The vendors shortlisted for issue of RFP would be intimated.

7. The Government of India (GoI) invites responses to this request from **OEMs/ authorised Indian Vendors**. The end user of the equipment is the Indian Armed Forces.

8. This RFI is being issued with no financial commitment and the Ministry of Defence (MoD), GoI reserves the right to change or vary any part thereof at any stage. GoI also reserves the right to withdraw should it be necessary at any stage. The acquisition process would be carried out under the provisions of DAP 2020.

PART III

9. **Criteria for qualification in Buy Indian (IDDM)/ Buy (Indian)/ Buy & Make (Indian).** Vendors are required to understand criteria for qualification in Buy Indian (IDDM)/ Buy (Indian)/ Buy & Make (Indian) categories as given at chapter I of DAP 2020. Criteria for 'Indian Vendor' shall be as at Annexure IV to Appendix A of Chapter II, DAP 2020. Towards this, answers to specific questions as at **Appendix D** shall be filled in detail.

Appendix A

{Refers to Paragraphs 6(a) of
Combat Engineers Directorate
letter No 80077/CE-5(B) dt
Mar 22}

**REQUEST FOR INFORMATION (RFI) : PROCEDURE FOR RESPONSE FOR
ARMoured EARTH MOVING EQUIPMENT (AEME)**

RFI for AEME

1. The Indian Army is planning to procure AEME. With the view to identify probable vendors who can undertake the said project, OEMs/ Authorised Vendors are requested to forward information on the product which they can offer. The parameters/ broad specifications of the equipment are mentioned in the questionnaire attached as per **Appendix B**. In addition the vendors are required to furnish details as per performa at **Appendices C & D**.

2. Apart from the information as per the Appendices the vendors may also forward technical details/product brochures/ literature etc pertaining to the item in question.

3. The required information/ details may please be forwarded at the following address by **11 Jul 2022** :-

- (a) **Combat Engineers - 5(B)**
Combat Engineers Directorate
E-in-C's Branch, Room No 91, Kashmir House
Integrated HQ of MoD (Army)
Rajaji Marg, New Delhi-110011
Fax : 011-23019675
E mail : ce5-einc-army@nic.in
- (b) **Directorate General of Capability Development (CD – 15A)**
General Staff Branch
A Wing, Sena Bhawan
IHQ of MoD (Army)
DHQ PO, New Delhi-110011

- (c) **Directorate General of Capability Development (RFP Cell)**
General Staff Branch
Room No 444, Sena Bhawan
Integrated HQ of MoD (Army)
DHQ PO, New Delhi – 110011, Fax : 011-23012794

- (d) **Additional Director General of Army Design Bureau (T&WS)**
(GSQR Cell)
General Staff Branch 'C' Wing
Room No 16, Sena Bhawan
Integrated HQ MoD (Army)
DHQ PO, New Delhi - 110011, Fax : 011-23014742

- (e) **Additional Director General Technical (Army)**
Room No 30, D-II Wing, Sena Bhawan
Ministry of Defence, New Delhi - 110011
Fax : 011-23792414

Appendix B

{Refers to Paragraph 6(a) of
Combat Engineers Directorate
letter No 80077/CE-5(B) dt
Mar 22}

**REQUEST FOR INFORMATION (RFI) : ARMoured EARTH MOVING
EQUIPMENT (AEME)**

Ser No	Specifications/ Parameters	Vendor Response
	<u>Operational Parameters</u>	
1	<u>Role.</u> The AEME shall be required to perform following tasks in deserts/ plains and high altitude areas:-	
	(a) Drill & rip concrete and huge naturally occurring pieces of rock.	
	(b) Grab and move huge pieces of rocks, logs and such heavy natural obstacles.	
	(c) Excavate large quantities of earth and dump at a different location.	
	(d) Carry out heavy dozing tasks.	
	(e) Lift and move loads using adjustable lift arm & hook.	
	(f) Removal of obstacles to enable mov.	
	(g) Recover bogged down vehicles in different terrain.	
2	<u>General Description.</u> The AEME should be based on an in-service tracked armoured vehicle. The platform shall be suitably identified and procured/ manufactured by the vendor for integration (<i>vendors to bring out details of the proposed platform and changes if any in the basic operating parameters of the platform</i>). Also, any necessity of change in existing track teeth to achieve the desired dozing efficacies should be brought out by the vendor.	
	(a) <u>Weight.</u> 45T or below.	
	(b) <u>Power.</u> At least power requirement (to be proposed by vendor).	
	(c) <u>Crew.</u> The equipment should be operable by a crew of two to three personnel.	
	(d) <u>Protection.</u> The equipment should offer protection against Small Arms as per STANAG levels or greater (<i>proposed STANAG standards for Small Arms should be brought out by vendor</i>).	
3	<u>Environment Conditions.</u>	
	(a) <u>Operating Temperature.</u> (-) 15 ⁰ C to 50 ⁰ C.	

Ser No	Specifications/ Parameters	Vendor Response
	(b) Storage Temperature. (-) 20° C to 55°C.	
	(c) Altitude. Upto 5000m.	
	Technical Parameters	
4	Excavator Bucket. Should have capacity of 1M ³ to 3M ³ with a universal coupler (vendor to bring out the speed of operation achievable at environmental conditions as at Paragraph 3 above).	
5	Multipurpose Dozer. The Dozer blade should be operable in different modes to achieve a range of dozing action or transport under different conditions (vendor to bring out the speed of operation achievable at environmental conditions as at Paragraph 3 above).	
	(a) Modes of Operation (various parameters to brought out by the vendor).	
	(i) Transportation mode.	
	(ii) Straight Blade dozing mode.	
	(iii) Wedge Blade dozing mode.	
	(iv) Angling Blade dozing mode.	
	(v) Obstacle crossing mode.	
	(b) Dozing Depth. Between 0 to 350mm.	
	(c) Dozing Speed. Between 4 to 6 Km/hr.	
	(d) Dozing Rate. Between 0 to 300 cu m/ hr.	
6	Drill, Grabber, Obstacle Removal System, Recovery Winch. The capability of these or any other proposed attachments at environmental conditions as at Paragraph 3 above to be specified by the vendor.	
7	Universal Coupler. Equipment should have a universal Coupler with provision for attaching/ detaching the various implements as mentioned above in a short timeframe under field conditions.	
8	Any requirement of Auxiliary power sources to be brought out by the vendor.	
9	The feasibility for the equipment to be equipped with a turret where a Main Gun can be mounted to be explored by vendor.	
10	The feasibility of mounting and firing a co-axial gun, hull gun and anti- aircraft gun on the equipment to be provided by vendor.	
	Transportability. AEME should be transportable by rail and air (IL-76/ C-17).	
11	Life Expectancy. In sync with the platform.	

Ser No	Specifications/ Parameters	Vendor Response
	<u>Maintenance & Ergonomic Parameters</u>	
12	In sync with the platform.	
	<u>Indigenous Content/ Production</u>	
13	Will your product meet Buy (Indian)/ Buy (Indian-IDDM) specifications as per DAP 2020. Specify with details.	
14	Can the AEME be produced indigenously? If yes, what will be the Indigenous Content provided & verification process?	
15	What is the overall percentage of indigenisation for the AEME in terms of cost?	
16	What are the critical technologies which your industry has taken from global partners or Joint Venture (JV), if any? Or what are the essential critical technologies which are required to be obtained?	
17	How much time will the start up/ JV take to start production?	
18	Does Indian Industry have the capacity to design develop, manufacture, test and integrate the system including the critical technology?	
19	Do you have industrial licenses for the production of the AEME? If not, have you applied for the same and when (date) and by when it is likely to be granted?	
20	How much time is required by the Industry to deliver the AEME/ platform with the stipulated indigenous content, post trials/ contract for operational use?	
21	Please furnish details of IPR documentation/ patents/ design resignation/ copyright etc registered with the authorised agency in respect of the AEME?	
22	Is complete set of design and production drawing and source code for all software applications/ programmes available with your company? Can they be produced for verification?	
	<u>Transfer of Critical Technologies</u>	
23	If your firm is not the OEM, is the OEM willing to provide transfer of critical technologies? If yes, then what are the critical technologies that can be provided (depth and range also to be qualified)?	
24	How and in what 'Time Frame' will you ensure the ToT?	
25	Are there any qualifying terms and conditions for ToT? Specify details.	
26	If the equipment is of foreign origin, then what is the capability of Indian vendor to indigenously design and develop the required equipment?	

Ser No	Specifications/ Parameters	Vendor Response
	<u>Trials/ Prototype/COTS</u>	
27	Is the prototype readily available or has to be designed/ manufactured?	
28	In what time frame can the prototype of AEME be fielded for trials post confirmation of TEC? This data should factor time for transportation etc.	
29	Is the proposed equipment readily available as COTS? If so what quantities have been sold to various agencies (Govt/ otherwise) in the last five years? Details to be furnished. Can all the proposed specifications be met by the COTS equipment? Bring out particular specifications which require changes/ modifications.	
30	Is the OEM/ Vendor willing to participate in trials as per DAP 2020 in India on NCNC basis?	
31	Whether crew required for operating the equipment for trials shall be provided by the vendor?	
	<u>EMI/EMC and other Standards</u>	
32	What Military Standards are being confirmed to by the AEME produced by the OEM/ Vendor?	
33	What Joint Service Specifications/ Joint Service Guidelines are being confirmed by the AEME produced by you?	
34	Which accredited laboratory (Indian/ International) has certified your AEME?	
	<u>Product Support</u>	
35	What is the warranty period offered for the AEME (in years and hours of operation)?	
36	Have you supplied the AEME to any other firm in India/ abroad? If yes, furnish details of the supply, including quantity.	
37	Does your firm have major repair and overhaul facility for major assemblies and component level repairs?	
38	What is the likely 'Service Life' of the AEME produced by your company?	
39	Is there a requirement of periodic calibration of any Special Machine Tools/ Special Test Equipment (SMTs/ STEs)? If yes, will you provide capability to undertake calibration, as part of Engineering Support Package?	
40	What kind of Engineering Support Package will you be offering? Please also mention cost implications, if any.	

Ser No	Specifications/ Parameters	Vendor Response
41	Will the Engineering Support Package cater for repairs of Special Test Equipment (STEs) also, to include spares, technical literature, training etc? If not, then what is your proposal for sustenance of Special Test Equipment's (STEs)?	
42	What life time support can be provided by the vendor?	
	<u>Maintenance/ Repair/ Upgradation Philosophy</u>	
43	What would be the Maintenance Philosophy for repair and maintenance of the AEME? Can it be aligned with the system of unit and Field level repairs prevalent in the Defence Services?	
44	Are you ready to provide AMC for for the equipment?	
45	Please provide inputs, including costs (as a percentage of the cost of the main equipment) for Comprehensive AMC and AMC without spares separately?	
46	Are you willing to provide Maintenance Transfer of Technology (MTotT) for sustenance of equipment as per requirements given at Appendix H to Schedule I to Chapter II of DAP 2020?	
47	What is the type of product support and period for which you commit the product support for sustenance of equipment in terms of supply of spares/ AMC/ calibration etc?	
48	How many sub vendors are involved in the manufacturing of product? Is product support from all sub vendors also assured for the same period, as committed by you?	
49	What would be the infrastructure & skill sets needed for maintenance?	
50	Does your AEME have Built in Test Equipment (BITE) to support diagnostics and repair through modular replacement?	
51	Is there any software applicable to your AEME? If yes, can it be restored in field in case of any fault? Is it upgradable? Whether open paper license is available or not?	
52	Does your equipment or any of its sub system have counter to display cumulative usage to facilitate usage based preventive/ period maintenance?	
53	What would be the training requirement for maintenance of the AEME at field level?	
54	List out the tools and accessories provided with the AEME.	
55	Is there any automatic diagnostic equipment available to check the health of engine, Hydraulics and sensors?	
56	Upgradation philosophy with respect to the AEME?	

Ser No	Specifications/ Parameters	Vendor Response
57	Elaborate upon the frequency and nature of upgrades recommended by you.	
58	Will software upgrades/ patches be provided whenever required?	
59	Is the equipment modular in construction to facilitate repairs in field by replacing defective module? What is the Mean Time to Repair (MTTR) fr repairs through replacement?	
60	What is the Mean Time Between Failure (MTBF) for the equipment and its main assemblies?	
61	Can you provide Indian origin generators and batteries where applicable?	
	<u>Training</u>	
62	Will you be able to offer Sectionised/ Cut Models, 3D models CDs for training? Elaborate the scope/ components covered.	
63	Have you developed a class room trainer and a Computer Based Training (CBT) package for training?	
64	Will you be able to provide IETM Version 4 or higher?	
65	What are the facilities available at OEM/ Vendor premises to conduct training?	
66	How will you assist in carrying out training for user, maintenance personnel and QA personnel?	
67	What is the recommended training period of maintenance and QA personnel and user/ crew?	
68	Can a user bilingual hand book, repair and maintenance manual and spare parts catalogue be provided with each AEME?	
	<u>Commercial Terms/ Cost</u>	
69	Please provide list of all the elements which need to be structured in the costing of the equipment system (including comprehensive maintenance/ product support package)	
70	What will be the estimated price of the complete AEME? Also mention the Minimum Order Quantity for the price quoted.	
71	Is DDP INCOTERMS acceptable to you? If not then what INCOTERMS 2020 are suitable/ preferred by your company and for what reasons?	
72	What is the approximate cost of the AEME as defined above in Indian Rupees (including taxes and duties)?	

Ser No	Specifications/ Parameters	Vendor Response
73	Please provide inputs on the cost of Engineering Support Package {which shall include Manufactured Recommended List of Spares (MRLS) for two years post warranty, Special Machine Tools (SMT)/ Special Test Equipment (STE), Training Aggregates, Technical Literature and Training} as a percentage of the cost of the main equipment along with details of taxes & duties applicable.	
74	Please provide an approximate cost (to include taxes and duties) of a similar commercial off the shelf version of the equipment, if it exists?	
75	Please provide a list of the features, included in this RFI which are not included in the commercial version along with the approximate cost implication for each individual feature?	
	<u>Time Schedule</u>	
76	What is your annual production capacity for the AEME? Is it likely to increase? What is the recommended 'Delivery Schedule'?	
77	What is the earliest timeframe by when the AEME can be delivered after placing of order?	
	<u>Miscellaneous</u>	
78	Are you an OEM of the equipment or an authorised vendor? If OEM, then forward your company profile?	
79	Will your firm be willing to supply the AEME to Indian Army under provisions of DAP-2020?	
80	What are the enhanced parameters/ specifications of AEME which can be offered?	
81	Are you willing to accept the Option Clause? Give the duration for which the clause would be valid?	
82	Have you supplied similar equipment as defined above to Indian Navy, Central Armed Police Force, Para-Military Forces or other Ministry of Defence Agencies (if yes please provide details of year of supply, quantities and specifications of product. Also specify if the supplied equipment is the COTS variant or bring out details of modifications)?	
83	Any other relevant information in terms of specifications/ terms of ref, the OEM/ Vendor would like to share.	

Appendix C

(Refers to Paragraph 6(c) of
Appendix B of Combat
Engineers Directorate letter No
80077/CE-5(B) dt Mar 22)

PERFORMA FOR REPLY TO RFI TO BE FOLLOWED1. **Name of the Vendor/Company/Firm.**

(Company profile including Share Holding pattern, in brief, to be attached)

2. **Type (Tick the Relevant Category).**

- (a) Original Equipment Manufacturer (OEM) Yes / No
- (b) Authorised Vendor of foreign Firm Yes/No
(attach details, if yes)
- (c) Other (give specific details)

3. **Contact Details.**

Postal Address

City: _____ State : _____

Pin Code: _____ Tele: _____

Fax: _____ URL/Website: _____ Email. _____

4. **Local Branch/ Liaison Office in Delhi (if any).**

Name _____ and _____ Address _____ :

Pin Code : _____ Tele: _____ Fax : _____

5. **Financial Details.**

- (a) Category of Industry (Large/medium/small Scale) :

- (b) Annual turnover: _____ (in INR).
- (c) Number of employees in firm : _____
- (d) Details of manufacturing infrastructure:

- (e) Earlier contracts with Indian Ministry of Defence/Government agencies:

Contract Number	Equipment	Quantity	Cost

6. **Certification by Quality Assurance Organisation.**

Name of Agency	Certification	Applicable from (Date & Year)	Valid till (Date & Year)

7. **Details of Registration.**

Agency	Registration No	Validity (Date)	Equipment
GeM			
DGQA/DGAQA/DGNAI			
OFB			
DRDO			
Any other Government Agency			

8. **Membership of FICCI/ASSOCHAM/CII or other Industrial Associations.**

Name of Organisation	Membership Number

9. Equipment/Product Profile (to be submitted for each product separately).

- (a) Name of Product : _____
(IDDM Capability be indicated against the product)
(should be given category wise for e.g. all products under night vision devices to be mentioned together)
- (b) Description (attach technical literature) : _____
- (c) Whether OEM or Integrator : _____
- (d) Name and address of Foreign collaborator (if any): _____
- (e) Industrial License Number: _____
- (f) Indigenous component of the product (in percentage): _____
- (g) Status (in service /design & development stage) : _____
- (h) Production capacity per annum: _____
- (j) Countries/agencies where equipment supplied earlier (give details of quantity supplied) Also specify if the supplied equipment is the COTS variant or bring out details of modifications. _____
- (k) Estimated price of the equipment _____

10. Alternatives for meeting the objectives of the equipment set forth in the RFI.

11. Any other relevant information: _____

12. Declaration.

(a) It is certified that the above information is true and any changes will be intimated within five (05) working days of occurrence.

(b) This information is being issued with no financial commitment and the Ministry of Defence, Government of India reserves the right to change or vary any part thereof, at any stage. The Government of India also reserves the right to withdraw it, should it be necessary at any stage. The acquisition process would be carried out under the provisions of Defence Procurement Procedure 2020 (as amended).

(Authorised Signatory)

Appendix D

{Refers to Paragraphs 6(c) & 9
of Combat Engineers
Directorate letter No 80077/CE-
5(B) dt Mar 22}

**QUESTIONNAIRE ON GUIDELINES FOR VENDOR SELECTION/
PRE-QUALIFICATION FOR INDIAN VENDORS**

1. Is the Applicant Entity an Indian Company as defined under the Companies Act 2013?
2. Has the Applicant Entity or any of its allied entities ever been banned or suspended by MoD/SHQ of any Government Department or Organisation? Details of vigilance action viz ongoing investigations by any Department/agency of Central Government may be provided.
3. Is the Applicant Entity a Manufacturing Entity or System Integrator or a Trading Company?
4. Does your Company have any previous experience/ expertise in this field? Specify the field of expertise/ experience of your company and the duration of experience in years.
5. Specify the turnover and net worth of your Company in the last three (03) years.
6. Is your Company under insolvency resolution as per Indian Bankruptcy Code?
7. What is the Credit Rating of your Company equivalent to CRISIL rating?
8. Does your Company qualify under Start Up or MSME Category?

