

EOI Ref: ASBD / ATT/ EOI/ 04/19-20

Date: 07.01.2020

Expression of Interest for collaboration with BEML Limited for Joint development /co-production with Technology transfer of Aircraft Towing Tractor (ATT) of Varied capacity following types- With tow bar, Tow bar less, Diesel operated and Electrically operated or Hybrid.

A. Introduction:

1. BEML Limited is a leading multi-technology and multi-location Mini-Ratna category-I company under the Ministry of Defence offering high quality products for diverse sectors of economy such as Defence, coal, mining, steel, cement, power, irrigation, construction, road building, metro & railways and aviation. It has emerged as the forerunner of heavy engineering industry with a track record of growth and revenues for over four decades. For further details please visit our website www.bemlindia.in

B. BEML has supplied diesel driven ATTs of 75 Ton class and 300 Ton class to both Armed Forces and civilian establishments for over 35 years. With rapid growth in Aviation sector and setting up of airports in tier- 2 cities of India, there is tremendous growth envisaged in all spheres of aviation including operations like Push back and Towing of aircraft of different load capacity. With major thrust to pollution control and green airfields, there is a major thrust in developing powerful compact ATTs with lesser emissions matching international standards. To meet these requirements of BEML is keen to play a major role by joining hands with global leaders for joint development with its capability and capacity to meet indigenous content in collaboration with potential partners.

C. Objectives of the Eoi:

To identify potential partners with whom collaboration can be established for joint development, cost-effective manufacture and marketing of ATTs of global standards for pushback/towing operation of small, narrow body and wide body aircraft.

D. Scope of the Collaboration

The partner will collaborate with M/s BEML to develop, manufacture and supply of ATT.

- a) Partner shall submit the configuration details of ATT as per the specified technical specification as per ANNEXURE-1 for jointly developing with M/s BEML and the collaborated partner will also jointly respond to RFQs in future.
- b) One vehicle has to be supplied on NC-NC basis with in 6 to 8 months from the date requested by the prospective customer, if so desired.
- c) BEML and selected Partner will jointly participate in User trials.
- d) BEML & selected partner will jointly provide the spares & maintenance support for the vehicle till the service life.

E. Desired product Specifications of the Army:

- a. **Configuration:** 4x2 and 4x4, Wheeled.
- b. **Engine:** Single unit diesel engine/ electrically driven.

c. **Mobility:**

I. Overall dimensions.

Length.	Depends on the requirement (without tow hooks)
Height.	Without cabin or without with 360-degree visibility.
Width.	Depends on the requirement
Weight.	Gross vehicle weight should be in proportionate to the drawbar pull and towing the class of aircraft all up weight.
Ground Clearance	Not less than 200 mm and not more than 230mm
Transportability	The ATT must be transportable by service aircraft (IL-76, C-130 & C-17) and in-service rail wagons (Bogie Open Military, Military Bogie Well Type).

- II. Power to Weight Ratio. Engine should have power to weight ratio of minimum 25 HP/Ton (Better engine performance and a higher power to weight ratio is desirable).
- III. Carriage of crew: Crew of 2 persons (operator and co-operator/passenger).
- IV. Speed: Should be able to move both on road and Tarmac with speeds upto > 30Kmph & > 30 Kmph respectively. Should have a reverse speed > 20 Kmph on road.
- V. Transmission: Power shift Transmission with minimum 2F/2R gear system
- VI. Suspension: Front is rigid and rear with Leaf spring or any advanced suspension
- VII. Steering: Power steering with 4WS / 4WD / or Two wheel steerable (as required)
- VIII. Braking System: Dual Fail-safe brake system.
- IX. Tyres: All terrain suitable tyres.
- X. Self-Recovery: Independent self-recovery Mechanism with motor assisted winch must be provided (capable of self-wincing from a minimum dist. of 15 m).

d. **Communications:** Intercom facilities

e. **Fire Fighting System:** Fire extinguishers of 2 kg capacity of 2 Nos.

Temperature Control System: The vehicle should be equipped with a temperature control system capable of maintaining an inside vehicle temperature of 24°C + 4°.

Stowage: In addition provision for facilitating internal stowage must be provided/ considered.

f. **EMI/ EMC Compatibility:**

The vehicle should be compliant to:-

- I. The entire vehicle system should be Military Standard 464C compliant.
- II. EMI/ EMC compliance as per Military Standard 461E.

g. **Service Life.**

- I. Vehicle service life of 30 yrs.
- II. Engine service life of 1000 hrs.
- III. Operating temperature minimum 0° to +05°C and maximum 40° to 45° C.

F. Eligibility Criteria for responding to this EOI

The following are the mandatory conditions to be fulfilled by the firm for responding to the EOI.

- a. Should be a registered firm with global reputation
- b. Should have demonstrable experience of more than 15 years developing/customizing ATTs. Dealers/distributors/agents/representatives need not respond.
- c. The firm should have demonstrated the equipment to its own country's military or civil agencies or other reputed countries and should have been accepted or shortlisted.
- d. The firm shall be willing to modify the equipment to the customer's need and coproduce the equipment in BEML's plant in India.
- e. The OEM should be able to get the export clearance from its government for selling the equipment to the Indian defence.
- f. BEML will have the sole right to market the product in India both for military and civil markets as also export on mutual consent for exports to other countries.
- g. The firm shall accept co-branding of the product.

The partner shall fill the Eligibility Criteria for responding to this EOI as mentioned in ANNEXURE-2 with supporting document/certificate if required.

G. Presentations on proposed Products/Solution/ Methodology

The firms shortlisted based on the eligibility criteria may be invited to make a presentation at a date, time and location notified by BEML. The purpose of the presentation would be to allow the participants to present their products/solution/ methodology, experience, capabilities, infrastructure, and other key points, if any.

H. Submission of the EOI

The EOI shall be submitted on or **before 14:00** hours of **06.02.2020** with all the formats duly filled. EOI in sealed covers stating compliance to all the points **should be sent to the following address super scribing the EOI reference and closing date to the following address.**

General Manager –Corporate Materials

Room No. 2, BEML Soudha,

23/1, 4th main, S R Nagar,

Bangalore-560 027

Karnataka,

India.

Tel (Off): +91-80-22963179

Email: gmcm@beml.co.in

For any further details you may contact the following official

Name : Sridhara S R
Designation : General Manager
Mobile : 9902477767
Phone : 080-22963206
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Annexure-1
Product Specifications

SI No	Technical parameter	Collaborator product specification
1	Configuration	
2	Engine	
3	Overall dimensions and aggregate specification	
3.1	Length.	
3.2	over all Height of the vehicle	
3.3	Width.	
3.4	Weight.	
3.5	Ground Clearance	
4	Transmission	
5	Suspension	
6	Steering	
7	Braking System	
8	Cruising Range	
9	Speed	
10	Tyres	
11	Carriage of crew	
12	Transportability	
13	Driver vision	
14	Communications	
15	Fire Fighting System	
16	Temperature Control System	
17	Entry / Exit For Crew	
18	Stowage	
19	EMI/EMC Compatibility	
20	Service Life of Vehicle and Engine	
21	Operating temperature of the vehicle	

ANNEXURE-2
Eligibility Criteria for responding to this EOI

SI No	Eligibility Criteria	Collaborator response with supporting document/certification
1	The firm Should be a registered with global reputation not placed on the restricted list for arms import.	
2	Should have demonstrable experience of more than 15 years developing/customizing ATTs for military /civil applications. Kindly submit certificate/document for the same	
3	The firm should have demonstrated the equipment to its own country's military/civil customers or to other reputed countries and should have been accepted or shortlisted.	
4	The firm shall be willing to modify the equipment to the customer's need and coproduce the equipment in BEML's plant in India.	
5	The firm shall interested to transfer the technology to BEML to locally produce the parts/assemblies.	
6	The OEM should be able to get the export clearance from its government for selling the equipment to the Indian defence, kindly produce the certificate	
7	BEML will have the sole right to market the product in India for military, civil and export on mutual consent for exports to other / neighbouring countries.	
8	The firm shall accept co-branding of the product.	
9	Brief description on company profile covering below aspects: 1. Products profile. 2. Annual turnover of the company. 3. Board of directors. 4. Head Quarters. 5. Branches in India	