

M/s. BEML LIMITED,

R & D

Invitation for Expression of Interest (EOI) for Development of Futuristic Technology / Aggregates and upgradation of Technology / Features on BEML Equipment

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|---|---|-----------------------|-------------------|--------------------|-----------------|
| EOI Reference | Ref. No. BEML/EOI/TP dt 16.08.2023 | | | | |
| EOI closing date | Closing date : 16 - 09 - 2023, Time : 17:00 Hrs. | | | | |
| EOI response mail Id | bemleoi@beml.co.in | | | | |
| Contact for technical clarifications | Name | Designation | Contact no | E – Mail id | Category |
| | Mr. Hemanth Kumar (Mining & Construction Equipments) | General Manager | 9480233261 | g.d@beml.co.in | Technical |
| | Mr. Shashikanth (Rail & Metro) | Chief General Manager | 9731397825 | kcs@beml.co.in | |
| | Mr. N. Ramesh (Defence) | General Manager | 9480616027 | gmbd@beml.co.in | |
| | Mr. Sekar. V | Chief General Manager | 9740956224 | g@beml.co.in | Eoi |

Expression of Interest **BEML Limited**

Sub: Development of Futuristic Technology / Aggregates and upgradation of Technology / Features on BEML Equipment, with reputed Manufacturers for Mutual Business Growth.

1.0 Objective :

1.1 BEML is venturing out to expand its footprint in the local and International market, by partnering with reputed domestic and global Original Equipment Manufacturers (OEM) in the sectors of Defence & Aerospace, Rail & Metro, Mining & Construction, for developing futuristic technology and aggregates, by mutual sharing of Technology, Expertise, Manpower, Infrastructure etc., in Joint Development for mutual business growth.

2.0 Brief on BEML Limited :

2.1 BEML Limited is a listed company of Central Public Sector Enterprise under the Ministry of Defence (MoD) which was incorporated in the year 1964. BEML is having a state-of-the art, well established and dedicated Research & Development, Product Design, Manufacturing Facilities, Assembly Shops for Equipment and Aggregates, Testing facilities etc. The Company is backed with a strong and well experienced skilled manpower in the areas of Mining & Construction, Defence & Aerospace and Rail & Metro equipment. The turnover of the Company is around Rs 4000 crores.

2.2 BEML has three business verticals viz., Defence & Aerospace, Rail & Metro and Mining & Construction, with four manufacturing complexes located at Bengaluru, Kolar Gold Fields (KGF), Mysuru and Palakkad. Apart from this, BEML has its own world-class composite R&D establishment for Design & Development of products.

2.3 All the manufacturing divisions of BEML have been accredited with ISO 9001 - 2015 and ISO 14001 (HSC) certification.

2.4 The Company is backed by a strong and well established after Sales & Service network right at the Customers' sites, spread across the length and breadth of India. Marketing Network includes dedicated ware houses at various places and Service Centre facility at strategic locations for extending efficient and quick support to customers. In addition, BEML has a well-established and exclusive International Business Division to cater for export business. Detailed information of BEML Ltd is also available On-Line at www.bemlindia.in

2.5 Mining & Construction :

2.5.1 BEML Ltd is engaged in the business of Hydraulic Excavators, Bulldozers, Wheel Loaders, Wheel Dozers, Dump Trucks, Motor Graders, Pipe Layers, Tyre Handlers, Water Sprinklers and Backhoe Loaders to customers in the Mining and Construction segments.

2.5.2 BEML has also developed Diesel-electric Mining Dump trucks of 150 Ton and 200 Ton class and Excavators of both Hydraulic and Electrical of 180 Ton capacity.

2.6 Defence & Aerospace :

2.6.1 BEML Ltd is engaged in the business of High Mobility vehicles for all terrain operations, Heavy Recovery Vehicle, Pontoon Mainstream Bridge Systems, Crash Fire Tenders, Mobile Mast Vehicle, Engineering Mine Ploughs, Tank Transportation Trailers, Weapon Loading equipment, Armoured Recovery Vehicle, Milrail Coaches and Wagons, ground support vehicles and other products to the Indian and other Armed Forces.

2.7 Rail & Metro :

2.7.1 BEML Ltd is engaged in the business of Integral Rail Coaches, Overhead Inspection Cars, AC/DC Electrical Multiple Units, Stainless steel EMUs, Utility vehicles, Track Laying Equipment, Broad-gauge Rail bus, Treasury Vans, Spoil disposal Units to the Indian and other Railways.

2.7.2 BEML Ltd has also successfully diversified into manufacturing state-of-the-art technology stainless steel Metro Cars for various urban Metro Corporations and enjoys a dominant market share in this segment

2.8 Research & Development :

2.8.1 BEML Ltd has R&D establishment for Design & Development of high-tech engineering products for its three verticals. It employs over 350 professionals with high experience and skills spanning a wide range of technology areas.

2.8.2 R&D establishment has CAD Centre, Fluid-power, Powerline, Structural Engineering & Material Science laboratories and is continuously engaged in New Product Development and upgradation of existing products to meet customer requirements. More than 65% of Company's Sales Turnover is through in-house developed R&D products. The R&D expenditure is around 2 - 3% of its turnover.

2.9 International Business Division :

2.9.1 BEML has a sizeable market share in export markets with exports to 70 countries across the globe. Over the years this division has exported over 1200 machines covering all the three verticals.

3.0 **Proposal of Strategic Partnership** :

3.1 BEML is exploring strategic partnerships with reputed Original Equipment Manufacturers (OEMs) with strong experience to Jointly develop futuristic Technology & Manufacturing in the area of Powertrain and Hydraulic Systems or aggregate for Mobile applications in the field of Defence & Aerospace, Rail & Metro, Mining & Construction application few of which are given below :

- (a) Diesel / CNG / LNG / Dual Fuel Engines
- (b) Non-Fossil Fuel Engines /Hydrogen Fuel cell Technology
- (c) Powershift /Automatic/ Electronically controlled Transmissions
- (d) Axles / Final Drive
- (e) Electric Drive Systems
- (f) Hybrid Powertrain
- (g) Hydraulic Cylinders with advanced technology
- (h) Mobile Hydraulic Systems (consisting of Piston Pumps / Motors, Control Valves, Servo Valves, Manifold Blocks etc.)
- (i) Light Rail Transit Vehicle (LRT)
- (j) Aluminium car body for rolling stock
- (k) Articulated Bogie & Tilted Bogies for High Speed trains
- (l) Any other related Higher & latest Technology driven products.

4.0 **Qualification Criteria for EOI** :

Respondent should have qualification criteria as indicated below. Also shall submit qualification matrix input as per Annexure -A

4.1 Desiring OEM's (Company) who have a wide experience of minimum 15 years in Design, Manufacturing and supply of aggregates / technology, some of which are listed above, in the field of Mining & Construction, Defence & Aerospace and Rail & Metro, may Express their Interest in jointly working with BEML. Documentary proof of the same shall be submitted.

4.2 The Company should have had a cumulative turnover of minimum Rs 5000 crore in the past 5 years. Authenticated certificate issued by Authorised & Licensed Chartered Accountant with self-declaration shall be submitted.

4.3 The Company shall submit Quality Certificates such as ISO 9001, ISO 14000 or any other relevant certificates.

4.4 The Company should have a well-established R&D infrastructure for the development of new technology, with a manpower of minimum 8% of their total manpower.

4.5 The company should be interested to associate with BEML in any of the following mode or co-operation :

- (a) Joint Manufacturing.
- (b) Providing Manufacturing license to BEML.
- (c) Providing Technology license to BEML.
- (d) Transfer of Technology (ToT) arrangement.
- (e) New Technology Development by joint working.
- (f) Any of the above or combination of above is also acceptable.

4.6 Willingness to share with BEML any up-gradations / improvements made during the period under which the joint working arrangement is effective.

4.7 Willingness to train a strong core technology team of Engineers from BEML Limited.

4.8 Willingness to develop indigenous technology / product with minimum indigenous content of 30%.

4.9 Submission of Undertaking that the company has not been debarred / blacklisted by Government of India / any State Government in India/Central or State Government undertaking.

4.10 Submission of undertaking regarding number of arbitration cases pending and details regarding the same, if any.

5.0 Evaluation Criteria for EOI :

5.1 Respondent should consider the following also, while submitting the response to have a higher weightage. Also, shall submit evaluation inputs as per Annexure B1 & B2

(a) Prospective partner shall enter into a mutually agreed long-term Supply Agreement and meet the expected delivery requirements and other Terms & Conditions of the agreement.

(b) Prospective partner should be willing to associate with BEML for conducting the Field Evaluation Trials of new/upgraded products conducted by various agencies.

(c) Prospective partner would be required to support BEML during interactions with various agencies in India for initial screening, participation in the customer RFP / Tender and subsequent qualification process by way of deputing their experts to BEML and providing the required information and clarifications as required/sought by customer.

(d) Prospective partner shall provide firm and irrevocable commitment to provide new Technology / product support in terms of Design, Maintenance, Materials and Spares etc. for a minimum period of 15 years from the date of last supply to BEML.

(e) The IP rights of the jointly developed technology / product to be shared by both BEML and the prospective partner. The Cost of IP rights of jointly developed technology/product to be borne jointly by BEML and the prospective partner.

(f) Prospective partner shall execute separate technology / product development agreement for each and every technology / product that is being developed jointly.

(g) Prospective partners having a better and specialised expertise or higher technology for the existing products of BEML, same may be indicated in the bid. BEML product portfolio is available in BEML website: www.bemlindia.in

(h) Prospective partners showing interest to develop indigenous product / specialised new technology pertaining to BEML existing product range will be given weightage during selection process of the partner by BEML.

5.2 Prospective partner is required to confirm that in case of getting shortlisted as a result of this EoI process, following support shall necessarily be provided :

(a) Carryout Continual design and process improvement towards achieving cost reduction.

(b) To provide strategic pricing to BEML at mutually agreed percentage share of the newly developed or higher technology aggregates.

(c) To provide transparent costing elements required for preparation of competitive offer against customer RFP.

(d) To provide strategic pricing for spare parts against prospective partner's Distributor/Dealers/Service Centres.

(e) To provide a price list with long term validity of minimum 5 Years with Price Variation Clause for assemblies / subassemblies / components / spares / Manufacturer's Recommended List of Spares etc. for items to be sourced from prospective partner.

(f) Above mentioned requirements are only indicative in nature and not exhaustive, however any other document/information/input required by BEML shall have to be provided by the prospective partner based on mutual discussion/agreement for mutual business growth.

6.0 **Benefits of partnering with BEML :**

6.1 BEML has an extensive Marketing network, backed up with many Service Centers pan India and abroad. BEML has a strong R&D in all business verticals which has developed high end Mining and Construction equipment such as 150 & 200 Ton Dumpers and 180 Ton Excavators, to name a few high end products. BEML has delivered more than 1600 Metro Cars and has a dominant market share in India.

6.2 BEML is having a vast Land bank at Bangalore, Mysore, Kolar Gold Fields and Palakkad, which is a great opportunity to partner for a Make in India Park for self-reliance through indigenization in line with “Make in India” vision of Honorable Prime Minister of India. The products manufactured through partnership may also be exported to other countries.

6.3 With extensive manufacturing facilities spread across India, a highly skilled and experienced manpower, presence and reach through its wide network of offices and divisions in India and a successful model of partnering with other reputed OEMs, BEML is ideally placed to be the partner of choice in India for cooperation, mutual business growth, by developing futuristic technology and widening the customer base.

7.0 EoI Submission :

EoI to be submitted online through email- bemleoi@beml.co.in stating compliance to each points, along with the enclosures, super scribing IN THE E MAIL SUBJECT "[Development of Futuristic Technology / Aggregates and upgradation of Technology / Features on BEML Equipment](#)"

CLOSING DATE : 16.09.2023, Time : 17 : 00 HRS

QUALIFICATION MATRIX

| SL.NO | CRITERIA | RESPONSE |
|-------|--|----------|
| 1 | Is the respondent firm an Original Equipment Manufacturer | |
| 2 | The respondent should have supplied aggregate / technology for equipment used for Mining & Construction, Defence & Aerospace and Rail & Metro application for the last 15 calendar years. | |
| 3 | The respondent should have the cumulative turnover of minimum 5000 crore Indian Rupee for the past 5 years. | |
| 4 | Willing to partner as a Joint manufacturing or Manufacturing licence provider or Technology Licence provider or Transfer of technology provider or New technology development through joint working. | |
| 5 | The respondent firm is Willing to share with BEML any up-gradations / improvements made during the period under which the joint working arrangement is effective | |
| 6 | The respondent firm is willing to train a strong core technology team of Engineers from BEML Limited | |
| 7 | The respondent firm is willing to develop indigenous technology / aggregate with minimum indigenous content of 30%. | |
| 8 | Has the respondent firm been debarred / blacklisted by Government of India / any State Government in India/Central or State Government undertaking. | |
| 9 | The respondent firm have submitted the undertaking regarding number of arbitration cases pending and details regarding the same | |
| 10 | The firm submit Quality Certificates such as ISO 9001, ISO 14000 or any other relevant certificates. | |
| 11 | The respondent has well established R&D infrastructure for the development of new technology. The R&D manpower should be about minimum 8% of their total manpower. | |

Responder shall submit documentary evidence for compliance of above parameters

EVALUATION MATRIX

| DIMENSION | EVALUATION WEIGHTAGE | PARAMETER | CRITERIA | RESPONSE |
|--|----------------------|---|---|----------|
| Fit with EoI Technology / Aggregate Requirement 50% | | Manufacturer of Diesel Engines | Yes/No | |
| | | Non-Fossil Fuel Engines /Hydrogen Fuel cell Technology | Yes/No | |
| | | Manufacturer of Transmission | Yes/No | |
| | | Manufacturer of Axle | Yes/No | |
| | | Manufacturer of Mobile hydraulic system | Yes/No | |
| | | Manufacturer of Electric drive system | Yes/No | |
| | | Manufacturer of Hybrid powertrain | Yes/No | |
| | | Light Rail Transit Vehicle (LRT) | Yes/No | |
| | | Aluminium car body for rolling stock | Yes/No | |
| | | Articulated Bogie & Tilted Bogies for High Speed trains | Yes/No | |
| | | Any other field | Yes/No | |
| R&D Capability | 20% | R&D calibre | No of manpower in R&D | |
| | | | Ratio of R&D manpower to Total manpower | |
| | | | No. of Patents granted | |
| | | R&D Investment | Minimum 3% of the turnover | |
| Partnership mindset & Credibility | 15% | Global presence (i.e., exports) | No.of countries with active annual sales equivalent to minimum of 50 crore Indian rupee | |
| | | Track record of previous partnerships (JVs/MoUs) | No.of JVs/MoUs/ToTs in last 10 years | |
| Financial health and performance | 15% | Historical health (leverage and capital structure ratios) | Capital structure ratio (D/E) | |
| | | Revenue and growth in last 5 years | FY17-20 Revenue CAGR | |
| | | Margins (gross, EBIT, EBITDA) | FY20 EBITDA margin | |

Responder shall submit documentary evidence for compliance of above parameters

EVALUATION MATRIX

| SL.NO | CRITERIA | RESPONSE |
|-------|--|---------------------|
| 1 | Willingness to enter into a mutually agreed long-term Supply Agreement and meet the expected delivery requirements and other Terms & Conditions of the agreement | YES / NO |
| 2 | Willingness to associate with BEML for conducting the Field Evaluation Trials conducted by various agencies | YES /NO |
| 3 | Willingness to support BEML during interactions with the various agencies in India for initial screening, participation in the customer RFP / Tender and subsequent qualification process by way of deputing their experts to BEML and providing the required information and clarifications as required/sought by customer. | YES / NO |
| 4 | Shall provide firm and irrevocable commitment to provide Technology / product support in terms of maintenance, materials and spares etc. for a minimum period of 15 years from the date of last supply to BEML. | Agreed /Not agreed |
| 5 | The IP rights of the jointly developed technology / product to be shared by both BEML and the prospective partner. The Cost of IP rights of jointly developed technology/product to be borne jointly by BEML and the prospective partner. | Agreed / Not Agreed |
| 6 | Shall execute separate technology / product development agreement for each technology / product development activity. | Agreed /Not agreed |
| 7 | Should carryout Continual design and process improvement towards achieving cost reduction. | Agreed /Not agreed |
| 8 | Provide strategic pricing to BEML Limited at mutually agreed percentage share of the aggregate on BEML equipment pricing against tender. | Agreed /Not agreed |
| 9 | Provide transparent costing elements required for preparation of BEML offer against customer RFP. | Agreed /Not agreed |
| 10 | Provide a price list with long term validity with Price Variation Clause for assemblies / subassemblies / components / spares / Manufacturer's Recommended List of Spares etc. | Agreed /Not agreed |
| 11 | Provide strategic pricing for spare parts against prospective partner's Distributor/Dealers/Service Centres. | Agreed /Not agreed |