



Ref. No. FSIP/EOI/NBD/2022-002

Date: 26.04.2022

Expression on Interest

Subject: Selection/Empanelment of a partner/collaborator for a Business Partnership/sharing on Defence Products at BHEL FSIP Jagdishpur Unit

This has reference to the Expression of Interest (Eol) published on BHEL's website www.bhel.com for a Selection/Empanelment of a partner for a business for Defence Products to enable BHEL FSIP Jagdishpur to design, engineer, manufacture, assemble, integrate, quality control, test, supply, install, erect, commission, maintain, operate, repair, overhaul/retrofit, service, troubleshoot and sell Defense Products, Ministry of Defence (MoD) requirements.

1) Introduction:

This Expression of Interest (Eol) seeks responses from prospective collaborators who are Original Equipment Manufacturers (OEMs), fulfilling all the requirements of this Eol, and are willing to be associated with Bharat Heavy Electricals Limited (BHEL) through a Empanelment for business to enable BHEL to design, engineer, manufacture, assemble, integrate, quality control, test, supply, install, erect, commission, maintain, operate, repair, overhaul/retrofit, service, troubleshoot and sell "Defence Products", to meet Ministry of Defence (MoD) requirements.

BHEL is a leading state-owned company wherein the Government of India is holding 63.17% of its equity. BHEL is an integrated power plant equipment manufacturer and India's largest engineering and manufacturing enterprise of its kind, catering to the core infrastructure sectors of Indian economy viz. energy, transportation, heavy engineering industry, renewable & non-conventional energy and Defence. BHEL has been in the business for more than 55 years and BHEL supplied power equipment account for more than 57% of the total thermal generating capacity in India. BHEL is also listed in stock exchanges of India. The company has 16 manufacturing units, 4 power sector regions, 8 service centers, 1 overseas office and 15 regional offices besides host of project sites spread all over India and abroad. The annual turnover of BHEL for the year 2018-19 was around US \$ 4 Billion. BHEL's highly skilled and committed manpower of approximately 35000 employees, the state-of-art manufacturing facilities and practices together with the latest technologies, have helped BHEL to deliver a consistent track record of performance. To position leading state-owned company as Global Industrial giant for their exemplary performance, the Government of India categorized BHEL as "Maharatna Company" in 2013, empowering the company with enhanced autonomy in decision making. With the current order book exceeding US \$ 15 Billion*, BHEL is poised for excellent future growth. Our ongoing major technology tie-ups include agreements with Siemens, Germany (for steam turbines, generators and condensers); MHI, Japan (for Pumps); MHPS, Japan (for Flue Gas Desulfurization Systems); Vogt Power International, USA (for HRSG); Indian Space Research Organization (ISRO) (for Space Grade Lithium-Ion Cells); NANO Company Ltd., Korea (for SCR Catalysts); HLB Power Company Ltd., Korea (for Gates and Dampers); Kawasaki Heavy Industries, Japan (for Stainless Steel Coaches for Metros) and Babcock Power Environmental Inc., USA (for Selective Catalytic Reduction Systems). More details about the entire range of BHEL's products and operations can be obtained by visiting our website <http://www.bhel.com>.

BHEL has also emerged as a reliable supplier of strategic equipment and services to Indian Defence forces for over 25 years. BHEL has a large infrastructure including dedicated engineering and manufacturing facilities at many locations to manufacture various types of equipment and provide complete services to meet the Indian defense requirements. BHEL has supplied to the defense forces 76/62 Super Rapid Gun Mount, Armored Recovery Vehicles, Simulators, Control System for Tanks, and Integrated Platform Management System for Ships, casting and forgings etc. Ministry of Defence, Govt. of India has nominated BHEL as the Production Agency for indigenous manufacture of 30 mm Naval Surface Gun in association with selected OEMs under Transfer of Technology. Heavy Electrical Equipment Plant (HEEP), one of the major manufacturing units of BHEL located at Haridwar, Uttarakhand is manufacturing Naval Guns for Indian Navy since 1994.



About Fabrication Stamping & Insulator Plant (FSIP) unit of BHEL

BHEL FSIP, Jagdishpur is spread over about 150 Acre area, located in Amethi District of Uttar Pradesh, 80 Kms away from Lucknow on Lucknow-Varanasi National high-way and is well connected by railroad and air as well.

FSIP unit involve in the manufacturing of Power plant Structures, Stamping for traction motors & generators and High tension Porcelain Insulators, Ceramic wear resistant lined components & liners.

FSIP has well-established manufacturing systems and procedures and has the requisite skilled and experienced manpower. The Units are certified for the Quality Management System against ISO-9001:2015 and Health, Safety & Environmental Management (HSE) System for ISO-14001:2015 & ISO-45001:2018. The products of FSIP are tested and certified with respect to relevant National & International standards at reputed laboratories.

BHEL has a very strong R&D infrastructure with 10 Labs as a Center for excellence. The operations of FSIP are supported by BHEL Corporate R&D.

Power is sourced from local state utility at 11kV/33kV with an in-house backup generation facility and fuel is environment-friendly Natural Gas is sourced through Hazira-Bijapur-Jagdishpur (HBJ) gas pipeline.

2) Present Expression of Interest:

BHEL is looking for collaboration for the “Defense Products” as defined in the clause: 3

Based on this Eol process, BHEL intends to shortlist and select/empanel suitable partner/s for the Business sharing on the “Defence products” as per the requirement of MoD. The scope of work will be as per the indicative scope at **Annexure-1**.

BHEL shall receive applications pursuant to this Eol in accordance with the terms set forth herein, as modified, altered, amended, and clarified from time to time by BHEL, and all Applications shall be prepared and submitted in accordance with such terms on or before the date specified in this Eol for submission of applications.

3) Definition of the Defence Products:

The definition of the Defence products shall be as follows

- a. Portable Helipad,
- b. Anti-Blast Floor,
- c. Small Arms and Ammunition
- d. Bullet Proof Jackets & Helmets
- e. Vehicle armoring
- f. Composite/ceramic parts for Defence
- g. High Altitude Shelter for Defence

The defense products shall be considered any one or combination of all products listed above.

4) Scope of cooperation:

BHEL seeks a prospective collaborator for empanelment for entering into indigenously manufacturing of the “Defence Products” in order to address the requirement of MoD. The indicative scope of collaboration is given in **Annexure-1**.

5) Obligations of Prospective Collaborator(s):



The obligations of the selected partner(s), inter alia, shall be as below:

- A) Prospective partner would be empaneled with BHEL to associate with BHEL for Development/manufacturing the Defense Products.
- B) Prospective collaborator(s) for “Defence Products” shall support BHEL in the integration of their respective product to enable BHEL to supply the complete defense solutions.
- C) Prospective Collaborator(s) may also be required to work with BHEL to meet the expected delivery requirements and other Terms & Conditions of RFP to be issued by MoD on back to back basis.
- D) Prospective Collaborator(s) would be required to successfully meet the Field Evaluation Trials of the “Defence Products” to be carried out by MoD as per terms of RFP to be issued by MoD. Salient points pertaining to Field Trials are as given below:
 - 1) For a Bidder to be accepted/pre-qualified by MoD it is mandatory that the Rapid successfully clears all the tests/trials/evaluations as per MoD requirements. The trial evaluation process generally comprises (shall include but not limited to) of:
 - a) User Trial
 - b) Technical/ Environmental Evaluation trial
 - c) Maintainability evaluation trial
 - d) EMI/ EMC evaluation trial
 - 2) The prospective collaborator(s) shall be required to provide the desired Unit(s) of Defence for Field Evaluation Trials and Acceptance by MoD in varying climatic altitude and terrain conditions in India. A staff evaluation will be carried out by MoD which will give the compliance of the demonstrated performance of the equipment vis-à-vis the requirements of MoD.
 - 3) Trials will be conducted as per the requirements of RFP to be issued by MoD. Any modification/rectification required during the trials to meet MoD specifications would be carried out by the prospective collaborator.
 - 4) Prospective Collaborator(s) would be required to manufacture/arrange the prototype of Defence Products and carry out field trials as per MoD requirements of NoCost No Commitment (NC-NC) basis. BHEL may consider sharing the financial burden associated with the NC-NC trials. Details of sharing of such financial burden shall be mutually agreed upon between the parties. Since BHEL has vast infrastructure and manufacturing facilities spread pan India, may also be used for expediting the manufacturing of Prototype or making any modifications during trials.

Prospective Collaborator may include the details of the step involved and indicate the proposed work share for carrying out field trials at **Annexure-2**.

- 5) Prospective Collaborator(s) would be required to support BHEL during interactions with the MoD for initial screening, participation in the RFP and subsequent qualification process by way of deputing their experts to India and providing the required information and clarifications as required/sought by MoD.
- 6) Prospective Collaborator shall provide a firm and irrevocable commitment to provide product support in terms of maintenance, materials, spares, etc for a minimum period as specified in RFP to be issued by MoD.
- 7) Prospective Collaborator is required to confirm that in case of getting shortlisted as a result of this Eol process, the following support shall necessarily be provided to BHEL in order to enable BHEL to prepare and submit a competitive techno-commercial bid to MoD as per the terms of the RFP (& other requirements as applicable) and also to successfully execute the contract in case of BHEL emerging as L1 bidder;



- a) To provide costing elements required for preparation of BHEL offer against RFP. Costing elements to cover the details of major materials used in Defense Products manufacturing process, facilities including major machines, assembly & special test equipment, special processes, and other suitable details on shop layouts and any other pertinent details. The information to include known supplier sources for such facilities/equipment.
- b) To provide a price list with long-term validity with Price Variation Clause for assemblies/subassemblies/components/spares/Manufacturer's Recommended List of Spares (MRLS) etc. for items to be sourced from prospective collaborator.
- c) Any other requirement felt necessary as per RFP issued by the Indian Army/MoD.

Above mentioned requirements are only indicative in nature, however, any other document/information/input required by BHEL for cost estimation and for preparation & submission of techno-commercial bid to MoD shall have to be provided by the prospective collaborator.

6) Selection of Prospective Collaborator(s):

Based on the information provided under this Eol, the prospective collaborator(s) shall be shortlisted on the basis of the Details/Information specified in **Annexure-3**.

7) Brief Description of Eol Process:

The interested prospective collaborator(s) shall ensure that their response(s), along with details requested as per the Annexures of this Eol, is (are) received by BHEL. The response(s) shall necessarily be accompanied by details on company background, technical features/ product catalog, reference list, annual audited financial reports for the last 3 (three) years including auditor's report and other enclosures as required under the present Eol. The responding prospective collaborator(s), on submission of their response(s), can be called for further discussions at a short notice.

Date of commencement of the EOI: 26.04.2022

Date of End of the EOI: 17.05.2022

The prospective collaborator(s) should respond to BHEL's Questionnaire placed at **Annexure-2** and **Annexure-4** on various parameters of Defense products. For convenience and ready reference, a checklist of documents to be submitted has also been placed at **Annexure-5**.

The respondent shall submit their offer with all Annexures duly signed. In case any further information is needed, kindly feel free to contact us. In case any amendment/ corrigendum is issued this Eol, it shall be notified only at www.bhel.com.

8) Schedule of Eol & Contact details:

7.1 Schedule of Eol:

The schedule of Eol shall be as follows:

S No.	Description	Date
1.	Issue of Eol Document	26.04.2022 Tuesday
2.	Due Date for submission of Eol response	17.05.2022, Tuesday

7.2 Contact Details:

The respondent shall submit/send their offer with all annexures duly signed at the following address:

Sr. Dy. General Manager
New Business Development
Fabrication Stamping & Insulator Plant



Bharat Heavy Electricals Limited
I.A. Jagdishpur, Amethi-227817, U.P.
Mob: +91 98712190198
Email: kumar_surendra@bhel.in

9) Miscellaneous:

A. Right to accept or reject any or all Applications:

- 1) Notwithstanding anything contained in this Eol, BHEL reserves the right to accept or reject any Application and to annul the Eol Process and reject all Applications, at any time without any liability or any obligation for such acceptance, rejection or annulment, and without assigning any reasons therefore. In the event that BHEL rejects or annuls all the Applications, it may, at its discretion, invite all eligible OEMs/Suppliers to submit fresh Applications.
- 2) BHEL reserves the right to disqualify any Applicant during or after completion of Eol process, if it is found there was a material misrepresentation by any such Applicant or the Applicant fails to provide, within the specified time, supplemental information sought by BHEL.
- 3) BHEL reserves the right to verify all statements, information and documents submitted by the Applicant in response to the Eol. Any such verification or lack of such verification by BHEL shall not relieve the Applicant of his obligations or liabilities here under nor will it affect any rights of BHEL.

B. Governing Laws & Jurisdiction

The Eol process shall be governed by, and construed in accordance with, the laws of India, and the Courts at New Delhi (India) shall have exclusive jurisdiction over all disputes arising under, pursuant, to and/or in connection with the Eol process.



Annexure-1

Indicative Scope of Collaboration

a)	Design, engineer, manufacture, assemble, integrate, quality control, test, and supply, maintain, installation, erection, commission, operate, repair, overhaul/retrofit, service, and troubleshoot the Defence Products.
b)	Sourcing the technology as per requirement of the “Defence Products”
c)	Improvements/modifications/development upgradations carried out by the prospective collaborator over the duration of the collaboration for taking care of new market requirements and obsolescence of components used in the system
d)	Assistance in planning & setting up of the facilities by way of expert advice in terms of identifying, sizing & selection of equipment required for manufacturing and assembly, their layout and foundation, etc.
e)	Assistance for establishing manufacturing processes, commissioning of the manufacturing facilities, design of special tools and dies, jigs & fixtures, etc. by way of deputation of experts for an agreed number of man-days as and when required by BHEL.
f)	Site feedback and troubleshooting information.
g)	Training in the design, manufacture, assembly, quality control/quality assurance, testing, installation, commissioning, maintenance, operation & retrofitting.
h)	Deputation of prospective collaborator’s experts to assist BHEL
i)	Support through engineering services from prospective collaborator’s design office / Manufacturing facilities for “Defence Products”.
j)	Transfer of information to enable BHEL to source/procure those items, which the prospective collaborator sources from outside (as they are not manufactured by the prospective collaborator) for use in the “Defense Products”
k)	Exchange information on Critical Technologies as identified by MoD in the RFP.

(SIGNATURE)



Annexure-2

2.1 Proposed Workshare matrix for step involved/ Infrastructure/support required for Field Trials

Sl. No.	Step involved/ Infrastructure/ support required	Collaborator	BHEL	Remarks/ place of activity
1.	Manufacture of "Defense products as given in clause:3			
2.	Integration of the Defense product, if required			
3.	Integrated Testing & proving a complete system as per RFI/RFP/PO parameters or parameters mutually decided			
4.	Defense product testing at i. Factory acceptance testing (FAT) ii. User trials at Site			
5.	Certification/conformance to standards of the Defense product as required by MOD/Govt. of India			
6.	Transportation of Defense product for Trial to User site			
7.	Arrangement of test ranges/Actual testing sites for doing Internal trials in India if applicable			
8.	Complete Logistics (including Insurance and import clearance, if applicable) for equipment in India			
9.	Internal Trial (in India) and User trial arrangements at Trial location			
10.	Vehicle for towing & mobility test if required			



2.2 Questionnaire on Terms of Cooperation

S No.	Terms of Cooperation	Response
Q 1.	Willingness to participate under the “Buy & Make (Indian)” categorization of Govt of India	
Q 2.	a) Willingness to support BHEL in the integration of their respective product to enable BHEL to supply the “Defence Products” b) Willingness to support System integration and provide a complete system as per RFP parameters.	
Q 3.	Willingness to manufacture/arrange desired unit(s) of Defense products for Field Evaluation Trials on No Cost No Commitment basis	
Q 4.	Willingness to support BHEL during interactions with the MoD for initial screening, participation in the RFP, and subsequent qualification process by way of deputing their experts to India and providing the required information and clarifications as Required/sought by MoD.	
Q 5.	<p>In case of getting shortlisted as a result of this Eol process, willingness to provide the following support to enable BHEL to prepare and submit a competitive techno-commercial bid to MoD as per the terms of the RFP (& other requirements as applicable) and also to successfully execute the contract in case of BHEL emerging as L1bidder:</p> <ol style="list-style-type: none"> 1. To provide costing elements required for preparation of BHEL offer against RFP. Costing elements to cover the details of major materials used in Defense Products manufacturing process, facilities including major machines, assembly & special test equipment, special processes and other suitable details on shop layouts etc., any other pertinent detail. The information to include known supplier sources for such facilities/equipment. 2. To provide a price list with long-term validity with Price Variation Clause for assemblies/subassemblies/components/spares/Manufacturer's Recommended List of Spares (MRLS) etc. for items to be sourced from prospective collaborator. 3. Any other requirement felt necessary as per RFP issued by Indian Army/MoD. 	

(SIGNATURE)



Annexure-3

Details/Information required from prospective collaborator

Experience & Qualification

S No.	Item	Requirement	Confirmation
a)	Experience	<p>The prospective collaborator should have designed, engineered, manufactured, successfully tested, and integrated the new generation “Defence Products”, and the same is qualified for the MOD, Govt of India as of the closing date of this Eol.</p> <p style="text-align: center;">and/or</p> <p>The prospective collaborator should have designed, engineered, manufactured, successfully tested, and integrated the new generation “Defence Products”, and the same is qualified by the international agency and/or acquired manufacturing license from the Govt agency as of the closing date of this Eol.</p>	<p>Yes/No</p> <p>Yes/No</p>
b)	Financials	Annual audited financial reports for the last 3 (three) years	Yes/No

Relevant documentary evidence to substantiate the fulfillment of the above requirements to be furnished along with response.

(SIGNATURE)

Annexure -4Questionnaire on various technical specifications & parameters of Defence Products

S No.	Specification / Parameters	Response
Q 1.	Capable of Meeting technical specifications as required by MOD/Govt. of India.	
Q 2.	Does the Defence Products have any associated equipment? If so, give brief description of the associated equipment with purpose.	
Q 3.	What are the environmental conditions (temperature, relative humidity etc) in which the gun can operate effectively?	
Q 4.	Are there any special features that will ensure effective operation in mountainous terrains?	
Q 5.	Will you be able to provide Reliability parameters with confidence level for each Major Assembly?	
Q 6.	For sustenance of the equipment throughout its Lifecycle, various interventions are required. Like Base Overhaul and planning for the same in terms of Pilot	
Q 7.	Overhaul. Would you be able to assist in establishing the facility and training for the same?	
Q 8.	Capable of being transported as per the requirement of MOD	
Miscellaneous Issues		
Q 9.	What is the service life of the "Defence Products"?	
Q 10.	Which all simulators are proposed with your solution for training on operation and maintenance?	
Q 11.	Is the spare backup for the systems/sub-systems assured for the entire life cycle of the equipment?	
Q 12.	What are the training facilities/equipment on operation and maintenance associated with the "Defence Products"?	
Q 13.	What is the approximate cost of the "Defense Products"?	
Q 14.	Will you be able to additionally provide Maintenance Transfer of Technology (MToT) and assist in establishing the required facilities, if so required?	
Q 15.	(a) Are you making the complete equipment or is it being integrated by you? Give details (b) What are the components, sub-systems or sub-assemblies of the equipments which are not manufactured by you? Please give details.	
Q 16.	Please state your annual production capability?	
Note: More details to elaborate any other aspects regarding the "Defence Products"? or procurement issues can also be provided		

(SIGNATURE)

Annexure-5Checklist

S No.	Requirement (If required, NDA can be signed to facilitate the prospective collaborator to share the details of past supplies made)	Response YES/NO (reference of supporting document)
1)	Whether the prospective collaborator is an Original Equipment Manufacturer of “Defence Products”?	
2)	Whether the prospective collaborator has a prior experience of designing, testing & supplying “Defence Products”?	
3)	Whether prospective collaborator’s detailed experience & reference list is enclosed along with relevant documents.	
4)	Whether details of company background, product catalogs have been enclosed.	
5)	Whether prospective collaborator’s annual audited financial reports including auditor’s report for last 3 years have been enclosed	
7)	Whether the prospective collaborator is willing to transfer the Technology for the “Defence Products”? as per Annexure-1	
8)	Whether the prospective collaborator of “Defence Products” is willing to provide support/ guidance in the selection of partners/ vendors for raw materials or any other subsystems	
9)	Whether the prospective collaborator is willing to provide the product support in terms of maintenance, materials, and spares for a minimum period as specified in the terms of RFP as issued by MOD	
10)	Whether Questionnaire as per Annexure 2 is enclosed.	
11)	Whether Experience & Delivery Information of “Defence Products” as per Annexure 3 enclosed.	
12)	Whether Questionnaire as per Annexure 4 enclosed.	
13)	Whether this Annexure 5 has been duly signed and enclosed.	

(SIGNATURE)



Disclaimer:

The information contained in this Expression of Interest document (the "Eol") or subsequently provided to Applicant(s), whether verbally or in documentary or any other form, by or on behalf of BHEL or any of its employees or advisors, is provided to Applicant(s) on the terms and conditions set out in this Eol and such other terms and conditions subject to which such information is provided.

This Eol is not an agreement and is neither an offer nor invitation by BHEL to the prospective Applicants or any other person. The purpose of this Eol is to provide interested prospective collaborators with information that may be useful to them in the formulation of their application for qualification pursuant to this Eol.

BHEL also accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any Applicant upon the statements contained in this Eol.

The issue of this Eol does not imply that BHEL is bound to select and shortlist Applicants for next stage or to enter into any technology tie-up agreements with shortlisted Applicants for the project.