

BHARAT HEAVY ELECTRICALS LIMITED
(A Government of India undertaking)
Heavy Power Equipment Plant (HPEP),
Hyderabad – 502032, INDIA

Notice Inviting EXPRESSION OF INTEREST (EOI) for Empanelment of vendors for Development of Tooling and supply of Investment cast Buckets & Nozzles for Fr6B.03 & Fr9E.03 Gas Turbines

NIT Notification Number: GT/Invest cast/2025/01

LETTER OF INVITATION

Heavy Power Equipment Plant (HPEP), Bharat Heavy Electricals Limited (BHEL), Ramachandrapuram (India), invites EOI proposals from prospective Global Investment casting manufacturers to be empaneled with BHEL, for Development of Tooling and supply of Investment cast Buckets & Nozzles for Fr6B.03 & Fr9E.03 Gas Turbines.

The EOI includes the following documents:

Section 1 - Disclaimer

Section 2 - Schedule of EOI process and contact details

Section 3 –Details of EOI

Section 4 – Pre-Qualification Criteria

Section 5 – Details of documents to be submitted along with EOI proposal

Annexure-1 - Material, Weight and Dimensions of Bucket and Nozzle castings

- i. Interested agencies shall submit their proposal along with covering letter and all supporting documents/ information as per Section-5 in soft copies addressed to Email IDs indicated in the contact details (Section-2: B) on or before due date of Submission.

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2	SECTION – 2	SCHEDULE OF EOI PROCESS & CONTACT DETAILS.
3	SECTION – 3	DETAILS OF EOI.
4	SECTION – 4	PRE-QUALIFICATION CRITERIA.
5	SECTION – 5	DETAILS OF DOCUMENTS TO BE SUBMITTED ALONG WITH EOI
6	ANNEXURE-1	MATERIAL, WEIGHT AND DIMENSIONS OF BUCKET AND NOZZLES
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SECTION-1

DISCLAIMER

1. The information contained in this Expression of Interest (EOI) document provided to the Applicant(s), by or on behalf of Bharat Heavy Electricals Limited (BHEL) or any of its employees or advisors, on the terms and conditions set out in this EOI document and all other terms and conditions subject to which such information is provided.
2. The purpose of this EOI document is to provide the Applicant(s) with information to assist the formulation of their Proposals. This EOI document does not purport to contain all the information each Applicant may require. This EOI document may not be appropriate for all persons, and it is not possible for BHEL, its employees or advisors to consider the business/investment objectives, financial situation and particular needs of each Applicant who reads or uses this EOI document. Each Applicant should conduct his own investigations and analysis and should check the accuracy, reliability and completeness of the information in this EOI document and wherever necessary obtain independent advice from appropriate sources.
3. BHEL, its employees or advisors make no representation or warranty and shall incur no liability under any law, statute, rules or regulations as to the accuracy, reliability or completeness of the EOI document.
4. BHEL, in its absolute discretion, but without being under any obligation to do so, may modify, amend or supplement the information in this EOI document.
5. An applicant means a Business Entity or Proprietor firm who has sufficient experience in accordance with the Conditions of Eligibility as detailed in this EOI.
6. The issue of this EOI does not imply that BHEL is bound to select and shortlist Applicants to enter into tie-up agreements.
7. The respondent shall bear all costs associated with the preparation, technical discussion/presentation and submission of proposal against this EOI. BHEL, in no case, shall be responsible or liable for these costs regardless of the conduct or outcome of the EOI process.
8. Canvassing in any form by the respondent or by any other agency on their behalf may lead to disqualification of their EOI.

SECTION-2**SCHEDULE OF EOI PROCESS & CONTACT DETAILS****A. SCHEDULE OF EOI PROCESS**

The schedule of events during the Bidding Process shall be as follows -

Sl. No.	Event Description	Date
1	Issue of EOI document	17.07.2025
2	Due date for raising Pre-bid queries on EOI specification	16.08.2025
3	Due date for Submission of EOI proposal	30.08.2025

B. CONTACT DETAILS:

All the correspondences and Proposal for Expression of Interest shall be addressed to the following officials:

To:

Additional General Manager (GT Engg & Tech)
Heavy Power Equipment Plant,
Bharat Heavy Electricals Limited (BHEL),
Ramachandrapuram 502032
Tel: +91-40- 2318- 5494
Mobile: +91 9490191577
E-Mail: technicalbid_hyd@bhel.in

SECTION – 3

DETAILS OF EXPRESSION OF INTREST (EOI)

3.1 ABOUT BHEL

Bharat Heavy Electricals Limited (BHEL) (www.bhel.com) having its registered office at “BHEL House, Siri Fort, New Delhi – 110049 (India)”, is a Government of India Undertaking, Established in 1964. BHEL is an integrated power plant equipment manufacturer and one of the largest Engineering and Manufacturing Company of its kind in India. The company is engaged in the Design, Engineering, Manufacturing, Construction, Testing, Commissioning and servicing of a wide range of products and services for core sectors of the economy, viz. Power, Transmission, Industry, Transportation (Railways), Renewable Energy, Oil & Gas, Water and Defence with over 180 products offerings to meet the needs of these sectors. BHEL has been the bedrock of India's Heavy Electrical Equipment industry.

BHEL has a widespread network of 17 Manufacturing Divisions, 2 Repair Units, 4 Regional Offices, 8 Service Centres, 6 Overseas Offices, 6 Joint Ventures, 15 Regional Marketing Centres and current project execution at more than 150 project sites across India and abroad corroborates the humungous scale and size of its operations.

Adding to its achievements, BHEL has joined the elite club of select global giants having an installed base of over 170 GW of power generating equipment globally. BHEL also has a widespread overseas footprint in 78 countries with cumulative overseas installed capacity of BHEL manufactured power plants nearing 10,000 MW.

BHEL has technology tie-ups with leading companies in the world including General Electric Vernova, Siemens AG and Mitsubishi Heavy Industries Ltd., supported by technology developments in its own R&D centres. The quality & reliability of BHEL products at par with other Global players and adheres to international standards.

3.2 Heavy Power Equipment plant, HPEP, Hyderabad

HPEP, BHEL Hyderabad manufactures GEV design Heavy Duty Gas Turbines, ranging from 25 MW to 300 MW, under a licensing arrangement with General Electric Vernova (GEV).

3.3 Objective of EOI:

BHEL is presently seeking expression of interest from Global vendors for Development of Tooling and supply of Investment cast Buckets & Nozzles for Fr6B.03 & Fr9E.03 Gas Turbines.

The objective of this EOI is to shortlist Global vendors and empanel them as vendors in BHEL material directory for future supply requirements of Investment cast Buckets and Nozzles. The scope of work has been broadly defined in Section-4.

3.4 Process of empanelling:

- i. Prospective "Investment casting suppliers", who are meeting the Pre-Qualification Criteria (PQC) as per Section- 4 shall submit their proposal for **EOI in English** for Development of Tooling and supply of Investment cast Buckets & Nozzles for Fr6B.03 & Fr9E.03 Gas Turbines.

Note: Vendors can apply EOI for all the Buckets & Nozzles castings for 6B.03 GT & 9E.03 GT or any of the casting's items listed in Annexure#1 (as per their manufacturing capacity).

- ii. Vendors shall furnish all the dully filled in formats/ information/ documents/ credentials etc as per PQC checklist (Page#9) and details requested in section #5 (page# 10).

All the documents shall be submitted in English language only. If, the *reference documents are in any other language*, the English translated copy of the same, duly certified, stamped and signed by local chamber of commerce of bidder's country shall be furnished along with the copy of original document.

- iii. BHEL shall intimate the shortlisted vendor(s) for further discussions, presentations etc. on their proposals.
- iv. The selected agencies will be empanelled with BHEL after First Piece Qualification (FPQ) as qualified supplier for Investment cast Buckets & Nozzles.
- v. Subsequent to empanelment, whenever required, BHEL shall float a formal purchase enquiry along with the Tender/ Project specific requirements/scope of work/ purchase terms & conditions etc. The vendors will be finalised as per BHEL's procurement policies and Purchase Order will be placed accordingly.
- vi. This Expression of Interest (EOI) is not an agreement and is not an offer or invitation to enter into an agreement/ tie-up/MOU of any kind with any party by BHEL.

4.0 Pre-qualification criteria

Scope of supply:

BHEL is presently seeking expression of interest from reputed vendors who are manufacturers of Investment cast Buckets and Nozzles for Gas Turbines for Development of Tooling and supply of Investment cast Buckets & Nozzles for Fr6B.03 & Fr9E.03 Gas Turbines.

Upon receipt of expression of interest from probable vendors, BHEL will scrutinize the documents submitted as per pre-qualification criteria, and if found acceptable, will register them as probable vendors for supply of Investment cast Buckets & Nozzles for Fr6B.03 & Fr9E.03 Gas Turbines. Such vendors will then be considered for bidding against our formal enquiry for “Development of Tooling and supply of Investment cast Buckets & Nozzles for Fr6B.03 & Fr9E.03 Gas Turbines.”, as per BHEL’s specifications and drawings, on a frame work agreement basis.

Only those vendors should apply against this notice who have;

- **Prior experience in producing investment castings with complex airfoil geometries for gas turbine applications.**
- **In-house facilities for basic investment casting operations like: wax pattern injection, ceramic shell preparation, vacuum melting and pouring (Vacuum/Air) operations for investment casting of Buckets and Nozzles. Other processes such as tooling development, heat treatment, and Hot Isostatic Pressing (HIP) may be carried out through qualified subcontractors under the vendor’s control.**
- **Must be a regular supplier to either General Electric Company or other gas turbine OEMs like Siemens, MHI, or Ansaldo, for land-based heavy-duty gas turbines rated above 25 MW.**

The vendors who are already registered with BHEL Hyderabad for supply of any one of the Investment cast Nozzle / Buckets for Fr5/Fr6B/Fr9E Gas Turbine need not apply.

Vendor shall submit the duly filled pre-qualification criteria as per **PQC checklist (Page#9) and details requested in section #5 (page# 10)** and submit the supporting documents referred in the same document. BHEL typically requires about 5 to 6 sets of Investment cast Bucket & Nozzle segments annually. This requirement would be expected to be met through sourcing from qualified vendor of the enquiry “Development of Tooling and supply of Investment cast Buckets & Nozzles for Fr6B.03 & Fr9E.03 Gas Turbines”, as per procurement policies of BHEL.

First Piece Qualification Requirements

Vendors who are short-listed / Registered by this EOI process, will be considered for the enquiry “Development of Tooling and supply of Investment cast Buckets & Nozzles for Fr6B.03 & Fr9E.03 Gas Turbines”. The successful vendor of the above enquiry will have to carry out first piece qualification as per BHEL’s qualification requirements. Subsequently, there could be long-term arrangement with such vendor for supply of the established Investment cast Bucket & Nozzle items. No drawings or specifications will be provided to the vendors at this stage of EOI. Technical specifications and related documents will be provided to the qualified registered vendors at the time of sending formal enquiry/RFQ.

Pre-qualification criteria checklist		EOI for Development of Tooling and supply of Investment cast Buckets & Nozzles for Fr6B.03 & Fr9E.03 Gas Turbines		
Sl no	Item description	Documentary evidence	Vendor confirmation (Yes/NO)	Remarks
1	Vendors shall be active manufacturers of Investment cast Buckets and Nozzles for Gas Turbines OEMs (M/s GEV /SIEMENS/MHI/.) at least for last 2 years. Only Manufacturers' /Authorized Distributors of OEMs' Offers shall be considered for the EOI evaluation. OEM shall give Authorization Letter for distributors for all the range of items and Distributors shall enclose Authorization Letter in the offer, without which their Offer cannot be considered. (OEM - Original Equipment Manufacturer)	Submit unpriced PO copies and quality and inspection documents as proof of documents		
2	Vendor shall submit turn over details for last 3 years which shall be used for assessing vendor's current financial status.	D&B report /Auditors Report of Balance sheet, Profit & Loss for last 3 years		
3	Manufacturing, assembly and inspection Facilities	List of facilities with their photographs (self-certified)		
4	Technically qualified vendors will be shortlisted for sending detailed enquiry with NIT terms and conditions along with detailed specifications and drawings for "Development of Tooling and supply of Investment cast Buckets & Nozzles for Fr6B.03 & Fr9E.03 Gas Turbines" after entering into Non-disclosure agreement (NDA) with BHEL.	Confirmation		
5	Documents to be submitted i. Brief profile of the organization ii. Product profile iii. Proven track record – List of customers to whom Investment cast Buckets and Nozzles supplied earlier along with unpriced PO copies. iv. Technical documentation – List of facilities, D&B reports/Auditors reports v. Manpower resources vi. Quality system	Confirmation		
6	If any information given by the bidder is found to be incorrect at later stage, BHEL reserves the right to reject the bid submitted by bidder / cancel the award of order.			
Company Seal:		Authorised Signatory		
		Name & Designation:		

5.0 Documents to be submitted

A. List of documents to be submitted along with proposal:

Prospective vendor should submit following documents along with their EOI Proposal.

Sl. No.	Requirement Description	Vendor Confirmation (Yes/No)	Supporting Document / Remarks
1	Filled in PQC check list as per sheet 9/11		
2	In-house facility for wax pattern injection		List & photos of equipment, plant layout
3	In-house facility for ceramic shell building		Process flowchart / photos
4	In-house melting and pouring facility for Nickel/Cobalt-based superalloys		Details of furnace type
5	In-house or controlled facility for tooling development		Vendor or subcontractor details
6	Facility for heat treatment (in-house or through qualified subcontractor)		Details of HT equipment / subcontractor details
7	Facility for Hot Isostatic Pressing (HIP) (in-house or outsourced)		Details of HIP equipment / subcontractor details
8	Experience in casting of complex geometry airfoil components		Sample unpriced PO copies, photographs, inspection reports
9	Proven experience in casting of superalloys such as GTD-111, IN738, GTD-741, FSX414, GTD241 or equivalent alloys		List of components manufactured with alloy details, component weight, customer details. Details of raw material supplier
10	Measures in place for superalloy material handling and contamination control		SoPs, Material traceability process & records
11	In-house quality inspection facilities (X-ray, UT, PT, material & grain size analysis, mechanical property evaluation)		List of NDT and QA/QC equipment and personnel qualification details
12	ISO 9001 or equivalent Quality System Certification		Valid certificate
13	Willingness to sign BHEL's Non-Disclosure Agreement (NDA)		Confirmation required
14	Acceptance of EOI Proposal		Signed and stamped copy of EOI Specification No: GT/Invest cast/2025/01

Annexure-1

Raw material, Weight and dimensions of Bucket and Nozzles

Item	Dimensions	Raw material	Weight (kg)
9E.03 Nozzle STG#1	430 X 345 X 270	FSX414	46
9E.03 Nozzle STG#2	525 X 465 X 245	GTD241	80
9E.03 Nozzle STG#3	560 X 550 X 310	GTD241	92
9E.03 Bucket STG#1	470 X 180 X 80 mm	GTD-111	13.3
9E.03 Bucket STG#2	580 X 190 X 140	GTD-111	14
9E.03 Bucket STG#3	665 X 200 X 143	GTD-741	14.2

Item	Dimensions	Raw material	Weight (kg)
6B.03 Nozzle STG#1	357 X 208 X 153	FSX414	9.5
6B.03 Nozzle STG#2	361 X 280 X 170	GTD241	19
6B.03 Nozzle STG#3	440 X 353 X 170	GTD241	20
6B.03 Bucket Cast STG#1	267 X 124 X 52	GTD-111M	2.8
6B.03 Bucket Cast STG#2	324 X 124 X 78	IN738	3.1
6B.03 Bucket Cast STG#3	394 X 115 X 82	GTD-741	2.6

Annexure-2

General Information

Date: _____

Legal name of company	
Country of constitution	
Year of constitution	
Legal address in country of constitution	
Mobile Number of the Concerned Person	
Email id of the Concerned Person	
Willing to get registered as a Supplier in BHEL's Supplier Directory	Yes / No

Attached are copies of original documents of:

- Articles of Incorporation or Documents of Constitution, and documents of registration of the legal entity named above.

(Signature of Authorized Signatory)

Name: _____

Designation: _____

Address: _____

Date: _____