

**BHARAT HEAVY ELECTRICALS LIMITED**  
(A Government of India Undertaking)  
INDIA

Notice seeking  
Expression of Interest  
from  
Prospective Consultant  
For

**Design of Gas Insulated Circuit  
Breaker for 420kV and above ratings**

*CONTENTS*

Section	DESCRIPTION
SECTION – 1	DISCLAIMER
SECTION – 2	TIMELINES OF EOI PROCESS & CONTACT DETAILS
SECTION – 3	BHEL
SECTION – 4	EOI
SECTION – 5	CHECK LIST
SECTION – 6	ANNEXURES

**SECTION-1 DISCLAIMER**

- 1.1 The information contained in this Expression of Interest (EOI) document is provided to the Prospective Consultant, 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.
- 1.2 This invitation to EOI document does not purport to contain all the information that each Prospective Consultant may require.  
  
This invitation to 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 Prospective Consultant who reads or uses this invitation to EOI document.  
  
Prospective Consultant should conduct his own investigations and analysis and should check the accuracy, reliability and completeness of the information in this invitation to EOI document and where necessary obtain independent advice from appropriate sources.
- 1.3 BHEL, its employees and 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 invitation to EOI document.
- 1.4 BHEL may at any time, in its absolute discretion, but without being under any obligation to do so, modify, amend or supplement the information in this invitation to EOI document.
- 1.5 The issue of this EOI does not imply that BHEL is bound to select and shortlist any or all the Prospective Consultant.  
  
Even after selection of suitable Prospective Consultant, BHEL is not bound to proceed ahead with the participation in any or all business opportunities and in no case be responsible or liable for any commercial and consequential liabilities in any manner whatsoever.
- 1.6 The Prospective Consultant shall bear all costs associated with the preparation, technical discussion/presentation and submission of EOI.  
  
BHEL shall in no case be responsible or liable for the costs regardless of the conduct or outcome of the EOI process.
- 1.7 Canvassing in any form by the Prospective Consultant or by any other agency on their behalf shall lead to disqualification of their proposals against this invitation to EOI.

**SECTION-2**

**TIMELINES OF EOI PROCESS & CONTACT DETAILS**

**2.1 TIMELINE OF EOI PROCESS**

The schedule of activities of the EOI Process shall be as follows -

Sl. No.	Description	Date
1	Publishing of Notice for EOI document	25.04.2025
2	Last date of Submission of EOI response (BHEL will reserve the right of extension of the date)	24.05.2025

**2.2 CONTACT DETAILS:**

All the correspondence shall be marked to the following:

Mrs Neelam Tiwari Sr. Manager Transmission Systems Group, Corporate R&D Bharat Heavy Electricals Limited (BHEL), Hyderabad, India, PIN 500042  Tel:(+91)- 9948687970 E-Mail: <a href="mailto:neelamtiwari@bhel.in">neelamtiwari@bhel.in</a>	Mr. Sri Krishna Prasad Sr. Deputy General Manager Switchgear Engg. Div Heavy Electrical Plant Bharat Heavy Electricals Limited (BHEL), Bhopal, India, PIN 502032  Tel:(+91)- 0755-2502667, 9425604933 E-Mail: <a href="mailto:shrikrishna@bhel.in">shrikrishna@bhel.in</a>
---	--

**2.3 GUIDELINES FOR EOI SUBMISSION**

The Prospective Consultant shall forward their documents as part of EOI, to the e-mail of the contact persons indicated above.

The size of the e-mail (with attachments) may be restricted to 15 MB due to constraint at receipt. The attachments may be split and sent in no. of e-mails clearly mentioning in subject of mail 'Mail 1 of N', Mail 2 of N ....etc.

## SECTION – 3

### BHEL

#### 3.1 BHEL

*Bharat Heavy Electricals Limited (BHEL)* is a Central Public Sector Enterprise under ministry of Heavy Industry and Public Enterprises, Government of India.

It is an integrated power plant equipment manufacturer and one of the largest engineering and manufacturing companies of its kind in India having a turnover of around US \$ 2.6 billion and is a company listed in stock exchanges of India.

The company is engaged in the design, engineering, manufacture, construction, testing, commissioning and servicing of a wide range of products and services for the core sectors of the economy, viz. Power, Transmission, Industry, Transportation, Renewable Energy, Water Management, Oil & Gas and Defence with over 180 product offerings to meet the needs of these sectors.

BHEL has been in the business for more than 50 years and BHEL supplied power equipment account for about 58% of the total thermal generating capacity in India.

The company has highly skilled and committed manpower of approximately 30,000 employees spread across 16 manufacturing units, 4 project execution units, 8 service centres and 15 regional offices besides host of project sites spread all over India and abroad.

BHEL has its footprint in all the inhabited continents with references in 82 countries with cumulative overseas installed capacity of BHEL manufactured power plants nearing 10,000 MW.

BHEL invests more than 2.5% of turnover on R&D and innovation.

More details about the entire range of BHEL's products and operations can be seen at [www.bhel.com](http://www.bhel.com).

#### 3.2 HEP (Unit of BHEL)

*Heavy Electricals Plant* is a Unit of BHEL working on EPC basis and is located in Bhopal, Madhya Pradesh State in Central India. It has capabilities to execute the projects on EPC basis and has rich experience of engineering the Transmission and has experience of executing wide variety of projects like steam turbines, Railway Line Electrification and transformers & reactors.

SECTION – 4

EOI

4.1 OBJECTIVE OF THIS NOTICE:

The objective of this Notice is to seek EOI from prospective Consultants who have hands-on experience in the following areas for 420kV and above rated SF<sub>6</sub> Gas Insulated Circuit Breakers:

4.2 EXPECTATIONS FROM RESPONDENTS TO THIS NOTICE (AS PART OF EOI):

Consultants are expected to furnish

- Work Experience certificate in Switchgear industry which includes the job titles and duration.
- Confirmation of separation from organization.

4.3 ELIGIBILITY CONDITIONS FOR PROSPECTIVE VENDOR

**1. Overall Industry Experience**

- Minimum 7 years of experience with leading switchgear manufacturers, specifically in 420kV and above rated SF<sub>6</sub> Gas Insulated Circuit Breakers.
- Should have been actively involved in R&D projects, new product development, and short-circuit duty tests.
- Should have Experience of Gas Circuit breakers for GIS application.
- Should not be employed in any switchgear industry as on the date of this EOI.

**2. Domain Specific**

- Design and development of EHV and UHV Gas circuit breakers.
- Mechanical, electrical, and dielectric performance optimization.
- Knowledge of switching phenomena, dielectric withstand characteristics, and interruption performance.

**3. Software & Simulation Proficiency**

- Expertise in using simulation and analysis tools for SF<sub>6</sub> Gas Insulated Circuit Breaker performance evaluation, including:
  - ANSYS Maxwell, COMSOL (Electromagnetic analysis).
  - Matlab/Simulink, PSCAD (Transient and switching analysis).
- Experience in arc modelling, pressure wave analysis, and fluid dynamics simulations for SF<sub>6</sub> Gas Insulated Circuit Breakers.

#### **4. Manufacturing & Materials Knowledge**

- Understanding of materials used in circuit breakers and their impact on performance.
- Knowledge of assembly processes, production techniques, and quality control in circuit breaker.

#### **4.4 RESULT OF EOI:**

Based on the data furnished, BHEL will register the consultant in their Consultants Directory

#### **4.5 INSTRUCTIONS**

- a) A prospective Consultant requiring any clarification to the EOI documents may notify the same through e-mail or by post at the address indicated in Section 2 of this EOI.

BHEL will respond to any request for clarification or modification of the EOI

Prospective Consultants are advised to regularly visit BHEL's website for clarifications, modifications if any.

- b) BHEL at their sole discretion may Communicate the Consultant for evaluation, if required.

#### **4.6 MISCELLANEOUS:**

Right to accept or reject any or all Applications:

- i) Notwithstanding anything contained in this invitation to EOI, BHEL reserves the right to accept or reject any EOI and to annul the EOI Process and reject all EOIs at any time without any liability or any obligation for such acceptance, rejection or annulment and without assigning any reasons, thereof.
- ii) BHEL reserves the right to disqualify prospective Consultant during or after completion of EOI process, if it is found there was a material misrepresentation by any such prospective consultant or the prospective consultant fails to provide within the specified time, supplemental information sought by BHEL.
- iii) BHEL reserves the right to verify all statements, information and documents submitted by the Prospective Consultant in the EOI. Any such verification or lack of such verification by BHEL shall not relieve the Prospective Consultant of his obligations or liabilities hereunder nor will it affect any rights of BHEL.

#### **4.7 Governing Laws & Jurisdiction:**

The EOI 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 this EOI process

**SECTION-5**

**CHECK LIST FOR DOCUMENTS TO BE FORWARDED ALONG WITH EOI**

Prospective Vendor should submit following documents along with their Proposal:

Sl. No.	Document Description	Format	Bidder's confirmation (Yes / No / Not Applicable)
1.	General information	Annexure - 1	
2.	Experience certificate	-	



SECTION-6 Annexure – 1

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:	
<i>Willing to get registered as a Supplier in BHEL's Supplier Directory</i>	<i>Yes / No</i>
Attached are copies of original documents of	
<input type="radio"/> 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: