



Expression of Interest (EOI) for supply of vacuum interrupters for MV switchgear applications

Ref: SWE/RPD/AIS/EOI/01 date: 30.12.19

Subject: EOI (Expression of Interest) is invited from interested reputed, technically & financially sound bidders with experience in manufacturing and supply of vacuum interrupters for MV switchgear applications

1. **Introduction:**

This Expression of Interest (EOI) seeks response from prospective manufacturer who are meeting the requirements of this EOI and are willing to be associated with BHEL as supplier of Vacuum Interrupters (VI) for MV switchgear applications. VI's are employed in vacuum circuit breakers to carry and interrupt normal as well as rated fault current. These interrupters shall have high degree of vacuum (better than 10^{-6} torr) and shelf life of the interrupter shall be greater than 20 years.

1.1. **About Bharat Heavy Electricals Limited:**

BHEL is a leading state owned company, wherein Government of India is holding 63.06% of its equity. BHEL is an integrated power plant equipment manufacturer and one of the largest engineering and manufacturing organization in India, catering to the core infrastructure sectors of Indian economy viz. energy, transportation and heavy engineering industry, defense, renewable and non-conventional energy. The energy sector covers generation, transmission and distribution equipment for hydro, thermal, nuclear and solar photo voltaic. BHEL has been in this business for more than 55 years and BHEL supplied equipment account for more than 57% of the total thermal generating capacity in India. BHEL is also listed in Indian stock exchanges. The company has 16 manufacturing units, 4 power sector regions, 8 service centers, 4 overseas offices and 15 Business offices besides host of project sites spread all over India and abroad. The annual turnover of BHEL for the year 2018-19 was US\$ 4.12 Billion. BHEL's highly skilled and committed manpower of more than 36000 employees, the state-of-the-art manufacturing facilities and latest technologies, has helped BHEL to deliver a consistent track record of performance. To position leading state owned companies as "Global Industrial giant" and as a recognition for their exemplary performance, 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\$ 18.20 Billion, BHEL is poised for excellent future growth. More details about the entire range of BHEL's products and operations are available at www.bhel.com.

BHEL has a wide and rich experience in the design and manufacture of MV (Indoor/outdoor) switchgears of up to 36 kV class. Its production units are equipped with latest and state of art manufacturing facilities.

1.2. **Annual requirement of Vacuum Interrupters**

Annual requirement of various Vacuum interrupter used in Switchgears are as below-

Sl no.	Rated Voltage	Rated Current	Fault Current	Expected quantity Annum (in numbers)
1	12kV	Upto 4000A	50kA	3000
2	12kV	Upto 3150A	40kA	6000



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3	12kV	Upto 2000A	26.3kA	3000
4	12kV	Upto 1250A	26.3kA	4500
5	36kV	Upto 2500A	26.3kA	1500
6	36kV	Upto 2000A	26.3kA	3000

The above annual requirement is tentative and may increase/decrease based on the orders received by BHEL.

2. Scope of Supply:

BHEL seeks manufacturer for supply of following Vacuum Interrupters for Medium Voltage Switchgears

Sl no.	Rated Voltage	Rated Current	Fault Current	PFkv)/ Impulse (kvp)	Preferred stroke (mm)
1	12kV	Upto 4000A	50kA	35kV/75kVp	10-12
2	12kV	Upto 3150A	40kA	35kV/75kVp	10-12
3	12kV	Upto 2000A	26.3kA	28kV/75kVp	6-8
4	12kV	Upto 1250A	26.3kA	28kV/75kVp	6-8
5	36kV	Upto 2500A	26.3kA	70kV/170kVp	20-22
6	36kV	Upto 2000A	26.3kA	70kV/170kVp	20-22

3. Prequalification requirements (PQR):

- Prospective supplier should have experience of at least 15 years in manufacturing and supply of vacuum interrupters for MV switchgear applications. **(Vendor is required to substantiate this by providing end user statement mentioning the details of the Vacuum Interrupter, which are in service for more than 15 years of service)**
- Prospective supplier should have Turnover of not less than INR 25 Crores for each of the year - 2016-17, 2017 - 18, 2018- 19. **(Vendor is required to substantiate this PQR by providing Audited financial reports as documentary evidence)**
- Vendor should have supplied a minimum of 15000 Vacuum Interrupter in last 3 years to companies in Medium Voltage Switchgears sector. **(Reference List along with unprised PO copies to be submitted to support this claim.)**
- Vendor must confirm to have capacity to supply minimum 3000 numbers Vacuum Interrupters within 3 months after PO Placement by any customer. **(Reference Supply List along with unprised PO copies to be submitted to support this claim.)**
- Vendor must submit the certificate of satisfactory performance of their manufactured Vacuum Interrupter, which were supplied on or after year 2010. At least 10% quantity of annual required quantity of the Vacuum Interrupters mentioned at 1.2 above must have worked for minimum three years satisfactorily. **(Performance certificate from end user of Medium Voltage Switchgears to be submitted to support the claim.)**

4. Brief Description of EOI Process:

The response shall necessarily be accompanied with details on company background, technical features/ product catalogue, reference list, audited annual financial reports for last 3 (three) years including auditor's report etc. and documents mentioned at sl no 3 above.



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BHEL will evaluate the EOI received from the interested manufacturer and after evaluation, qualified vendors may be called for technical discussion at Bhopal.

Once evaluated, technically qualified vendor will be issued limited tender enquiry for further processing of Purchase order.

Technically Qualified Vendors to get registered in BHEL Bhopal. For detail visit our website www.bhel.in.

4.1. Contact Details:

The respondent shall submit their response with all documents duly signed to the following official:

ARUN DEWANGAN
Dy. G.M.
Switchgear Engg. Div.
Block 4 EWFF
BHEL, Piplani Bhopal, 462022 (M.P.) India
Contact Nos. : 0755-2505675/9425604804
E Mail Id: adewangan@bhel.in

4.2. Schedule of EOI:

The schedule of Eoi shall be as follows -

Sl. No.	Description	Date
1.	Issue of Eoi document	15.01.2020
2.	Last date for submission of Eoi response	14.02.2020



5. Miscellaneous:

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

- a) Notwithstanding anything contained in this Eoi, BHEL reserves the right to accept or reject any Application and to annul the Eoi 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 thereof. In the event that BHEL rejects or annuls all the Applications, it may, at its discretion, invite all eligible Prospective Collaborators to submit fresh Applications.
- b) BHEL reserves the right to disqualify any Applicant during or after completion of Eoi 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.
- c) BHEL reserves the right to verify all statements, information and documents submitted by the Applicant in response to the Eoi. Any such verification or lack of such verification by BHEL shall not relieve the Applicant of his obligations or liabilities hereunder nor will it affect any rights of BHEL.

5.2. Governing Laws & Jurisdiction:

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