

**TITLE- “Expression of Interest” to sell off the 14 no. already manufactured transformer lying with BHEL, Jhansi**

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# EXPRESSION OF INTEREST (EOI) FOR

## SUBCONTRACTING OF POWER & DRY TYPE TRANSFORMERS"

EOI NO: BHELJHS/TRE/EOI/2022/P

Dtd 03.10.2022,

Due Date: 17.10.2022 13:15hrs

### 1.0 INTRODUCTION:

This Expression of Interest (EOI) seeks response from Utilities/Purchasers of who are willing to purchase the already manufactured and fresh/unused Power Transformers lying with BHEL, as elaborated in subsequent paras of this EOI.

### 2.0 ABOUT BHEL:

Bharat Heavy Electricals Limited (BHEL) ([www.bhel.com](http://www.bhel.com)) is a Government of India Undertaking and a Maharatna Company, established in 1964. BHEL is an integrated power plant equipment manufacturer and one of the largest Engineering & 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 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 Company, Alstom SA, 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.

#### About Transformer Plant, BHEL Jhansi

BHEL Jhansi was established in 1974. It started Production of Power Transformers in 1981 & Dry Type Transformers in 1984. In 2011, BHEL Jhansi started manufacturing Transformers of 400kV Class. Jhansi unit also manufactures other products & special transformers like Rectifier Transformers, Instrument Transformers, Freight Loco Transformers, Locomotives etc.

### 3.0 BRIEF OF EOI:

BHEL Jhansi had received orders for supply of Power transformers of different ratings for different projects in recent past. Many of these transformers were designed and manufactured as per customer specification/applicable standards, meeting BHEL internal quality norms and established philosophy. While many of these transformers have been successfully tested and supplied. However, some of these projects have off late come under hold while some others have been cancelled. Many of these transformers have already been manufactured or were in advance stage of manufacturing. BHEL has 14 no. such completely manufactured transformers lying at works, and it has been strategically decided to sell off these transformers at a reasonable price primarily to utilise unused inventory. This will be a useful proposition both for purchaser (faster delivery of quality product at a lesser price) & for BHEL (utilisation of hold inventory). The List of Transformer with brief technical details is as per Cl. 5.0 below.

The transformers have been manufactured as per BHEL Quality plan/ customer specific quality plan and vendor list. These transformers have been strictly manufactured as per BHEL internal quality norms and specific requirement of the original customer. Since the Transformers are already manufactured, stage inspection shall not be applicable and only final testing as per IS:2026 shall be conducted. All applicable tests as per international/national standard shall be

carried out at 100% level in presence of purchaser or their representative and after successfully passing only these will be supplied. Standard BHEL terms and conditions with respect to guarantee shall be followed as followed for fresh supplies. The same shall be shared during individual enquiries.

#### **4.0 BRIEF OF PROCESS DURING SUBSEQUENT ENQUIRY STAGE:**

The interested purchaser may send their consent for participating in this process based on the preliminary details shared in this enquiry. However, acceptance of this EOI does not mean that purchaser has to necessarily give order. The parties have to send their consent for their interest in any one or more than 1 product listed. Parties may also ask for minor modifications, feasibility of which may be worked out in next stage, but shall be subject to BHEL consent with specific loading and feasibility of the modification.

Based on positive responses, those parties shall be enlisted by BHEL (after this EOI) as prospective bidders for specific enquiries of the listed or similar transformers. Specific enquiries/offers for specific transformers shall be sent only to interested / enlisted parties for any/all of the rating as mentioned in clause 5 for submitting techno commercial offer (two-part bid) covering the scope as per enquiry. The specific enquiry shall contain all specific details like drawings, GTP, MQP, inspection requirements, final testing, and all other specific conditions of contract. In case where complete details are not available, physical visits by bidder may also be done by interested bidder.

Price evaluation statement shall be worked out on the basis of price quoted by purchaser for the overall package including testing, supervision for erection & commissioning. Standard terms and conditions with respect to warrantee and guarantee shall be applicable. Various terms viz. PVC, delivery, inspection, preparation for testing and scope shall be covered and agreed as per enquiry term and shall be decided during enquiry stage. Transportation cost will be based on actuals and shall not be used for evaluation purpose.

#### **5.0 LIST AND BRIEF DETAILS OF TRANSFORMERS COVERED IN EOI:**

The brief details of the transformers covered under this EOI is as under: -

Sl. No.	Transformer rating	Quantity
1	50MVA,11/220 kV Three Phase GT Impedance- 12.5% Vector- YNd11 Cooling- OFWF- 2 x 100% OFWF Coolers Temp Rise(Oil/Wdg)- 50/55 Deg C NLL-30 Kw LL- 185 kw AL- 5KW BIL (kVp)- LV/HV-75/950 Taps on HV-+/-7.5% @2.5% (Off Ckt) Overall Dimensions- 10000 x 3500 x 6900 mm Termination -LV/HV- Segregated Busduct/Oil-Air Bushing	2Nos
2	100MVA,150/21-21 kV Three Phase Zig Zag Transformer Impedance (HV-LV1 or HV-LV2)- 20% Vector- YNo/Zn1-Zn1 Cooling- ONAN Separately mounted radiator Bank	1 No

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	Temp Rise(Oil/Wdg)- 60/65 Deg C NLL-33 Kw LL- 358 kw BIL (kVp)- LV /HV-125/650 Taps on HV- -17.5% TO +12.5% @1.25% -On Load Overall Dimensions- 10500 x 13000 x 11000 mm Termination -LV/HV- Oil-Air Bushing / Oil-Air Bushing	
3	16MVA,15.75/6.3 kV Three Phase UAT Impedance- 10.0% Vector- Dd0 Cooling- ONAN/ONAF- Tank Mounted Radiators Temp Rise (Oil/Wdg)- 50/55 Deg C NLL-15 Kw LL- 80 kw AL- 1 KW BIL (kVp)- LV/HV-28/75 Taps on HV= -12.5% to 7.5% @1.25% (On Load) Overall Dimensions- 6600 x 6100 x 5400 mm Termination -LV/HV- Segregated Busduct/ Oil-Air Bushing	4 Nos
4	20MVA,132/11kV Three Phase GT Impedance- 10.0% Vector- YNd11 Cooling- ONAN- Tank Mounted Radiators Temp Rise (Oil/Wdg)- 50/55 Deg C NLL-17 Kw LL- 105 kw BIL (kVp)- LV/HV-75/650 Taps on HV= -5% to +5% @2.5% (Off Ckt) Overall Dimensions- 6600 x 7000 x 5500 mm Termination -LV/HV- Cable Box/Oil-Air Bushing	4 Nos
5	32MVA,15.75/6.9-6.9 kV Three Phase (SAT) Impedance (HV-LV1 or HV-LV2)- 12.0% Impedance (LV1 LV2)- 22.0% Vector- Dyn11yn11 Cooling- ONAF- 2x60% Separately mounted radiator Bank Temp Rise (Oil/Wdg)- 50/55 Deg C NLL-26 Kw LL- 136 kw AL- 2 KW BIL (kVp)- LV /HV-60/95 Taps on HV- -10.0% TO +10.0% @1.25% -On Load Overall Dimensions- 9000 x 7000 x 7000 mm Termination -LV/HV- Segregated Busduct/Isolated Bus Duct	2 Nos
6	29MVA,11/220 kV Single Phase GT Impedance- 12.5% Vector- YNd11 Cooling- OFWF- 2 x 100% OFWF Coolers Temp Rise(Oil/Wdg)- 55/60 Deg C NLL-16 Kw LL- 95 kw AL- 6KW	1 Nos

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	BIL (kVp)- LV/HV-75/1050 Taps on HV-+/-7.5% @2.5% (Off Ckt) Overall Dimensions- 4500 x 4500 x 7200 mm Termination -LV/HV- Oil-Air Bushing/Oil-Oil Bushing	
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### 6.0 SCOPE OF WORK BY BHEL DURING EXECUTION STAGE:

1. Submission of complete drawings, Guaranteed technical particulars etc and other details as available. The drawings shall be submitted for formal approval.
2. After drawings and documents approval, transformer shall be prepared for final testing.
3. Witness of final testing by Customer at BHEL works.
4. Transportation of transformer to site with all accessories required. Transformer oil can be supplied as per customer specification required, if required.
5. Site erection and commissioning or supervision as required by Customer.
6. After sales services during warrantee period as per agreed contract.

### 7.0 INFORMATION TO BE SUBMITTED ALONG WITH EOI

7. Interested parties are requested to submit their response as per scope of work sl.no.-4.0 & 7.0 and as specified elsewhere in this EOI along with relevant information in the form of documents listed below by Post/Email.
8. i. Company Details
9. ii. Rating of the Transformer for which party is interested to purchase
10. iii. Any other details, party want to share.
11. iv. Any other details required from BHEL

### 8.0 CONTACT/RESPONSE:

80% payment within 90 days after successful Testing of Power Transformer at BHEL Jhansi & 20% payment after erection & commissioning at site.

For any clarifications/details, kindly contact -

Mr. Ghanshyam Lalwani  
+91-9425604948, gslalwani@bhel.in

**Your response may be sent to the following address:**

In-charge, Tender Room, Bharat Heavy Electricals Ltd.,  
Administration Building, Jhansi -284120

Email: [tenderbox.jhs@bhel.in](mailto:tenderbox.jhs@bhel.in)

Offer must reach tender room of BHEL Jhansi latest by 13.15 hrs of the EOI due date