



# **Jharkhand Bijli Vitran Nigam Limited**

(CIN: U40108JH2013SGC001702)

Regd. Office: Engineering Building, H.E.C., Dhurwa, Ranchi-834004,

Telephone: 0651-2400799 & Fax: 0651-2400799

<https://www.jbvnll.co.in> E-mail: [gm.distnw@jbvnll.co.in](mailto:gm.distnw@jbvnll.co.in)

**NIT NO. : 206/PR/JBVNL/2025-26**

## **JHARKHAND BIJLI VITRAN NIGAM LIMITED (JBVNL)**

**invites**

### **Request for Bid**

**For Empanelment of Agencies for Repairing Power Transformers (PTRs) of various capacity (e.g. 5 MVA, 10 MVA etc.) on rate contract under JBVNL for two years.**

**Tender Authority:**

**General Manager (DN)**

JBVNL Headquarters,

HEC Admin, Ranchi,

Jharkhand-834004

Email: [gm.distnw@jbvnll.co.in](mailto:gm.distnw@jbvnll.co.in)

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### **e-procurement Notice**

### **RFB/NIT No. 206/PR/JBVNL/2025-26**

Jharkhand Bijli Vitran Nigam Limited (JBVNL) invites /Request for bid(RFB) from eligible agencies for the empanelment to undertake the repair and maintenance of Power Transformers (PTRs) of 5 MVA, 10 MVA etc. capacity. The empanelled agencies will be responsible for ensuring high-quality repairs and adherence to safety and technical standards, as outlined by JBVNL.

Sl. No.	Details of Work	
1	<b>For Empanelment of Agencies for Repairing Power Transformers (PTRs) of various capacity (e.g. 5 MVA, 10 MVA) under JBVNL</b>	
2	<b>Calendar of Events:</b>	
i	<b>Date of Publication of NIT on website</b>	13/10/2025
ii	<b>Start Date &amp; Time for Downloading the Tender Documents</b>	13/10/2025 & 18:00 Hrs.
iii	<b>Pre-Bid Meeting Date and Time</b>	21/10/2025 & 15:00 Hrs.
iv	<b>Last date for sending pre-bid queries at Email- <a href="mailto:gm.distnw@jbvn.co.in">gm.distnw@jbvn.co.in</a></b>	21/10/2025
v	<b>Last Date &amp; Time of Submission of Bid Documents (Online)</b>	13/11/2025 & 18:00 Hrs.
vi	<b>Last Date of Physical submission of Tender fee &amp; EMD/Acknowledgement of Tender submission</b>	14/11/2025 & 15:00 Hrs.
Vii	<b>Date and Time for Opening of Technical bid</b>	17/11/2025 & 15:00 Hrs.

The tender documents with detailed conditions can be obtained through web site <http://jharkhandtenders.gov.in> and should upload all relevant documents as mentioned in the tender document only through online e-tender portal/website <http://jharkhandtenders.gov.in>

Sd/-

**General Manager (DN, HQ JBVNL)**

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## Section- I: Bid Invitation

### 1. Introduction

JBVNL (Jharkhand Bijli Vitran Nigam Limited) is a distribution utility for the state of Jharkhand. Its creation took place on 06.01.2014 after unbundling of Jharkhand State Electricity Board. JBVNL came in existence as a distribution licensee to maintain the power supply throughout the state.

Jharkhand State Electricity Board unbundled into four following companies: -

- Jharkhand Urja Vikas Nigam Limited (JUVNL) - Holding Company
- Jharkhand Bijli Vitran Nigam Limited (JBVNL) - Distribution Company
- Jharkhand Urja Sancharan Nigam Limited (JUSNL) - Transmission Company
- Jharkhand Urja Utpadan Nigam Limited (JUUNL) - Generation Company

The Sub-Transmission Network (STN) & Distribution Network (DN) department of JBVNL is responsible for the operation and maintenance of the electrical system covering all 33kV, 11kV & 440/220 Voltage power distribution system.

Jharkhand Bijli Vitran Nigam Limited, represented by General Manager (DN) intends to Empanel agencies for all Circles offices/Area Boards for repair of defect power transformers of different capacities (e.g. 5 MVA, 10 MVA etc.) under JBVNL, for a period of 2 years from the date of empanelment with 2 year extension if required on mutual consent.

### 2. Brief Description of the Bidding Process

1. The General Manager (DN) on behalf of JBVNL, invites eligible bidders to submit a bid in accordance with the provisions of this Tender Document. In this Tender Document, the term "Bidder", which expression shall, unless repugnant to the context, include all parties who have submitted bids in response to this Tender Document within the stipulated time frame for submission.
2. The Bidders shall submit the bids in two parts by following e-tendering process as described in Bid document. First part comprises of the technical bid and the second part comprises of the Financial/ price bid in accordance with this Tender Document.
3. Bidder shall not upload Financial/price bid with technical bid documents. Such bid shall be rejected, and bidder shall be disqualified from the bidding process.
4. In terms of the Tender Document, a Bidder will be required to deposit, along with its Bid, a bid security as Earnest Money Deposit (EMD) and Tender fees as applicable.
5. JBVNL will open the technical bids of all bidders and price bids of only techno commercially qualified responsive bidders would be opened.
6. Participating bidders, bid prices, the shortfalls in requisite documents, and such other details as JBVNL, at its discretion, may consider appropriate will be announced at the time of opening.
7. Bidders who wish to participate in this Bid will have to register on <http://www.jharkhandtenders.gov.in> and must procure Digital Signature Certificate.
8. For information on Registration with e-procurement and online Bid submission, bidder may contact help desk of e-Procurement system at the following web address: [www.jharkhandtenders.gov.in](http://www.jharkhandtenders.gov.in)

### 3. Bidding Information

S. No.	Particulars	Information
1	Tender Reference No.	NIT No. 206/PR/JBVNL/2025-26
2	Estimated value of the contract	Rs. 8.13 Crs. (incl. taxes) for Two years, for the whole Area Board of JBVNL
3	Date of Publication of NIT on website	13.10.2025
4	Start Date & Time for Downloading the Tender Documents	13.10.2025 18:00 Hrs.
5	Last date for sending pre-bid queries at Email- <a href="mailto:gm.distnw@jbvnl.co.in">gm.distnw@jbvnl.co.in</a>	21.10.2025
6	Pre-Bid Meeting Date and Time	21.10.2025 & 15:00 Hrs. at JBVNL HQ.
7	Last Date & Time of Submission of Bid Documents (Online)	13.11.2025 & 18:00 Hrs.
8	Last Date of Physical submission of Tender fee & EMD/Acknowledgement of submission of Tender.	14.11.2025
9	Date and Time for Opening of Technical bid	17.11.2025 at 15:00 Hrs.
10	Last date & Time for submission of Bids	13.11.2025 & 18:00 Hrs.
11	Mode of Submission	Through online e-tendering portal ( <a href="http://www.jharkhandtenders.gov.in">http://www.jharkhandtenders.gov.in</a> )
12	Date & Time of opening of Technical Bid	17.11.2025 & 15:00 Hrs.
13	Address for communication and Venue for Tender opening	Kind Attn.: <b>General Manager (DN)</b> JBVNL Headquarters, HEC Admin, Ranchi, Jharkhand-834004 Email: <a href="mailto:gm.distnw@jbvnl.co.in">gm.distnw@jbvnl.co.in</a> Ph: 94311 35511 Tenders shall be opened online through e-tendering portal
14	Tender processing fee	Rs. 11,800/- (Non-refundable & Non-Transferable)
15	Earnest Money Deposit (EMD)	Rs. 16,26,000/- (2% of the estimated tender cost)
16	Security Deposit.	The successful bidder shall furnish the performance Bank Guarantee within 14 calendar days from the date of issue of the empanelment offer letter in the form of an unconditional and irrevocable Bank Guarantee for an amount of <b>Rs. 25 Lacs</b> denominated solely in INR payable and claimed at Ranchi issued either by a Nationalized or Scheduled Bank.

**Note:**

- The date & time of opening of Price Bid will be informed at later stages.
- The appointment of agency shall be for 2 years but may be extended up to 2 years, on mutually agreed conditions.

## Section- II: Instructions to Bidders

The scope of work under this tender pertains to the **repair and refurbishment of various types of Power Transformers**, including but not limited to **5 MVA, and 10 MVA ratings etc.**, through a competitive **e-tendering process** under Jharkhand Bijli Vitran Nigam Limited (JBVNL).

The services to be executed by the selected agencies shall include complete transportation, dismantling, inspection, core and coil repair/replacement, reassembly, oil processing, painting, testing, delivery and energisation of the repaired power transformers, in accordance with IS/IEC standards and JBVNL specifications.

This tender shall be applicable to work areas falling under the jurisdiction of the following **Area Board Offices of JBVNL**:

1. Ranchi Area Board
2. Jamshedpur Area Board
3. Dhanbad Area Board
4. Hazaribagh Area Board
5. Giridih Area Board
6. Dumka Area Board
7. Medininagar Area Board

The empanelled agencies shall be required to execute the work under respective Area Board offices as per directions and site allocations by JBVNL.

Agencies are required to submit **FORM-F** indicating their preferred Area Board(s) from the list under JBVNL. An agency may choose one or multiple Area Boards. JBVNL reserves the right to **empanel 1 to 5 agencies per Area Board**, based on agency preferences, proximity of their workshop, and operational requirements. The final allocation will be at the discretion of JBVNL.

Agencies must fill **Form-XX (Price Part)** to quote rates for each individual item listed, as required for the execution of the Scope of Work. The **lowest quoted rate (L-1)** for each item & **H-1 quoted value for scrap materials** in Form-XX shall be treated as the **discovered rate** for that specific item. These item-wise L-1 rates (H-1 rates for scrap materials) shall constitute the **final Price Schedule**, which will be used for making payments to the empanelled agencies.

All technically qualified agencies shall be required to submit a formal **Letter of Acceptance** agreeing to the discovered L-1 rates (H-1 discovered rates for scrap materials) for providing services under this tender. This acceptance must be submitted within **7 days** from the date of issuance of the final item-wise rate communication. Failure to submit the acceptance within the stipulated time may lead to **disqualification** from the bidding process, at the sole discretion of JBVNL.

If an agency is unable to perform the desired activities as defined in the scope of work and within the time as defined in the SOP, it may be removed from empanelment and action may be taken against the agency, as per Clause- 23: Penalty/ Damage (Section- II: Instructions to Bidders). Any other agency, taking part in the bidding process and fulfilling the required eligibility & qualification criteria may be asked to get empaneled at the same rate as discovered in this process, for the remainder of the term of dis-empaneled agency.

### 1. Scope of Work

The agency shall be required to undertake the **repair and refurbishment of defective 33/11 kV Power Transformers** of various capacities (such as 5 MVA, 10 MVA, etc.) as per the instructions and technical specifications laid down by JBVNL. The work must be carried out strictly in line with relevant IS standards and JBVNL-approved quality protocols. The responsibilities of the agency shall include, but not be limited to, the following:

#### 1. Transportation and Initial Handling

Before transportation- Points to be Considered During Preliminary Inspection for Repairing of PTRs



**At preliminary inspection, detailed information of PTR should be taken, including:**

- (i) Physical Position of PTR – overall condition, placement, and stability of transformer.
- (ii) **Condition of all 7 Bush Positions** – inspection of HV/LV bushings for cracks, leakage, or damage.
- (iii) **Relay Positions** – checking of relays ( Buchholtz and others) protection devices, and control panel functioning.
- (iv) **Volume of Transformer Oil** – measurement of oil level and checking for leakages.
- (v) Identification of Damaged Parts (if any) – recording of all visible damage or defective components.
- (vi) Electrical Testing– such as Megger Test to assess insulation resistance and ensure safety. In addition to it if other test may required to carry out inspection shall be performed by the agency.

<b>Checklist-1</b>			
<b>Preliminary Observation of Power Transformer (PTR) at JBVNL Store/PSS - First Inspection before Handing Over to Agency.</b>			
<b>Sl. No.</b>	<b>Parameter</b>	<b>Observation</b>	<b>Remarks</b>
<b>1</b>	<b>Details of Defective Transformer</b>		
<b>i</b>	Capacity of PTR (as per name plate)		
<b>ii</b>	Make of PTR		
<b>iii</b>	Year of Manufacture		
<b>iv</b>	Serial No.		
<b>v</b>	If Any		
<b>2</b>	<b>Physical condition of PTR</b>		
<b>i</b>	Tank		
<b>ii</b>	Radiators		
<b>iii</b>	conservator		
<b>iv</b>	paint		
<b>v</b>	dents		
<b>vi</b>	leakage		
<b>3</b>	<b>Condition of HV/LV bushings</b>		
<b>i</b>	cracks		
<b>ii</b>	leakage		
<b>iii</b>	damages		
<b>iv</b>	Relay Status		
<b>4</b>	<b>Oil Related</b>		
<b>i</b>	Oil Level		
<b>ii</b>	leakage check		
<b>iii</b>	volume as per rating plate		
<b>iv</b>	If Any		
<b>5</b>	<b>Condition of External fittings &amp; accessories available</b>		
<b>i</b>	PRV		
<b>ii</b>	Buchholz relay		
<b>iii</b>	breather		
<b>iv</b>	tap changer		
<b>v</b>	gauges		
<b>vi</b>	valves		
<b>vii</b>	OTI		

<b>viii</b>	WTI		
<b>ix</b>	Fan Indicator		
<b>6</b>	Sealing of transformer (2 seals on both sides of top cover)		
<b>7</b>	<b>Preliminary Electrical Test</b>		
<b>i</b>	Insulation Resistance / Megger test		
<b>8</b>	<b>Video recording &amp; photo evidence of condition (Yes/No)</b>		
<b>9</b>	<b>Gate pass preparation with all details (Yes/No)</b>		
<b>10</b>	<b>Any Other Details</b>		

- (a) Lifting order shall be issued by person authorized in JBVNL to successful bidder/agency for repairing of faulty transformers at their works. Total time frame for delivery of transformers from date of issuance of work order shall be **60 days** with relaxation up to additional 15 days.
- (b) The condition of damaged transformer with respect to availability of parts, fittings accessories, oil etc. shall be ascertained by the agency along with JBVNL representative and to be video recorded in a suitable manner.
- (c) JBVNL shall seal faulty transformers with the help of 2 No of seals on both sides of top cover to avoid any pilferage during transportation.
- (d) The agency shall transport the power transformer from the JBVNL substation/store or client site to their nearest approved and authorized workshop.
- (e) The agency shall arrange for suitable transport vehicles, lifting equipment (Crane/ Hydra), and obtain route permits (if required) for safe and damage-free transportation.
- (f) All transit-related risks, damages, and transit insurance liabilities shall rest solely with the agency.
- (g) The agency shall ensure secure loading/unloading at both ends with adequate mechanical and manual support.

## **2. Joint Inspection and Inventory Preparation**

Joint inspection will be carried out by concerned EEE (MRT), EEE (TRW), AEE(MRT)/AEE (TRW) & AEE (Concerned Supply Sub-Division).

Note : At the time of inspection, JBVNL officials shall carefully verify and match the transformer's condition/status with the details recorded during preliminary inspection. Any deviation, mismatch, or concealment of the actual condition of the PTR from the preliminary inspection record shall be treated as a serious lapse. Such deviations will attract **penalty on the executing agency**, as per tender/contract provisions.

- a) The agency shall be required to conduct a joint inspection of each transformer at their workshop in the presence of JBVNL representatives.
- b) Joint inspection of lifted transformers shall be carried out by JBVNL at agency workshop within 7 days from the date of joint inspection call from agency.
- c) JBVNL representative shall check the sealing of offered transformers. In case transformer sealing found missing or broken, same to be informed to contracts/stores immediately and penalty shall be imposed on agency. Contracts to provide suitable clause to penalize the vendor/agency in such cases.
- d) The scope of repair activities to be carried out will be ascertained jointly with JBVNL representative and repairer agency.
- e) JBVNL representative shall check the status of all the transformer offered for Joint verification and match the same with gate pass/Check List-1 prepared by JBVNL Sub-station /store personnel and sent along with the faulty Power Transformers.

- f) JBVNL representative shall check the status of Top cover, Radiators, Conservators, Tank, HV/LV bushings, HV / LV connectors, flexible jumpers, Gaskets, silica gel breather, oil level gauge, oil drain & filter valve, Tapping switch, Arching horn, all other as per actual requirement. and shall prepare a list of damaged/missing items.
- g) Top cover, core and coil of Transformers offered to be dismantled in the presence of JBVNL Representative and JBVNL shall prepare the list of damaged/missing items after dismantling the transformers at Agency Workshop.
- h) As per the list prepared, JBVNL inspector/representative shall recommend the replacement of damaged/missing items.
- i) JBVNL inspector to ensure for weighing of all the scrap and agency to make all necessary arrangements for disposal of the same.
- j) Oil quantity in the transformers offered to be verified as per the rating plate. In case rating plate is not available, oil quantity according to the same make shall be considered and claim shall be given as per same.
- k) Preparation of Joint verification report duly signed by JBVNL inspector & agency representative.
- a) The agency shall prepare a **detailed inventory report** highlighting visible damages, internal faults, and components needing repair or replacement.
- (c) The agency shall submit the inventory report to JBVNL for approval prior to commencement of any repair work.

Check List-2			
Joint Inspection of PTR at Agency Workshop			
Sl. No.	Parameter	Status	Remarks
1	Verification of sealing condition (intact/broken)		
2	Capacity, Make, Serial No. re-verified (Yes/No)		
3	Matching with Check list -1 (Yes/No)		
i	Any Deviation from Check List-1 (Yes/No) , If Yes, Give Item Wise Description- Condition of tank, top cover, radiators, conservator, HV/LV bushings, OTI, WTI, Fan/Alarm/Trip indicators & relays, OLTC/Divertor switch condition, etc.		
4	Dismantling of core & coil in presence of JBVNL representative (Yes/No)		
5	Preparation of list of defective/missing items along with Estimate as per BoQ. (Yes/No)		
6	Weighing & recording of scrap (Yes/No)		
7	Joint Verification Report signed by both parties (Yes/No).		
8	If Any Other Details		

### 3. Responsibility for Custody, Theft, Damage or Loss of Power Transformer

1. The Agency shall be fully responsible for the safe custody of the transformer(s) handed over to it by JBVNL for repair, transportation, storage, or any other related work.
2. In the event of any theft, pilferage, damage (whether partial or complete), or loss of any part/component of the transformer(s) while in the custody, possession, or control of the Agency, the Agency shall bear the entire cost of replacement/repair as determined by JBVNL.
3. The cost to be recovered from the Agency shall be as per the rates decided and assessed by JBVNL, which shall be final and binding on the Agency.

**4. Finalization of Scope, Estimate and Work Order Confirmation**

- (a) The agency shall not initiate any repair activity unless the **repair scope is approved by JBVNL** based on the submitted inventory.
- (b) Any work undertaken without prior approval shall be done at the agency's own risk and cost.
- (c) Based on inventory report from field and estimate work order will issued from the HQ level.

Repair Cost Estimate will be as follows: - Estimation Cost strictly should be in repairing cost limit.

Sl. No.	Item Description (as per BoQ)	Unit	Discovered Unit Rate	Qty	GST	Amount	Amount with GST	Remarks

**5. Disassembly and Assessment**

- (a) The agency shall have to dismantle the transformer carefully and inspect core, coils, bushings, radiators, tap changers, conservators, and other internal components.
- (b) The agency shall assess the condition of each part and segregate the serviceable and unserviceable components.

**6. Repair & Replacement Activities**

- (c) The agency shall be required to rewind HV/LV coils with new copper conductors using proper insulation (DPC/SV paper) as per IS standards wherever applicable.
- (d) The agency shall have to repair or replace damaged parts such as bushings, gaskets, tap changers, radiators, and protection fittings (PRV, Buchholz relay, etc.) using new and approved materials.
- (e) All replaced parts shall meet IS/IEC specifications and shall be subject to JBVNL's inspection.

**7. Core and Coil Drying**

- (a) The agency shall have to dry the core-coil assembly in a controlled oven or vacuum chamber to eliminate moisture before reassembly.

**8. Oil Handling**

- (b) The agency shall be required to test the existing oil for BDV, moisture, and acidity.
- (c) If reusable, the agency shall filter the oil to restore dielectric strength; otherwise, fresh oil conforming to IS 335/relevant I.S. shall be used.
- (d) The agency shall ensure proper oil filling under vacuum after repairs.

**9. Painting and Surface Treatment**

- (a) The agency shall have to clean, sandblast, and repaint the transformer tank and fittings using anti-corrosive, weather-resistant, and heat-resistant paints.
- (b) The paint system used shall comply with JBVNL specifications.

**10. Testing and Quality Assurance**

- (a) The agency shall be required to conduct routine/acceptance tests in accordance with IS 2026/IS 1180 or any amendments in presence of JBVNL representative.
- (b) The authorized representatives of JBVNL shall have the right to inspect the raw materials during the process of repairing at repairer/agency works. The burnt transformer will be opened in

presence of authorized representative of JBVNL on prior intimation of the repairer for estimation and to assess the damage materials. Video recording of every stages of the inspection must be made. The damaged part must be weighed and reduced to writing. Agency shall submit the offer for Pre tanking inspection & Final testing inspection after repairing the transformer. The required inspections & stage inspection at any time during repairing may be carried out either by the authorized officers of JBVNL or by any third party to be decided by JBVNL.

All test results shall be documented and submitted to JBVNL for review and clearance before dispatch.

**Note:** A penalty of ₹10,000 is imposed if a repaired transformer for each rejection/failure of pre-dispatch inspection in presence of JBVNL representative.

### 11. Delivery and Handover

- (a) Upon successful testing and final inspection, the agency shall have to deliver the transformer to the site or store as directed by JBVNL.
- (b) The agency shall be responsible for safe packing, handling, and transportation during the return delivery.

#### Check List -3

<b>Dispatch, Site Delivery &amp; Commissioning.</b>	
<b>Stage</b>	<b>Checkpoints</b>
<b>At Dispatch from Workshop</b>	Oil level & BDV $\geq$ 50 kV, OTI/WTI working, Fan/Alarm/Trip relays checked, bushings fitted, painting complete, SS name plate with capacity/make/job no. fixed, secure loading
<b>During Transportation</b>	crane/hydra, safe loading/unloading, seals intact
<b>At Site (Before Installation)</b>	Match with dispatch report, oil level, bushing condition, relays/gauges intact, no transit damage
<b>Commissioning at PSS</b>	Mount on plinth, connect all accessories, conduct IR, ratio & functional tests, assist JBVNL team during charging, final joint commissioning report signed
<b>Post-Commissioning</b>	Submit test certificates, photographs, commissioning report, along with Joint Measurement Certificate (JMC)/Inspection report.

### 12. Warranty

- (a) The agency shall provide a **warranty of minimum 24 months** from the date of commissioning and energisation.

*Note: In cases of minor defects (e.g., opening of lids or similar issues) where overhauling of the power transformer is **not required**, as certified by JBVNL officials (refer Item No. 14 of Form XX), the warranty period shall be **waived**, unless otherwise specified by JBVNL.*

- (b) During the warranty period, the agency shall attend to any defect or malfunction arising from workmanship or material failure at no extra cost to JBVNL.

### 13. Compliance and Standards

- (a) The agency shall be required to ensure that all repairs, testing, and materials used are in **strict compliance with IS/IEC standards**, latest **CEA guidelines**, and JBVNL's technical requirements. Agency may refer technical specifications in this tender.

**14. Installation and Commissioning:**

- (a) Agency shall Reinstall the PTR at the designated plinth. Connect all accessories as per original layout. Assist JBVNL team during charging and commissioning. Rectify any issues arising during the commissioning process.

**15. Timeline to repair Power Transformer**

The repair and overhauling of the power transformer shall be completed within 60(Sixty) days from the date of issuance of work order with relaxation of maximum 15 days for inspection, transportation etc.

*Note: The repairing work shall **include complete transportation (to and fro)** of the Power Transformer (PTR) from the site to the workshop and back, along with safe handling of transformer oil. The **agency is required to quote the price part accordingly**, ensuring that all such costs (transportation, oil handling/refilling, loading/unloading, etc.) are incorporated in their quoted rates. No additional claim on these accounts shall be entertained by JBVNL at a later stage.*

The repaired PTR shall have following details in tag plate. tag plate shall be of SS material

- a. Rating after repair
- b. Job number No.
- c. Original Serial no. of transformer and make
- d. HV/LV - Voltage and current
- e. Percentage Impedance as per repaired design as per test result
- f. Losses at 50% and 100% as per repaired design as per test results
- g. Tapping details
- h. Month and year of repair-
- i. Warrantee Period up to-
- j. Vector group.

## 2. Eligibility & Qualification Criteria

Bidder should be an experienced agency, fulfilling the defined Eligibility and Qualification Criteria, having adequate facilities and capabilities for repairing and testing of power transformers of different capacities. Bidders must have electrical license to carry out work in the state of Jharkhand.

### 2.1 Eligibility

**I(a).** Bidder Must be a manufacturer of **power transformers/repairer** with prior experience of repairing power transformers for JBVNL (or Erstwhile, JSEB)/ Central/ State PSUs/ Railways/ SAIL/ Licensee Discoms & having transformer repairing workshop in **Jharkhand state**.

**Or,**

**I(b).** Bidder must be **manufacturer** for Distribution transformer having adequate infrastructure/**facility for repairing of power transformers in Jharkhand state**.

**II.** Bidders should have its own workforce, plants & tools, and equipment for carrying out the repairing work and should maintain dust free environment for winding works and should have the following essential equipment:

- (i) 30/40 Tones EOT crane,
  - (ii) At least 4KL oil filtration plant.
  - (iii) Winding machines for winding of PTR windings.
  - (iv) Insulating paper wrapping machine
  - (v) Vacuum drying chamber.
  - (vi) Fully Automatic Digital Megger (5 KV)
  - (vii) Automatic Digital Capacitance & Tan delta measuring instrument
  - (viii) Digital winding resistance instrument
  - (ix) Digital turns ratio Meter
  - (x) analyser
  - (xi) Adequate rating of cables for measuring load losses and impedance as per IS.2026.
  - (xii) Sufficient No. of sensors for measuring top & bottom oil temperatures for testing Transformers, and other essential T&P.
  - (xiii) Digital Flow meter for measuring the quantity of transformer oil during filling.
- If a bidder qualifies in pre-qualification bid, a team from JBVNL will be deputed for inspection of workshop and Tool & Plant (T&P) before opening of price bids.

### 2.2 Qualification Criteria:

- a) All the components of electrical works mentioned above (2.1 (II)) should be in successful operation for at least one (1) year as on date of submission of bid.
- b) Work experiences of the bidder shall be considered only if the works have been executed with Government Distribution Utility/ Distribution Franchisee/ BSEB/ Power Departments/ Central PSU or any other state/ central Government undertaking organization in India.
- c) The Bidder should have sufficient manpower for carrying out the repairing work. Bidder should provide an undertaking on its stamped letterhead certifying their ability to provide sufficient manpower with the required qualification & experience, as specified in Annexure-I (List of Manpower with Required Qualification & Experience) or as may be required during this project tenure.
- d) The Bidder should have required Tool & Plants for these works, minimum requirement for which is as per Annexure-II. Bidder should provide an undertaking on its stamped letterhead in this regard. List of machinery with the agency for testing must be attached with the bid document.

### 2.3 Financial Qualification Criteria:

#### a) Average Annual Turnover:

The average annual turnover (MAAT) of the firm for best 3 years out of last 5 financial years (i.e., 2020-21, 2021-22, 2022-23, 2023-24, 2024-25) must not be less than as per listed below. Certified / Attested copy of annual accounts (Balance sheet, profit & loss accounts) from practicing Chartered Accountant must be submitted along with the offer to establish financial credibility of the bidders. In the absence of the above credentials, offer may be rejected. However, SSI units of Jharkhand are exempted from the Annual turnover clause.

S/ N	Name of Work	Amount of MAAT @30% of Tender Cost (Rs. in lacs)
1.	<b>MAAT for Empanelment of Agencies for Repairing Power Transformers (PTRs) of various capacity (e.g. 5 MVA, 10 MVA) on rate contract under JBVNL.</b>	<b>244 Lacs</b>

### 3. General Instruction to bidders

- a) All bids must be accompanied by EMD and Tender Fees as specified below and uploaded on or before the prescribed date and time of submission, given in this tender document. Bids submitted without EMD or tender fees will be summarily rejected.

#### b) Tender Fees:

The desirous bidders can download tender documents including terms and conditions, BOQ and technical specification from website of [jharkhandtenders.gov.in](http://jharkhandtenders.gov.in). Tender must be accompanied with tender documents fee of **Rs.11,800/-** only including GST (non-refundable):-

Tender Fee will be received through online mode only. Bidders can use internet banking facility for faster processing of tender fee. Alternatively, Bidders can use NEFT/RTGS Challan generated for the tender from [jharkhandtenders.gov.in](http://jharkhandtenders.gov.in) portal and upload payment evidence / details along with bid documents.

#### c) Earnest Money:

Tender must be accompanied with an earnest money as per below list: -

S/N	Name of Work	Amount of EMD @2% of Tender Cost (In Lakhs)
1.	<b>EMD for Empanelment of Agencies for Repairing Power Transformers (PTRs) of various capacity (e.g. 5 MVA, 10 MVA etc.) on rate contract under JBVNL.</b>	<b>16.26 Lacs</b>

Rs 16,26,000/- (i.e. 2% of Estimated Cost). In Words- **Rs. Sixteen Lacs Twenty Six Thousand only.** EMD will be received through online mode only. Bidders can use internet banking facility for faster processing of EMD. Alternatively, Bidders can use NEFT/RTGS challan generated for the tender from [jharkhandtenders.gov.in](http://jharkhandtenders.gov.in) portal and upload payment evidence / details along with bid documents. Refund will only be issued to the originated bank account used for the payment of EMD. So, Bidders are advised NOT to close Bank Account used for online payment/(NEFT/RTGS) of EMD. No Hard copy/ physical copy is required to be submitted for tender opening /Evaluation. However, Department may ask original



documents for verification before award of contract.

**The EMD/Bid Security of Successful/ Unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's signing the contract and furnishing the Security Deposit.**

#### 4. Exemption

- a) The Bidder of following categories are exempted from deposit of earnest money subject to the conditions laid down below: -
  - i. The State Govt./ Govt. of India undertaking
  - ii. Firms registered with NSIC under single point registration scheme for manufacture of the item, if certificate is valid on the date of tender and during the period of delivery.
  - iii. MSEs unit of Jharkhand, registered with Department of Industries, Govt of Jharkhand / Industrial Area Development Authority, Govt of Jharkhand, for tendered item, valid on the due date of tender and during the period of contract. SSI unit of Jharkhand must submit self-attested or notarized valid copy of SSI registration certificate for tendered item, issued from department of Industries/ Industrial Area Development Authority, Govt of Jharkhand or Udyam Registration Certificate from Ministry of Micro, Small and Medium Enterprises, Govt. of India, failing which, they will not be considered SSI unit.
  - iv. The bids in such cases should be accompanied with self-attested or notarized copy of the valid registration certificate, failing which bids shall be rejected.
- b) **MSE units of Jharkhand are exempted from annual turnover clause.**  
MSE units of Jharkhand are exempted from submission of Tender Fee. There will be No exemption from submission of Tender Fee for MSE outside of Jharkhand.
- c) **EMD exemption of MSE units of Jharkhand as per Jharkhand policy.**

#### 5. Submission Requirements

Interested agencies are required to submit the following documents along with their RFB application:

1. License to work at factory
2. Memorandum of Articles of Association/Proprietorship/Partnership
3. GST, PAN Card of the firm
4. Clearance Certificate from State Pollution Control Board/Any related Authority.
5. List of machinery.
6. Testing equipment- required for the repair, overhauling, and quality assurance of power transformers.
7. Calibrated meters- Calibration certificates must be valid and shall be produced during inspection or upon demand by JBVNL.
8. Past Experience/past order (at least one) of similar work (in last 7 years)
9. Performance Certificates of the executed work (in last 7 years)
10. Approved GTPs and Drawings of the Transformers executed as per SI. No. (9).
11. Documents of skilled and semi-skilled workers.
12. All the documents shall be up dated and valid from time to time.
13. Documents from SI. Nos. (1) to (4) are required to establish the clear existence of a firm under recognition by the state government.
14. Documents from SI. Nos. (5) to (7) are required to establish the authenticity of machineries, testing equipment and the maintenance/observation of sensitivity of the reading meters with supporting of valid Certificates from NABL accredited labs.
15. Documents from SI. Nos. (8) to (9) are required to establish the experience of the firm which is very crucial for observation of the quality of works being executed by a firm.

However, documents from SI. Nos. (1) to (9) shall have to be furnished without fail.

## 6. Selection Process

The empanelment of agencies for repair and refurbishment of 33/11 kV Power Transformers shall be carried out through a three-stage qualification process as follows:

### Stages of Qualification for Empanelment:

#### Stage I – Document Verification:

- Scrutiny and validation of submitted documents to assess technical eligibility, experience, legal compliance, and financial capacity.

#### Stage II – Factory Inspection:

- On-site inspection of the **techno commercially responsive** agency's manufacturing/repair workshop by JBVNL officials to verify infrastructure, testing facilities, quality assurance setup, and manpower.

#### Stage III – Approval and Empanelment:

- Based on the satisfactory factory inspection report submitted by the inspecting officer, **and after acceptance of discovered rate** an Empanelment Approval Letter shall be issued by JBVNL.

## 7. Standard Operating Procedure (SOP) During Empanelment

The following SOP shall be adhered to during the empanelment process:

### 1. Submission of Documents:

- All required documents must be submitted along with the RFB application before the last date of submission as indicated in the tender notice.
- Bidders may seek clarifications during the pre-bid meeting as per the schedule provided.

### 2. Clarification and Shortfall:

- Upon examination of the documents, JBVNL may raise queries or seek clarifications and additional documents to address any shortfalls.
- Bidders must respond within the stipulated time to avoid rejection.

### 3. Completion of Stage I:

- Once the documentation is found complete in all respects, the agency will be formally informed of the successful completion of Stage I.

### 4. Factory Inspection (Stage II):

- The agency shall invite JBVNL for factory inspection.
- The inspection shall be conducted on a mutually agreed date between the agency and JBVNL's designated team.

### 5. Opening of Price Bid & Rate Contract:

- Only **techno commercial responsive** agencies will be eligible for opening of their financial bids.
- The lowest (L-1) rates discovered (H-1 discovered rates for scrap materials) against each schedule item shall form the basis of a uniform rate contract applicable across all area boards of JBVNL.

### 6. Empanelment (Stage III):

- Agencies shall be empanelled upon receipt of a satisfactory inspection report from the designated JBVNL Inspecting Officer and acceptance of the L-1 discovered rates (H-1 discovered rates for scrap materials).
- An Empanelment Approval Letter shall be issued accordingly.
- Work orders may be issued to any or all empanelled agencies at the approved uniform rates, as per the requirement of JBVNL.

## 8. General Terms & Conditions

1. No Guarantee of Empanelment:
2. Mere submission of an RFB application does not guarantee empanelment.
3. Right to Accept or Reject: JBVNL reserves the absolute right to accept or reject any RFB application without assigning any reason whatsoever.
4. Adherence to Quality & Safety: All empanelled agencies shall be mandatorily required to adhere to quality assurance protocols, IS/IEC standards, and applicable safety guidelines during repair and testing of power transformers.
5. Agency must ensure the availability of Tools & Plants and Materials as per Annexure-II &

Annexure-III.

6. The agency shall prepare a detailed estimate of the repair cost, including the cost of necessary spare parts, before undertaking the repair of any 33/11 kV power transformer. If the estimated repair cost, inclusive of spares, exceeds the limit specified in the **Repair Cost Limit** clause, the agency shall immediately inform the concerned JBVNL official. In such cases, the transformer may be declared irreparable and returned to the JBVNL store in a safe and secure condition..
7. The repair work done must be verified by the EEE (MRT), EEE (TRW), AEE(MRT)/AEE (TRW) & AEE(Concerned Supply Sub-Division)., who shall also issue a Joint Measurement Certificate that includes the item-wise breakup of Material utilized and labor deployed by the agency.
8. The photographs captured by the agency must be attached with the progress report and JMC for raising bills by the agency.

## 9. Quantity (Tentative)

The quantity of the defective power transformer is as below:

SI NO.	Area Board	Circle Name	5 MVA	10 MVA	Grand Total
1	Ranchi	Ranchi	7	1	8
		Gumla	3	1	4
2	Jamshedpur	Jamshedpur	6	1	7
		Chaibasa	3	1	4
3	Dhanbad	Dhanbad	5	1	6
		Chas	3	1	4
4	Dumka	Dumka	3	1	4
		Sahibganj	3	0	3
5	Giridih	Giridih	0	1	1
		Deoghar	2	0	2
6	Hazaribagh	Hazaribagh	5	1	6
		Koderma	3	0	3
		Ramgarh	2	0	2
7	Medininagar	Daltonganj	3	1	4
		Garhwa	2	0	2
	Additional Average Annual Burnt Rate		0	0	0
Total			50	10	60

\*The above is indicative and may increase or decrease at the time of issue of W.O.

## 10.Price

Rate in figures (IN Rs.) and in words must be quoted in the enclosed proforma of price part, subject to any statutory change in due course of time, if any leviable tax is not quoted separately or proof of exemption of the same is not given, the relevant duty and/or tax at the maximum rate will be added to evaluate effective cost of the bidder.

(Arithmetical errors will be rectified on the following basis: If there is discrepancy between unit price and the total price i.e., obtained by multiplying the unit price and quantity, the unit price shall prevail and total price shall be corrected. If the bidder does not accept the correction of errors, his bid will be rejected & EMD will be forfeited. If there is a discrepancy between words and figures, the amount in words shall prevail).

*Note: The repairing work shall **include complete transportation (to and fro)** of the Power Transformer (PTR) from the site to the workshop and back, along with safe handling of transformer oil. The **agency is required to quote the price part accordingly**, ensuring that all such costs (transportation, oil handling/refilling, loading/unloading, etc.) are incorporated in their quoted rates. No additional claim on these accounts shall be entertained by JBVNL at a later stage.*

## 11. Validity Period

Bidder should specify the validity period of their offer which should not be less than **180 (One Hundred eighty) days** from the date of opening of tender. The offers with lesser validity period will be outrightly rejected. The Bidder revising their offer or withdrawing the same within the validity period after opening of the tenders are liable to be ignored/blacklisted.

## 12. Taxes

Attested copies of GST return or GST clearance certificate up to date should accompany the tender, failing which the tender is liable to be rejected. GST number should also be stated. Self-declaration certificate with a declaration separately that nothing is due to Tax Department & payment of Income Tax is up to date.

## 13. Evaluation of Bid

- a) The bids will be evaluated technically on the compliance to tender terms & conditions.
- b) The agencies shall need to fill **FORM- XX (in Price part)** to quote the rates of separate items, as may be required under the form for successful execution of this scope.
- c) ***If the agency believes that any essential item required for executing the scope of services under this contract has been inadvertently excluded from Form-XX (Price Part), they may seek clarification during the pre-bid meeting or submit their query via email to [cesd.jseb@gmail.com](mailto:cesd.jseb@gmail.com), [gm.distnw@jbvnl.co.in](mailto:gm.distnw@jbvnl.co.in) on or before the scheduled pre-bid date.*** The bids will be evaluated commercially on the item-wise rates quoted by the agencies. The L-1 rates of each item shall be the rate discovered for an item. (H-1 discovered rates for scrap materials).
- d) The prices of all the items shall be produced in a price schedule, which are to agreed upon by the technically qualified bidders.
- e) Bidder must mandatorily quote against each line of items. Failing to do so, JBVNL may reject the bids.
- f) After the evaluation of Bids, the services of technically qualified bidders shall be sought at the L-1 (H-1 discovered rates for scrap materials) rates discovered, as above. Rate Contracts will be executed with the agencies that give their acceptance to the rates.
- g) JBVNL shall issue an order of empanelment for the technically qualified agencies, who accept providing services at the L-1 rates (H-1 discovered rates for scrap materials), as above.
- h) JBVNL reserves the right to reject the lowest or any of the Bidder either in whole or in part, without assigning any reason.

## 14.Contract Form

The successful bidder will have to execute contract agreement in the JBVNL proforma prior to the placement of the order. The contract agreement is to be executed on Rs. 500.00 non-judicial stamp paper.

## 15.Security Deposit and Contract Agreement

The successful Bidders shall have to **deposit security money of Rs. 25 Lacs** at the time of executing the contract agreement to JBVNL, Ranchi.

The amount of security money shall be deposited in shape of Bank Guarantee of any Nationalized Bank/Schedule Bank and it will be treated as security money. The security money thus deposited will be released after expiry of satisfactory completion of work and expiry of warrantee period of last work order. Also, payment will be made only after depositing the security money and execution of contract.

## 16.Rate Contract and Extension Order

- a) The agencies that stand technically qualified shall be empaneled with JBVNL for providing the services under this scope of work. Rate Contract will be given initially **for a period of 2 years from the date of empanelment of agency**. However, on satisfactory performance of the Agency, the period of 2 years **may be extended further up to 2 years on mutually agreed conditions**.
- b) In the event of an order being placed on the Bidder, the Bidder is requested to give his concurrence that he is willing to accept additional order on the same terms and conditions if extension order is placed by JBVNL.
- c) If JBVNL is dissatisfied by an empaneled agency, it may terminate the services of that agency and may empanel other agencies, for the remainder of the contract period, provided all the necessary eligibility and qualification criteria gets fulfilled

## 17.Forfeiture of Earnest Money and Security Money Deposit

It should be clearly understood that in event of the Bidders failing to accept and execute detailed orders (LOI/WO), if it is placed within validity period of the offer, then the full amount of earnest money and security deposit will be forfeited and the JBVNL's decision, in this respect will be final and binding on the Bidder. The forfeiture of earnest money and security money shall not in any way affect, limit or extinguish any remedy or relief to which above authority may at any time be lawfully entitled.

## 18.Repair Contract

- a) The Repair Contract will be initially for a period of 2 years from the date of empanelment of agency which can be extended for a period of further 2 years on satisfactory performance. If the contract is extended, the agency must continue the services at the same rates, as finalized through this tender process
- b) The Agency must supply the required Manpower as per Annexure-I. The agency should have sufficient manpower to support any increased requirement in fault rectification and to ensure that the defects are rectified well within time.

### Repairing Cost Limit

- c) The repairing cost of any Power Transformer (PTR) **shall not exceed following:**

Sl. No.	Repairing Cost Limit	Amount	Remarks
1	5 MVA PTR	12,50,000	Including GST, Decommissioning Transportation, repairing, installation and commissioning of PTR at Site/PSS.
2	10 MVA PTR	18,70,000	

- d) In case the cost exceeds the specified limit, the agency shall return the PTR to the JBVNL store in a safe and secure condition at agency's own Cost.

## 19. Testing

- The agency shall attach a list of available machinery, testing tools, and qualified technical staff along with the bid document.
- Upon completion of repairs, the agency shall be responsible for conducting all relevant routine and special tests to ensure satisfactory operation of the repaired power transformer, in the presence and to the satisfaction of the designated JBVNL official.  
The agency shall make its own arrangements for all required testing tools and plant (T&P).
- A Test Certificate shall be prepared and submitted for each repaired transformer, duly signed by the testing personnel and countersigned by the inspecting officer from JBVNL.
- The agency may also provide manufacturer's test certificates for any new materials or components used during the repair process, as and when required by JBVNL.

## 20. Terms of Payment

All the invoices raise against the work order after repaired, re-installation, unloading at site and commissioning of power transformer at Site/PSS.

All the invoices, along with photographs and any other relevant documents, need to be submitted to and verified by the **EEE (TRW) and EEE(MRT)** which shall be approved by the DGM cum ESE officer of the concerned Circle and sent to GM of the Concerned Area Board for further submission to the GM(DN), JBVNL HQ for processing of bill. The Bills shall then be Checked /verified by the DN wing, HQ, JBVNL and sent to the finance and accounts wing HQ, JBVNL, for payment from "working fund".

All payments against Supply of Material and Services will be made on submission of Performance Bank Guarantee equivalent to 10% of total order value. If Bank Guarantee in the said manner is not furnished; payment will be made after deducting said amount from the first or consecutive bills.

The documents required to be submitted for payment are listed below:

- For repair work rendered:** 90% of Payment for repair work of 33 kV/11 kV power Transformer (Material & Services)-
  - Inspection report on the items repaired with photographs and verified by EEE (MRT), EEE (TRW), AEE(MRT)/AEE (TRW) & AEE(Concerned Supply Sub-Division).
  - Joint Measurement Certificate of the repair work executed, signed by EEE (MRT), EEE (TRW), AEE(MRT)/AEE (TRW) & AEE(Concerned Supply Sub-Division).
  - Test certificates.
  - Detailed report of the tests performed.
  - Detailed repair Report verified by the EEE (TRW) and EEE(MRT), which shall be further countersigned by DGM-cum-ESE of the concerned circle.
  - The DGM-cum-ESE of concerned circle will submit the bill to GM, ESA for onward submission to GM (DN), JBVNL for onwards needful for payment by paying authority.
- Remaining 10% will be paid after completion of warranty period of two years of the transformer against that Work order.

## 21. Tolerance of Electrical Performance

Unless otherwise specified in the technical specifications, all electrical performance parameters shall adhere to the tolerances prescribed in the latest applicable IS (Indian Standards).

## 22. Warrantee Period

- a) The warrantee period of repaired power transformer will be 24 months from the date of commissioning and energization verified by EEE (TRW)/EEE(MRT).
- b) If any defect is observed during the warrantee period of 24 months from the date of commissioning & energization of repaired PTR, the agency shall be responsible for rectifying or replacing the defective equipment at its own cost. In case the agency fails to take corrective action within a reasonable time, JBVNL reserves the right to get the defect rectified or the equipment replaced by another contractor/agency, and the cost incurred shall be recovered from the defaulting agency whose equipment was under the warrantee period.
- c) If there is any defect to the above said item on account of JBVNL or due to any natural calamities or Force Majeure as per Clause No. 26, then the item will not be considered under the warrantee period.

## 23. Penalty / damage

- a) The Agency shall complete the work within the stipulated time as mentioned in the Work Order / Scope of Work / SoP mentioned in tender document/ or as directed by the concerned JBVNL Officer-in-Charge.. In case the work is not completed within the specified time period, even after an additional grace period of 15 days, a delay penalty of **3% of the invoice value shall be levied for every block of 15 days of delay**, subject to a **maximum of 10% of the invoice value**. The Penalty for the delay applicable to activities will not be attributed to the contractor subject to the condition specified in the Clause No. 26 "Force Majeure" and the mutually agreed genuine causes brought on the records thereof by the contractor.
- b) The delay attributable to JBVNL will not attract any penalty.
- c) At the time of execution of any work, if any equipment in whole or any part, is damaged by the Agency's people, the Agency will be liable to repair the same or replace the same at its own cost.
- d) If JBVNL feels that an agency is unable to work to its satisfaction, it may dis-empanel the agency
- e) Penalty for Violation of Safety Norms: In the event of violation of safety protocols prescribed by JBVNL, CEA regulations, or relevant electrical safety standards:
  - A penalty of ₹5,000 per incident shall be levied on the agency.
  - In case of serious injury, fatality, or major damage due to non-compliance of safety norms, the penalty may be enhanced up to 5% of the contract value of the concerned work order, and the agency may be suspended or dis-empaneled, as deemed fit by JBVNL.

## 24. Termination of Contract and forfeiture of security money

In case the agency fails to complete the work within contracted period/specified hours in JBVNL's SoP/as per office-in-charge (in case it is not mentioned in SoP) or in case the repairing is found not in accordance with the prescribed specification the JBVNL shall exercise its discretionary power to cancel the contract at its sole discretion, terminate the contract, forfeit the security money, and recover any damages or losses incurred.

## **25.Scrap Items/Materials and Rate Adjustment**

All scrap parts and components replaced by the agency during the repair or maintenance of power transformers shall become the property of the agency. Accordingly, the agency shall quote the scrap value of such items in the price bid. Higher value of quoted price item wise of scrap materials in the price part will be considered as Discovered H-1 rate for scrap materials. H-1 discovered quoted scrap value shall be deducted from the total payable amount for the respective repair work during billing. JBVNL reserves the right to verify and approve the list and weight of scrap materials before disposal.

## **26.Force Majeure**

- a) The Agency shall not be liable for forfeiture of its Performance Security, liquidated damages, or termination for default if and to the extent that it's delays in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
- b) For purposes of this clause, "Force Majeure" means an event or situation beyond the control of the Agency that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Agency. Such events may include, but not be limited to, acts of the Employer in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.
- c) If a Force Majeure situation arises, the Agency shall promptly notify the Employer in writing of such condition and the cause thereof. Unless otherwise directed by the Employer in writing, the Agency shall continue to perform its obligations under the Contract as far as is reasonably practical and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

## **27.Governing Language**

The Contract shall be written in English or Hindi and shall be interpreted in accordance with the laws of the union of India.

## **28.Jurisdiction of Court**

The civil court Ranchi shall alone have an exclusive jurisdiction to decide any difference/ dispute/ cases for and against JBVNL/ Agency's/ Supplier's arising out of or in respect of the NIT, or contract agreement, or Purchase order/ work order.

## **29.General**

- a) Joint Venture not allowed
- b) It is reiterated that an incomplete offer, not having specific comments on all the points of our specification and not supported by various information desired in our specifications shall be rejected outright and no further correspondence shall be made with the bidder in respect of their offer which causes delay in finalizing the tender.
- c) The agency shall perform the repair/maintenance works of Power Transformer in adherence to Safety Manual of Nigam. The agency shall adhere to all safety standards including use of PPE relevant to repair/Maintenance works of power Transformer.
- d) It will be sole responsibility of the bidder if any accident occurs and is liable to pay the penalty or the compensation as per the norms or as decided by the JBVNL competent authority.
- e) It will also be the responsibility of bidder to provide facilities to its employees i.e., clean water, safety, first-aid kit etc.



- f) The agency shall comply environmental standards relevant to repair works of Power Transformer including proper storage and disposal of solid and liquid wastes.
- g) The JBVNL reserves the right to cancel full or part of the awarded contract without assigning any - reason of those firms which will be found defaulter for delay in completion of work or sub-standard quality of the workmanship.
- h) NIT will form part of BOQ.
- i) In case of any doubt, benefit of doubt will go to JBVNL.
- j) Material shall be procured from reputed vendors & IS norms should be strictly followed.
- k) Repaired PTR may be sent to NABL Accredited Lab for testing the performance of repaired PTR, If the test report found failed then Penalty will be imposed on agency i.e. equal to the cost of repaired PTR including Transportation & Testing.

**General Manager (DN)**

**Enclosures:**

- i) FORM-A (Tender Proforma for Part-I)
- ii) FORM-B (Self Declaration Certificate for GST)
- iii) FORM-C (Schedule of Deviations from Specification)
- iv) FORM-D (Self Declaration Certificate for Blacklisting)
- v) FORM-E (Self Declaration Certificate for No litigation history)
- vi) FORM-F (Form for indicating preference of Area Board wise offices)
- vii) FORM-G ( Check List items before submission of bids)

### **30. Technical Specification**

This specification covers transportation, arranging for Joint Inspection, Repairing, Overhauling, Testing and Delivery at Destination of 33/11 kV power Transformers. Rate contract will be entered into with eligible Transformers repairers. The rate contract will be for a period of two years initially extended up to 2 years on mutually agreed terms from the date of empanelment of agency after obtaining acceptance of the rates from the bidders.

- a) Butt welding at winding section and gas welding at assembling section will be done.
- b) During oil filtration of transformer for all the PTRs, temperature will be maintained at 60 degree C for 5 MVA to 10 MVA, fresh filter pads will be used.
- c) The repairer shall rectify thermal faults, attend oil leakages, problem of high operating winding & oil temperatures, problem of increasing dissolved gases, if any, observed in the repaired PTR, including all connected works to the satisfaction of JBVNL up to 2 years from the date of commissioning of repaired PTR. The satisfactory certificate shall be obtained from field officer not below the rank of Executive Engineer.
- d) The materials which are procured from listed vendors are to be supported by original invoice of manufacturer, invoices for proof of procurement of materials detailed below along with test certificates in originals may be furnished to the Executive Engineer(TRW) for issuing utilization clearance.

Sl.No.	Name of Material	Make/IS	Source of Supply
1	Winding wire (Copper strip/ Conductors)	1.Hindalco Ltd 2.Sterilite Ltd 3.Any of PGCIL Approved Make 4.Any of JBVNL approved Make	
2	Core lamination (CRGO)	1. Any of PGCIL approved make 2.Any of JBVNL approved make	
3	Insulation paper	1.H.Weidmann 2.Munksio 3.Krammer 4.Dupont 5.Elof Hansen 6. Any of PGCIL approved Make 7. Any of JBVNL Approved make.	

e)Furnish certificate issued by the inspecting officer, duly verifying the list of items mentioned below during IV stage inspection before V stage inspection.

Sl. No.	Description	Observed			Remarks
1	Megger Value at the time of Tanking	HV-E	LV-E	HV-LV	
2	Megger values between core to channel				
3	Megger values between core to core bolt				
4	Megger values between clamp to core Incomplete work from pre-tank tightening completed? If any				
6	Tapping lead connection tightening & ratio test				
7	Clearances on HV and LV side checked at the time of bushing fitting				
8	Fitting and accessories properly installed				
9	All gaskets replacement				
10	Leakages				
11	Nuts & bolts used with flat and spring washers				

Note: All IR values should be checked at least by 5KV digital megger.

**Applicable Standards**

IS 5: 2007	Specification for Colors for ready mixed paints and enamels
IS 104: 1979	Specification for ready mixed paint, brushing, zinc chrome, priming
IS 335 : 1993	Specification for New insulating oils
IS 649: 1997	Testing for steel sheets and strips and magnetic circuits.
IS 1576: 1992	Solid Pressboard for Electrical Purposes –Specification
IS 2026:1977 IEC 60076 -2004	Specification for Transformers
IS 2099 : 1986	Specification for Bushings for Alternating Voltages Above 1000 Volts
IS 2362:1993	Determination of water content in oil by Karl in oil Fischer Method – Test
IS 3347(Part I):1979	Dimensions for Porcelain Transformer Bushings for Use in Normal and Lightly
IS 4253: Part II:	
IS 4257(Part I):1981	Dimensions for Clamping Arrangements for Porcelain transformer Bushings - Part I: For 12 kV to 36 kV Bushings
IS 5082:1998	Wrought Aluminum and Aluminum Alloy bars, Rods , Tubes, Sections, Plates and Sheets for Electrical Applications
IS 5561 : 1970	Specification for Electric Connectors
IS 6103 : 1971	Specification for Testing of specific resistance of electrical insulating liquids
IS 6262 : 1971	Method of test for factor and dielectric constant of electrical insulating liquids
IS 6792:1992	Method for Determination of Electric Strength of Insulating Oil
IS 6600:1972	Guide for loading of Oil-immersed transformer
IS 7421: 1988	Specification for porcelain bushings for alternating voltages up to and including
IS 8603 (Part-1) : 1977	Dimension for porcelain bushing
IS 9335:1979	Cellulosic paper for electrical purpose
IS 10028: 1981	Code of Practice for Selection, Installation and Maintenance of Transformers
IS 12444: 1988	Specification for continuously cast and rolled electrolytic copper wire rods for
IS 398 : 1996 ( Part 1)	Al. stranded conductors
IS 13964: 1994	Methods of measurement of transformer and reactor sound levels
IEC 60156: 1995	Method of determination of electric strength of insulating oils.
IEC 60296: 2003	Specification for unused mineral insulating oils for transformers and switchgear

IEC 60529: 2001	Degrees of protection provided by enclosures (IP Code)
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### **31.Indemnity**

Agency shall undertake to fully indemnify JBVNL against all kinds of liabilities or damages, of whatsoever nature, including compensation arising from any accident to the person or property of those in Bidder/agency's employment or to any other person or properties including those of JBVNL, arising due to reasons attributable to any act, for the entire period of contract including period of warrantee. Within 7 days of empanelment of agency , the Agency shall submit Indemnity Bond in the format( provided later) to tender Issuing Authority.

**ANNEXURE-I****LIST OF MANPOWER WITH REQUIRED QUALIFICATION & EXPERIENCE**

<b>S/ N</b>	<b>Designation</b>	<b>Manpower</b>	<b>Work</b>	<b>Education Qualification and experience</b>
<b>Minimum Manpower Team for repair of Power transformer</b>				
<b>1</b>	Engineer/ Supervisor	1 Nos.	Carrying out for repairing of defective power transformer	Min. Qualification: Diploma in Electrical with 5 years practical experience in power transformer repairing/testing
<b>2</b>	Electrician/ Technician	2 Nos.	Carrying out for repairing of defective power transformer	Min. ITI trade in Electrical with 5 years practical experience in power transformer repairing/testing
<b>3</b>	Helper	2 Nos.	Assistance to Technicians/ Electrician for repairing of defective power transformer	Min. 10 <sup>th</sup> Pass with 3 years' experience and basic knowledge of electrical equipment and wiring.
<b>Minimum Manpower Team for testing of Power transformer</b>				
<b>1</b>	Engineer/ Supervisor	1 Nos.	Carrying out for testing of defective power transformer	Min. Qualification: Diploma in Electrical with 5 years practical experience in power transformer repairing/testing
<b>2</b>	Electrician/ Technician	2 Nos.	Carrying out for desired/required testing of Power Transformer	Min. ITI trade in Electrical with 5 years practical experience in power transformer repairing/testing
<b>3</b>	Helper	2 Nos.	Assistance to Technicians/ Electrician/ for desired testing of Power Transformer	Min. 10 <sup>th</sup> Pass with 3 years' experience and basic knowledge of electrical equipment and wiring.

**Note:**

1. The agency is expected to provide the above-mentioned manpower for Transformer repairing works.
2. The bidder must submit an undertaking assuring to deploy the team for Transformer repairing works with the required qualifications & experience as specified above.

**ANNEXURE-II****TENTATIVE LIST OF TOOLS & PLANTS ESSENTIAL**

<b>S/ N</b>	<b>Name of Tools &amp; Plants</b>
<b>1</b>	<b>Crane/Hydra</b>
<b>2</b>	Oil Filtration Plant
<b>3</b>	Winding machine for winding of PTR windings
<b>4</b>	Multi-meter
<b>5</b>	Insulating Paper wrapping Machine
<b>6</b>	Vacuum drying chamber
<b>7</b>	Digital Meggar (5kV)
<b>8</b>	Automatic digital capacitance & Tan Delta measuring instrument
<b>9</b>	Digital Winding resistance Instrument
<b>10</b>	Digital turns ration meter
<b>11</b>	Analyzer
<b>12</b>	Adequate rating of cables for measuring load losses and impedance as per IS 2026
<b>13</b>	Sufficient No.of sensors for measuring top & bottom oil temperature for testing
<b>14</b>	Digital flow meter for measuring the quality of transformer oil during filling
<b>18</b>	Vehicle for Transportation
<b>20</b>	Gas light torch
<b>21</b>	Hand Gloves
<b>22</b>	Safety Shoes
<b>23</b>	Safety belt
<b>24</b>	Safety Helmet
<b>25</b>	Any other Tools required for repairing of PTR with safety standard.

**ANNEXURE-III****TENTATIVE LIST OF MATERIALS**

<b>S/ N</b>	<b>Description of Material</b>
<b>1</b>	New Transformer Oil
<b>2</b>	Bucholtz Relay
<b>3</b>	11 kV Bushing
<b>4</b>	33 kV Bushing
<b>5</b>	RC sheet
<b>6</b>	Bakelite Tube
<b>7</b>	Cotton Tape
<b>8</b>	Fevicol
<b>9</b>	Holdite
<b>10</b>	DA Grey Paint
<b>11</b>	Caustic Soda
<b>12</b>	M-Seal
<b>13</b>	PVC Tape
<b>14</b>	Cotton Waste
<b>15</b>	Markin Cloths
<b>16</b>	Nuts & Bolts of various sizes
<b>17</b>	Grease/ Jelly
<b>18</b>	Hand wire Brush
<b>19</b>	HT tape
<b>20</b>	Lugs of various sizes
<b>21</b>	Ferrules of various sizes
<b>22</b>	Anti-tracking spray
<b>23</b>	Spares Parts/ Materials for repair of Power Transformer
<b>24</b>	Any other Material required for completion of work

## Section- III: Forms

### FORM-A

#### Tender Proforma for Part – I (Technical & Commercial)

##### Check-List-A

S/ N	Parameters	
1.	Name & Full address of the Bidder (with Tel no.)	
2.	Name of Work	
3.	Name of Manufacturer/Repairer	
4.	Whether firm quoted price part Y/N	
5.	Delivery period	<b>60 days from issuance of Work Order</b>
6.	Validity of the offer	<b>180 Days</b>
7.	Acceptance of the terms of payment	
8.	Acceptance of terms of security deposit	
9.	Details of deviation from the tender specification if any:	
10.	Acceptance of warrantee clause	
11.	Acceptance of penalty clause	
12.	Whether the firm is registered SSI unit of Jharkhand: or registered with NSIC/DGS &D (give details of Registration etc. along with photocopy of certificate) for the said items	
13.	Whether GST clearance certificate submitted	Yes/ No
14.	GSTIN No.	Yes/ No
15.	Whether EPF & ESI Registration submitted	Yes/ No
16.	Whether Net worth of the firm positive or not	Yes/ No
17.	Whether proof of financial capability Submitted	Yes/ No
18.	Details of past performance	
i)	Whether list of past PO/W.Os executed submitted	Yes/ No
ii)	Whether copies of past Pos submitted	Yes/ No
iii)	Whether copies of performance Certificate enclosed	Yes/ No
19.	List of enclosures	Yes/ No
20.	Whether bidder is accepting General Terms and: Conditions of NIT	
21.	Annual Turnover for best three Years out	



S/ N	Parameters	
	of last 5 Financial Years:	
22.	Remarks	

**Signature of Bidder with full name**

**Designation: .....**

**Seal: .....**

**FORM-B**

**SELF DECLARATION CERTIFICATE**

It is hereby declared that there is no outstanding payment of **GST and Income Tax** of M/s..... up to date & nothing is due with Commercial and Income Tax Department.

**Date:**

**Name & Signature of the Bidder & Seal**

**FORM- C****SCHEDULE OF DEVIATIONS FROM SPECIFICATIONS**

<b>S/N</b>	<b>SPECIFICATION / CLAUSE</b>	<b>DEVIATION FROM SPECIFICATION (commercial &amp; technical)</b>	<b>JUSTIFICATION FOR DEVIATION</b>

**Place:****Signature of Bidder Date:****Stamp:**

**NOTE:** - *In case of not mentioning deviations in this deviation sheet & mentioning it elsewhere in the offer except in the tender proforma for part-1 (techno commercial), will be treated as no Deviations.*

**FORM-D**

**SELF DECLARATION CERTIFICATE**  
**on India Non-Judicial Stamp of Rs. 100/- or more**

Sri..... of M/s..... with head office.....  
being their authorized signatory, do hereby solemnly affirm and declare that  
M/s..... has not been **Blacklisted/ Debarred** by any Organization in  
India/State/Central Govt. or any of its agencies for the tendered item and no blood relation is working in  
JBVNL.

If this declaration is found wrong at any subsequent time and further, I understand to compensate the JBVNL,  
for the consequences arising out of wrong declaration.

**Date:**

**Name & Signature of the Bidder & Seal**

**FORM-E**

**SELF DECLARATION CERTIFICATE**

**on India Non-Judicial Stamp of Rs. 100/- or more**

It is hereby declared that M/s..... has **no Litigation history** with any Organization in India/State/Central Govt. or any of its agencies for the tendered item.

**Date:**

**Name & Signature of the Bidder & Seal**

**FORM-F****FORM FOR INDICATING PREFERENCE for work under Area Board**

Date: .....

S. No.	Area Board	Preference*
1	Ranchi	
2	Jamshedpur	
3	Dhanbad	
4	Hazaribagh	
5	Giridih	
6	Dumka	
7	Medininagar	

**Signature & Name****Authorized Representative of the Bidder****\* Note:**

In view of the geographical spread of JBVNL's substations and to ensure timely transportation and service delivery for Power Transformer (PTR) repair work, bidders are required to indicate their Area Board-wise preferences based on the proximity of their workshop(s).

**1. Area Board Preference Submission:**

- Bidders shall indicate their preference order for the Area Boards (Ranchi, Hazaribagh, Daltonganj, Dumka, Jamshedpur, Giridih, and Medininagar) using a ranking from '1' to '7'.
- '1' indicates the most preferred Area Board and '7' the least preferred.
- Bidders may exclude any Area Board by clearly mentioning 'NA' against that Area Board.

**2. Empanelment Discretion:**

- JBVNL reserves the right to empanel the bidder for any of the Area Boards indicated in the bidder's preference list.
- The final allocation will be based on operational requirements and sole discretion of JBVNL.

**3. Non-Performance & Responsibility:**

- If a bidder is allocated any Area Board based on its preference and fails to provide services for that Area Board, such failure shall be treated as non-performance, and suitable action may be taken including de-empanelment and forfeiture of EMD/PBG.

**4. Preference Based on Workshop Location:**

- Bidders are advised to give their Area Board preferences in line with the geographical proximity of their nearest workshop(s).
- This is essential to minimize transportation time and cost, and ensure adherence to completion timelines.
- Declaration of false proximity or capability may lead to rejection of the bid or cancellation of empanelment.

*Note: JBVNL reserves the sole right to empanel any agency for any Area Board, either singly or jointly, based on its requirement, technical suitability. The decision of JBVNL in this regard shall be final and binding on all participating agencies, and no claims whatsoever shall be entertained.*

**FORM-G****Check List-B**

<b>Sl. No.</b>	<b>Documents/Particulars</b>	<b>Submitted Yes/No.</b>
1	Tender Fee Receipt	
2	EMD Receipt / MSME Exemption	
3	CA Certified MAAT- Minimum Annual Turn Over & Audited Financial Statements and CA Certified Net worth	
4	Incorporation certificate Memorandum of Articles of Association/Proprietorship/Partnership of firm	
5	Electrical License	
6	GST of Firm & Latest GSTR-3B	
7	PAN	
8	Clearance Certificate from State Pollution Control Board/Any related Authority.	
9	List of machinery	
10	Past Experience & Performance Certificates of the executed work (at least 1 in last 7 years)	
11	Approved GTPs and Drawings of the Transformers executed.	
12	Documents of skilled and semi-skilled workers	
13	Calibration Certificates of factory Equipment	
14	EPF & ESI Registration	
15	Bid Validity Period- 180 days from the date of opening of technical Part.	
16	Bank Solvency	
17	Form- A	
18	Form -B	
19	Form- C	
20	Form- D	
21	Form- E	
22	Form- F	
23	Form-G	

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