

TENDER NOTIFICATION FOR

“AWARD OF WORK FOR REPAIRING OF DRY TYPE DISTRIBUTION TRANSFORMERS OF RATING OF 1000 KVA & 400 KVA IN BRPL”

CMC/BR/21-22/RB/CR/AG/0970 DT.15.12.2021

Due Date for Submission of Tender: 04.01.2022, 3.30PM

Date and Time of opening: 04.01.2022, 3:45 PM

BSES RAJDHANI POWER LIMITED,

BSES Bhawan, Nehru Place, New Delhi-110019

Corporate Identification Number: U74899DL2001PLC111527

Telephone Number: +91 11 49207235

Website : www.bsedelhi.com

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REQUEST FOR QUOTATION

1.1 GENERAL:

BSES Rajdhani Power Limited invites sealed tenders in 2 envelopes for **“AWARD OF WORK FOR REPAIRING OF DRY TYPE DISTRIBUTION TRANSFORMERS OF RATING OF 1000 KVA & 400 KVA IN BRPL”**.

1.01 The bidder must qualify the requirements as specified in clause 1.3 stated below. **The sealed envelopes shall be duly superscribed as-**

“AWARD OF WORK FOR REPAIRING OF DRY TYPE DISTRIBUTION TRANSFORMERS OF RATING OF 1000 KVA & 400 KVA IN BRPL”.
CMC/BR/21-22/RB/CR/AG/0970 DT.15.12.2021

BRPL invites sealed tenders from eligible bidders for the above-mentioned work (clause 1.01).

Estimated cost of work	: Rs.60, 00,000 /-
Earnest money Deposit	: Rs 1, 20,000/-
Cost of Tender form (Non- Refundable)	: Rs.1180/- (including GST)
Duration of the Work	: 120 days (from date of issue of LOI/order)
Tender documents on sale	: (working days)
Date & time of Submission of Tender	: 04.01.2022 till 15:30 HRS
Date & time of opening of Tender (Opening of technical bid)	: 04.01.2022, 15:45HRS on

The tender document can be obtained from address given below against submission of non-refundable demand draft of **Rs.1180/- (including GST)** drawn in favour of BSES Rajdhani Power Ltd, payable at Delhi:

Head of Department,
Contracts & Material Dept.
BSES Rajdhani Power Limited
I Floor, “C” Block, BSES Bhawan
Nehru Place
New Delhi-110019

Details of BRPL for tender fee submission are as under:

Beneficiary Name: BSES Rajdhani Power Limited
Bank Name : Bank of Baroda
A/c No. : 10590200001560
IFSC Code : BARB0NEHRUP

The tender papers will be issued on all working days up to the date mentioned in clause 1.01. The tender documents & detail terms and conditions can also be downloaded from the website www.bsesdelhi.com. In case tender papers are downloaded from the above website, then the bidder has to enclose a separate demand draft covering the cost of bid documents.

1.2 POINTS TO BE NOTED

1.2.1 Works envisaged under this contract are required to be executed in all respects up to the period of completion mentioned above.

1.2.2 Only those agencies, who fulfill the qualifying criteria as mentioned in clause 1.3 should submit the tender documents.

1.2.3 Tender document consists of the following:

- a) Request for Quotation
- b) Instructions to Bidder
- c) Commercial Terms and Conditions
- d) Estimated Tender Cost
- e) Scope of Work
- f) Price Format
- g) Bid Form
- h) Performa of Contract Performance Bank Guarantee
- i) Format for EMD Bank Guarantee
- j) Terms & Conditions for Reverse Auction

1.2.4 The Contract shall be governed by the documents listed in para 1.2.3 above.

1.2.5 BSES Rajdhani Power Ltd reserves the right to accept/reject any or all Tenders without assigning any reason thereof and alter the quantity of materials mentioned in the Tender documents at the time of placing purchase/ work orders. Tender will be summarily rejected if:

If Earnest Money Deposit (EMD) of requisite amount is not deposited in shape of Bank Draft/Pay Order/BG drawn in favour of BSES Rajdhani Power Ltd, payable at Delhi as per below:

Please note that bank details as below have been provided only for the purpose of making BG for EMD.

(i)

Beneficiary Name: BSES Rajdhani Power Limited

Bank Name : State Bank of India

A/c No. : 40214783615

IFSC Code : SBIN0009601

(ii) If Tender is received after due date and time.

1.2.6 Please note that abnormally higher or abnormally lower bids shall not be considered with respect to estimated cost. The criteria decided by BRPL on this

shall be final. Further formation of cartel and indulging in any unfair business practice shall be a negative for the bidders and be liable for rejection of the bid.

1.3 Qualifying Criteria

A. Technical & Commercial:

The prospective bidder must qualify all of the following requirements to be eligible to participate in the bidding:

Technical Qualifying Criteria:

1. Bidder must have experience of 5 years in Manufacturing or Repairing of Dry type transformers and should have supplied or repaired 10 nos. Dry type transformer of various ratings of 400KVA and above.
2. The bidder shall attach relevant work orders and performance certificate of minimum 2 nos. from SEBs/ Govt. Department/ Public or Private Sector Utility/ Discoms client for the repaired/manufactured Dry type transformers.
3. The bidders should have qualified technical & qualified QA personnel at various stages of manufacturing & testing.
4. The Bidder must possess valid ISO 9001:2015 certification.
5. In case of new bidders (not enlisted in BRPL), Factory Inspection & evaluation shall be carried out to ascertain bidders manufacturing capabilities and quality procedures. BRPL reserves the right to assess the manufacturing/repairing ability.

Commercial Qualifying Criteria:

- 1) Bidder must provide proof of having average annual turn over of Rs. 2 Cr. or above during the last three financial years (FY 18-19, FY 19-20 & FY 20-21). In case the audited balance sheet is not available with the bidder for 20-21, the bidder shall submit the audited balance sheet for FY 17-18 or turnover certified by the auditor of the firm for FY 20-21.
- 2) Bidder must provide proof of having solvency of an amount equal to Rs. 50 Lacs or more from any nationalized/ scheduled commercial bank.
- 3) Bidder should have valid Registration No. of GST.
- 4) Bidder should have PAN No & should fulfill all statutory compliances like PF, ESI registration.
- 5) Duly signed & stamped tender documents submitted with all annexure.
- 6) Declaration on bidder's letter head on Pending Legal case / penalty levied (if any) against Statutory non- compliances on a/c of PF / ESI / Bonus / Gratuity etc.

- 7) Entities that have been debarred/blacklisted by any Private/central/state government institution including electricity boards in India will not be considered; in this regard a written statement has to be provided on bidder's letterhead along with other documents. Vendors/ Agencies who have been debarred/ blacklisted/ suspended by BRPL in last 3 financial years will not be considered in this tender.
- 8) The bidder should submit an undertaking for “No Litigation” / no legal case is pending with BRPL or its Group Companies. Bidders having any litigation/ legal case pending with BRPL shall not be considered qualified for this tender.

The bidder should give an undertaking on their letterhead that all the documents/certificates/information submitted by them against the tender are genuine/true/correct and the copies of documents have been made from the original document/s. Further in case any of the documents/certificates/information submitted by the bidder is found to be false or forged, BRPL at its sole discretion shall be free to take all actions as permitted under law, including forfeiture of EMD and disqualification from participation in the future tenders for 1 year in BRPL & its group companies.

Please note that by participation in tender and submission of bid, the bidder authorize BRPL to verify the bidder's credentials like work order copies, performance certificates etc. submitted by the bidder from the respective issuing client. If required, BRPL may also direct the bidder to provide the required contact details of the client who can confirm the authenticity of the documents submitted to facilitate the verification process within the timelines provided by BRPL. That upon demand the bidder shall be providing such details to BRPL within timelines provided by BRPL. Further in case any of the documents/certificates/information submitted by the bidder is found to be false or forged or the default from the side of bidder in providing the details for verification, BRPL at its sole Discretion shall be free to take all actions as permitted under law, including forfeiture of EMD disqualification from participation in the future tenders for 1 year in BRPL & its group companies.

The bidder shall submit all necessary documentary evidence to establish that the Bidder meets the above qualifying requirements.

- a) Firms who are debarred/ blacklisted in other utilities in India will not be considered.
- b) Company reserves the right to carry out technical capability/ infrastructure assessment of the Bidders by factory/office inspection or by any other means and company's decision shall be final in this regard.
- c) No joint ventures/ consortiums are allowed.

Also, the Bidder shall furnish the following commercial & technical information along with the tender:

- a) Last three Financial Years (FY 18-19, FY 19-20 & FY 20-21) audited financial statement.

- b) Bidder to submit UDIN based CA Certificate showing upto date all statutory compliance like GST returns/ PF and ESI returns etc. i.e upto FY 20-21.
- c) Detail of Banker & Cash Credit limit
- d) Details of constitution of the company (Proprietary/ Limited/ Pvt. Ltd. Along with details)
- e) Memorandum & Articles of Association of the Company
- f) Organization Chart of the company
- g) Experience details with credentials

Please note: For Existing vendors/ registered vendors of BRPL, evaluation will also include the past performance in the contracts via-a-vis performance in terms of HR issues, all statutory Compliance parameters and wages disbursement by Vendors. BRPL reserves the right to disqualify their bid based on the above performance parameters in spite of them meeting the above qualification criteria.

BRPL reserves the right to disqualify any bidder in spite of the bidders meeting the above Qualifying requirements. The decision of BRPL shall be final & binding on the bidders.

BRPL may ask for any other document as may be required to substantiate/ justify the submissions made by bidders.

1.4 Bidding and Award Process:-

Bidders are requested to submit their offer strictly in line with this tender document. NO DEVIATION IS ACCEPTABLE. The bidder should submit complete tender documents signed and stamped with bidder's seal as an acceptance to all terms & conditions of the Tender.

BRPL shall respond to the clarifications raised by various bidders and the same will be distributed to all participating bidders through website.

1.4.1 BID SUBMISSION:

The bidders are required to submit the bid in 2 (two) parts and submit in original + one copy to the following address

Head of Department
Contracts & Material Deptt.
BSES Rajdhani Power Ltd
1st Floor, C-block, BSES Bhawan,
Nehru Place,
New Delhi 110019

PART A: TECHNICAL BID comprising of following:

- a. EMD of requisite amount
- b. Non-refundable separate demand draft for Rs. 1180/-
In case the forms are downloaded from the website
- c. Documentary evidence in support of qualifying criteria
- d. A detailed write up citing strategy, plan methodology and deliverables of the project.
- e. Technical Literature if any.
- f. Any other relevant document
- g. Acceptance to Commercial Terms and Conditions viz Delivery schedule/period, Payment terms, BG etc
- h. Acceptance to Technical Specifications
- i. Complete tender documents signed and stamped with bidder's seal as an acceptance to all terms & conditions of the Tender.

PART B: FINANCIAL BID comprising of

* Prices strictly in the Format enclosed in (SECTION IV)

Table 1 Bid Process Timelines

S. No.	Steps	Comprising of	Due date
1	Pre-Bid Clarifications Meeting	All Queries related to RFQ shall be clarified Through pre bid meeting. For this the bidder shall send their queries before 24.12.2021 at the following contacts: Technical queries: Mr. Amit Tomar and Mr. Mukesh Kumar sharma Contact No. 011-4920-7306 Mail Id: amit.as.tomar@relianceada.com, Mail Id: mukeshkumar.sharma@relianceada.com Commercial queries: Mr. Ananda Raj (Head C&M), Mail Id: ananda.raj@relianceada.com Contact No. 011-4920-9429, Mail id : anima.gaur@relianceada.com	Pre Bid Meeting shall be through WebEx on 24th Dec 2021 at 03:00 PM for addressing all Queries related to RFQ on following link:- https://bsesbrpl.webex.com/join/rakesh.bansal
2	Submission of PART A Technical and Commercial Bid	EMD of requisite amount Non-refundable demand draft for Rs. 1180/- In case the forms are downloaded from the website Documentary evidence in support of qualifying criteria Any other relevant document. Acceptance to Commercial Terms and Conditions viz Delivery schedule/period, Payment terms, BG etc.	04.01.2022

3	Submission of PART B Technical and Commercial Bid	Price strictly in the Format enclosed (Section IV) indicating Break up regarding basic price, taxes & duties etc.	04.01.2022
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This is a two part bid process. Bidders are to submit the bids in 2(two) parts.

Both these parts should be furnished in separate sealed covers super scribing NIT no. DUE DATE OF SUBMISSION, with particulars as **PART-A TECHNICAL BID & COMMERCIAL TERMS & CONDITIONS** and **Part-B FINANCIAL BID** and these sealed envelopes should again be placed in another sealed envelope which should be super scribed with —“Tender Notice No. & Due date of opening“. The same shall be submitted before the due date & time specified.

Part – A: Technical Bid should not contain any cost information whatsoever and shall be submitted within the due date. After technical evaluation, the list of qualified bidders will be posted immediately on BSES website.

PART B: This envelope will be opened after technical evaluation and only of the qualified bidders.

FINANCIAL BID EVALUATION THROUGH REVERSE AUCTION:

Reverse auction shall be conducted for finalization of contract and the details of the price bid shall not be shared with bidders.

The qualified bidders will participate in reverse auction through SAP-SRM tool. The reverse auction process shall be governed by the terms and conditions enclosed as APEENDIX-I in this tender document. Training/details shall be provided to bidders before participation in auction.

Notwithstanding anything stated above, the Company reserves the right to assess bidders’ capability to perform the contract, should the circumstances warrant such assessment in the overall interest of the Company. In this regard the decision of the Company is final.

In case RA is not concluded/conducted for any reasons, a "final no regret" financial bid in a sealed envelope will be called for from all qualified bidders

1.4.2 Award Decision

- a) Company intends to award the business on a lowest bid basis, so contractors are encouraged to submit the bid competitively. The decision to place order/LOI solely depends on Company on the cost competitiveness across multiple lots, quality, delivery and bidder’s capacity, in addition to other factors that Company may deem relevant.
- b) The Company reserves all the rights to award the contract to one or more bidders so as to meet the delivery requirement or nullify the award decision without any reason.

c) Please note that abnormally higher or abnormally lower bids shall not be considered with respect to estimated cost. The criteria decided by BRPL on this shall be final and binding on the bidders.

d) In case any contractor is found unsatisfactory during the execution process, the award will be cancelled and BRPL reserves the right to award other contractors who are found fit.

e) “Nil/Zero” Margin or Administrative Service Charges of Bidders will be considered as “Unresponsive”. Abnormally higher or abnormally lower bids shall not be considered with respect to estimated cost. The criteria decided by BRPL on this shall be final and binding on the bidders and will not be open for discussion under any circumstances. Therefore, the bidding firms are advised to quote their Margin / Administrative Service Charges accordingly. BRPL reserves the right to reject the bids quoted with abnormally higher or abnormally lower individual activity rates. The criteria decided by BRPL on this shall be final and binding on the bidders.

f) BSES reserves the right to split the tender quantity amongst techno-commercially qualified bidders on account of delivery requirement in tender, quantity under procurement etc.

BRPL reserves the right to reject the bids quoted with abnormally higher or abnormally lower individual activity rates. The criteria decided by BRPL on this shall be final and binding on the bidders.

1.4.3 Market Integrity

We have a fair and competitive marketplace. The rules for bidders are outlined in the Terms & Conditions. Bidders must agree to these rules prior to participating. In addition to other remedies available, we reserves the right to exclude a bidder from participating in future markets due to the bidder’s violation of any of the rules or obligations contained in the Terms & Condition. Bidders who violate the marketplace rules or engage in behavior that disrupts the fair execution of the marketplace restricts a bidder to length of time, depending upon the seriousness of the violation. Examples of violations include, but are not limited to:

- Failure to honor prices submitted to the market place.
- Breach of the terms of the published in Request for Quotation/NIT.

1.4.4 Confidentiality

All information contained in this RFQ is confidential and may not be disclosed, published or advertised in any manner without written authorization from BRPL. This includes all bidding information submitted.



BSES Rajdhani Power Limited

All RFQ documents remain the property of BRPL and all bidders are required to return these documents to BRPL upon request.

Bidders who do not honor these confidentiality provisions will be excluded from participating in future bidding events.

1.5 Contact Information

Technical clarification, if any, as regards this RFQ shall be sought in writing and sent by post/courier to following address

	Technical	Commercial
Contact Person	Head (TSG), BRPL Copy to :Head (C&M)	Head (C&M)
Address	BSES Rajdhani Power Ltd , BSES Bhawan. Nehru Place, New Delhi - 110019	C&M Deptt. 1 st Floor , C-Block, BSES Rajdhani Power Ltd BSES Bhawan, Nehru Place, New Delhi 110019

SECTION – II: INSTRUCTION TO BIDDERS

1.0 GENERAL

BSES Rajdhani Power Ltd, hereinafter referred to as “The Company” is desirous of awarding a work for “Repairing of Dry Type Distribution Transformers of Rating of 1000 KVA & 400 KVA in BRPL”.

1. Bids shall be prepared and submitted in accordance with these instructions.
2. Bidder shall bear all costs associated with the preparation and delivery of its Bid, and the Company will in no case shall be responsible or liable for these costs. Bids shall remain valid & open for acceptance for a period of 120 days from the date of opening of the Bid.
3. The Bid should be submitted by the Bidder in whose name the bid document has been issued and under no circumstances it shall be transferred/ sold to the other party.
4. Issue of RFQ is not deemed as qualified for the job. BRPL’s assessment of the bidders capability to execute the job and decision of BRPL to qualify the bidder shall be final. The Company reserves the right to request for any additional information and also reserves the right to reject the proposal of any Bidder, if in the opinion of the Company, the data in support of RFQ requirement is incomplete.
5. The Bidder is expected to examine all instructions, forms, terms & conditions and specifications in the Bid Documents. No deviation to the terms & conditions shall be accepted. Failure to furnish all information required in the Bid Documents or submission of a Bid not substantially responsive to the Bid Documents in every respect may result in rejection of the Bid. However, the Company’s decision in regard to the responsiveness and rejection of bids shall be final and binding without any obligation, financial or otherwise, on the Company.
6. The price format shall legibly handwritten in ink by the bidder. Printed price format shall not be allowed.
7. Company reserves the right to award the work to one or more bidders.
8. The decision to place order/LOI is the sole prerogative of the company.
9. In case any vendor is found unsatisfactory post award of contract, the award will be cancelled and BRPL reserves the right to award other vendors who are found capable.
10. The Company reserves the right to accept or reject any Bid and to annul the Bidding process and reject all Bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Company’s action.

2.0 SCOPE OF WORK

The complete scope of work has been defined in relevant section of this tender document.

The Bidder shall mandatorily submit bids for relevant tender.

3.0 DISCLAIMER

3.01 This Document includes statements, which reflect various assumptions, which may or may not be correct. Each Bidder/Bidding should conduct its own estimation and analysis and should check the accuracy, reliability and completeness of the information in this Document and obtain independent advice from appropriate sources in their own interest.

3.02 Neither Company nor its employees will have any liability whatsoever to any Bidder or any other person under the law or contract, the principles of restitution or unjust enrichment or otherwise for any loss, expense or damage whatsoever which may arise from or be incurred or suffered in connection with anything contained in this Document, any matter deemed to form part of this Document, provision of Services and any other information supplied by or on behalf of Company or its employees, or otherwise arising in any way from the selection process for the work.

3.03 Though adequate care has been taken while issuing the Bid document, the Bidder should satisfy itself that Documents are complete in all respects. Intimation of any discrepancy shall be given to this office immediately.

3.04 This Document and the information contained herein are Strictly Confidential and are for the use of only the person(s) to whom it is issued. It may not be copied or distributed by the recipient to third parties (other than in confidence to the recipient's professional advisors).

4.0 COST OF BIDDING

The Bidder shall bear all cost associated with the preparation and submission of its Bid and the company will in no case be responsible or liable for those costs.

5.0 BIDDING DOCUMENTS

5.01 The Scope of Work, Bidding Procedures and Contract Terms are described in the Bidding Documents. In addition to the covering letter accompanying Bidding Documents, the Bidding Documents include:

SECTION I	Request For Quotation
SECTION II	Instructions to Bidder
SECTION III	Commercial Terms & Conditions
SECTION V	Scope of Work
SECTION VI	Price Format

5.02 The Bidder is expected to examine the Bidding Documents, including all Instructions, Forms, Terms and Specifications. Failure to furnish all information required by the Bidding Documents or submission of a Bid not substantially responsive to the Bidding Documents in every respect will may result in the rejection of the Bid.

6.0 AMENDMENT OF BIDDING DOCUMENTS

6.01 At any time prior to the deadline for submission of Bids, the Company may for any reasons, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the Bidding Documents by Amendment.

6.02 The Amendment shall be part of the Bidding Documents, pursuant to Clause 5.01, and it will be notified in writing by Fax/e-mail to all the Bidders who have received the Bidding Documents and confirmed their participation to Bid, and will be binding on them.

6.03 In order to afford prospective Bidders reasonable time in which to take the Amendment into account in preparing their Bids, the Company may, at its discretion, extend the deadline for the submission of Bids.

7.0 PREPARATION OF BIDS

7.1 LANGUAGE OF BID

The Bid prepared by the Bidder, and all correspondence and documents relating to the Bid exchanged by the Bidder and the Company, shall be written in the English Language. Any printed literature furnished by the Bidder may be written in another Language, provided that this literature is accompanied by an English translation, in which case, for purposes of interpretation of the Bid, the English translation shall govern.

8.0 DOCUMENTS COMPRISING THE BID

The Bid prepared and submitted by the Bidder shall comprise the following components:

- (a) Bid Form ,Price & other Schedules (STRICTLY AS PER FORMAT) and Technical Data Sheets completed in accordance with Technical Specification.
- (b) All the Bids must be accompanied with the required EMD as mentioned in the Section-I against each tender.

9.0 BID FORM

9.1 The Bidder shall submit "Original" Bid Form and the appropriate Price Schedules and technical specifications enclosed with the Bidding Documents.

10.0 EMD (EARNEST MONEY DEPOSIT)

The bidder shall furnish, as part of its bid, an EMD of requisite amount as already specified in the Section-I. The EMD is required to protect the Company against the risk of Bidder's conduct which would warrant forfeiture. The EMD shall be denominated in any of the following form:

- (a) Demand Draft/Pay Order drawn in favour of BSES Rajdhani Power Ltd, payable at Delhi.
- (b) BG from nationalized / Scheduled bank in favour of BSES Rajdhani Power Limited valid for 6(six) months after last date of receipt of tenders

The bidders who are not technically qualified, EMD shall be refunded after price bid opening.

Earnest money given by all the bidders who are techno commercially qualified except the lower bidder shall be refunded within 8 (Eight) weeks after award of the work.

The amount of EMD by the successful bidder shall be returned on submission of CPBG as per tender terms.

The EMD may be forfeited in case of:

- (a) if the Bidder withdraws its bid during the period of bid validity specified by the Bidder in the Bid Form or
- (b) in the case of a successful Bidder, if the Bidder does not
 - (i) Accept the Purchase Order/Work Order, or
 - (ii) Furnish the required performance security BG.
- (c) If the bidder is found to have submitted false or forged any of the documents/certificates/information

11.0 BID PRICES

11.01 Bidders shall quote for the entire Scope of work with prices for individual items. The tenderer is required, at his expense, to obtain all the information he may require to enable him to submit his tender including necessary visits to the site to ascertain the local conditions, procurement of necessary materials, labour, etc., requirements of the local/government/public authorities in such matters.

Prices quoted by the Bidder shall be "Firm" and not subject to any price adjustment during the performance of the Contract. **A Bid submitted with an adjustable price/PVC will be treated as non-responsive and rejected.**

12.0 BID CURRENCIES

Prices shall be quoted in Indian Rupees Only.

13.0 PERIOD OF VALIDITY OF BIDS

- 13.01 Bids shall remain valid & open for acceptance for a period of 120 days from the date of opening of the Bid.
- 13.02 Notwithstanding Clause 13.01 above, the Company may solicit the Bidder's consent to an extension of the Period of Bid Validity. The request and the responses thereto shall be made in writing and sent by Fax/post/courier.

14.0 ALTERNATIVE BIDS

Bidders shall submit Bids, which comply with the Bidding Documents. Alternative Bids will not be considered. The attention of Bidders is drawn to the provisions regarding the rejection of Bids in the terms and conditions, which are not substantially responsive to the requirements of the Bidding Documents.

15.0 FORMAT AND SIGNING OF BID

- 15.01 The original Bid Form and accompanying documents(as specified in Clause 9.0),clearly marked "Original Bid", must be received by the Company at the date, time and place specified pursuant to Clauses 15.0 and 16.0.
- 15.02 The original copy of the Bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to sign on behalf of the Bidder. Such authorization shall be indicated by written Power-of-Attorney accompanying the Bid.
- 15.03 The Bid shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by the Bidder, in which case such corrections shall be initialed by the person or persons signing the Bid.
- 15.04 Bid shall be signed with stamp by the bidder on all the pages.

D. SUBMISSION OF BIDS

16.0 SEALING AND MARKING OF BIDS

- 16.01 Bid submission: One original (hard copies) of all the Bid Documents shall be sealed and submitted to the Company before the closing time for submission of the bid.
- 16.02 The Technical Documents and the EMD shall be enclosed in a sealed envelope and the said envelope shall be superscribed with — Technical Bid & Commercial Terms & Conditions “. The price bid for both the options to be submitted in separate sealed envelopes and shall be inside another sealed envelope with superscribed — “Financial Bid “. Both these envelopes shall be sealed inside another big envelope. All the envelopes should bear the Name and Address of the Bidder and marking for the Original. The envelopes should be superscribed with —“Tender Notice No. & Due date of opening“.
- 16.03 The Bidder has the option of sending the Bids in person. Bids submitted by



BSES Rajdhani Power Limited

Email/Telex/Telegram /Fax will be rejected. No request from any Bidder to the Company to collect the proposals from Courier/Airlines/Cargo Agents etc shall be entertained by the Company.

17.0 DEADLINE FOR SUBMISSION OF BIDS

17.01 The original Bid must be timely received by the Company at the address specified in Section-I

17.02 The Company may, at its discretion, extend the deadline for the submission of Bids by amending the Bidding Documents in accordance with Clause 9.0, in which case all rights and obligations of the Company and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

18.0 ONE BID PER BIDDER

Each Bidder shall submit only one Bid by itself. No Joint Venture/Consortium is acceptable. A Bidder who submits or participates in more than one Bid will cause all those Bids to be rejected.

19.0 LATE BIDS

Any Bid received by the Company after the deadline for submission of Bids prescribed by the Company, pursuant to Clause 16.0, will be declared "Late" and rejected and returned unopened to the Bidder.

20.0 MODIFICATIONS AND WITHDRAWAL OF BIDS

20.01 The Bidder is not allowed to modify or withdraw its Bid after the Bid's submission.

E. EVALUATION OF BID

21.0 PROCESS TO BE CONFIDENTIAL

Information relating to the examination, clarification, evaluation and comparison of Bids and recommendations for the award of a contract shall not be disclosed to Bidders or any other persons not officially concerned with such process. Any effort by a Bidder to influence the Company's processing of Bids or award decisions may result in the rejection of the Bidder's Bid.

22.0 CLARIFICATION OF BIDS To assist in the examination, evaluation and comparison of Bids, the Company may, at its discretion, ask the Bidder for a clarification of its Bid. All responses to requests for clarification shall be in writing and no change in the price or substance of the Bid shall be sought, offered or permitted.

23.0 PRELIMINARY EXAMINATION OF BIDS / RESPONSIVENESS

- 23.01 Company will examine the Bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the Bids are generally in order.
- 23.02 Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price per item that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price per item will be corrected. If there is a discrepancy between the Total Amount and the sum of the total price per item, the sum of the total price per item shall prevail and the Total Amount will be corrected.
- 23.03 Prior to the detailed evaluation, Company will determine the substantial responsiveness of each Bid to the Bidding Documents including production capability and acceptable quality of the Goods offered. A substantially responsive Bid is one, which conforms to all the terms and conditions of the Bidding Documents without material deviation.
- 23.04 Bid determined as not substantially responsive will be rejected by the Company and/or the Company and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

24.0 EVALUATION AND COMPARISON OF BIDS

- 24.01 The evaluation of Bids shall be done based on the delivered cost competitiveness basis.
- 24.02 The evaluation of the Bids shall be a stage-wise procedure. The following stages are identified for evaluation purposes: In the first stage, the Bids would be subjected to a responsiveness check. The Technical Proposals and the Conditional ties of the Bidders would be evaluated.

Subsequently, the Financial Proposals along with Supplementary Financial Proposals, if any, of Bidders with Techno-commercially Acceptable Bids shall be considered for final evaluation.

- 24.03 The Company's evaluation of a Bid will take into account, in addition to the Bid price, the following factors, in the manner and to the extent indicated in this Clause:
- a) Work completion schedule
 - b) Conformance to Qualifying Criteria
 - c) Deviations from Bidding Documents

Bidders shall base their Bid price on the terms and conditions specified in the Bidding Documents. No deviation to the bid terms and conditions shall be acceptable.

- 24.04 Any adjustments in price, which result from the above procedures, shall be added for the purposes of comparative evaluation only to arrive at an "Evaluated Bid Price". Bid Prices quoted by Bidders shall remain unaltered.

F. AWARD OF CONTRACT

25.0 CONTACTING THE COMPANY

25.01 From the time of Bid opening to the time of contract award, if any Bidder wishes to contact the Company on any matter related to the Bid, it should do so in writing.

25.02 Any effort by a Bidder to influence the Company and/or in the Company's decisions in respect of Bid evaluation, Bid comparison or Contract Award, will result in the rejection of the Bidder's Bid.

26.0 THE COMPANY'S RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS

The Company reserves the right to accept or reject any Bid and to annul the Bidding process and reject all Bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Company's action.

27.0 AWARD OF CONTRACT

The Company will award the Contract to the successful Bidder whose Bid has been Determined to be the lowest-evaluated responsive Bid, provided further that the Bidder has been determined to be qualified to satisfactorily perform the Contract. Company reserves the right to award order other bidders in the tender.

28.0 THE COMPANY'S RIGHT TO VARY QUANTITIES

The Company reserves the right to vary the quantity i.e. increase or decrease the numbers/quantities to any extent without any change in rates terms and conditions during the validity of the contract.

29.0 LETTER OF INTENT/ NOTIFICATION OF AWARD

The letter of intent/ Notification of Award shall be issued to the successful Bidder whose bids have been considered responsive, techno-commercially acceptable and evaluated to be the lowest (L1). The successful Bidder shall be required to furnish a letter of acceptance within 7 days of issue of the letter of intent /Notification of Award by Company.

30.0 CORRUPT OR FRADULENT PRACTICES

30.01 The Company requires that the Bidders observe the highest standard of ethics during the procurement and execution of the Project. In pursuance of this policy, the Company:

(a) Defines, for the purposes of this provision, the terms set forth below as follows:

"Corrupt practice" means behavior on the part of officials in the public or private sectors by which they improperly and unlawfully enrich themselves and/or those close to them, or induce others to do so, by misusing the position in which they are placed, and it includes the offering, giving, receiving, or soliciting of anything of value to influence the action of any such official in the procurement process or in contract execution; and

"Fraudulent practice" means a misrepresentation of facts in order to influence a award process or the execution of a contract to the detriment of the Company, and includes collusive practice among Bidders (prior to or after Bid submission) designed to establish Bid prices at artificial non -competitive levels and to deprive the Company of the benefits of free and open competition.

- (b) Will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question ;
- (c) Will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, a contract.

30.02 Furthermore, Bidders shall be aware of the provision stated in the Terms and Conditions of Contract.

SECTION – III: TERMS AND CONDITIONS

COMMERCIAL TERMS & CONDITIONS:

(A) FOR SUPPLY PART:

The scope of work of the contractor shall be carrying out repairing of 11/0.433 KV Damaged/Faulty dry type transformers of various ratings as mentioned below at their works. The contractor shall supply necessary spares/ accessories and fabricate windings as specified in Section-V(Technical specifications)

Approximate Quantity of dry type distribution trf. of various rating to be repaired are as under:

- a) 1000 KVA- 04 nos.
- b) 400 KVA- 02 nos.
- Total- 06 Nos.

The Detailed technical specifications for repairing of dry type distribution transformers are enclosed herewith as Section-V.

Further for disposal of Hazardous Waste, as per the guidelines of Central Pollution Control Board for handling and storage of hazardous waste that:

1. Storage facility should have appropriate containment system.
2. The container / enclosure holding hazardous waste should be marked #Hazardous Waste in red colour in English / Hindi.
3. You must take precautions to prevent any accidental ignition or reaction of ignitable or reactive waste.
4. The container system should be leak proof and able to drain / remove liquids.
5. Used/waste oil is to be sold only through registered recycler/re-refiner.

2. RATES:

The item wise rates for above Scope of work shall be as finalized through this tender. The rates shall be firm for the entire duration of work carried out by you the order and are not subject to escalation for any reason whatsoever. The prices are also inclusive of Loading, Unloading to and fro transportation and insurance and up to the delivery at our site or store.

3. TAX & DUTIES:

Prices shall be inclusive of all taxes and duties including labour cess (Except GST Tax). However, IT as per applicable rate will be deducted from your bills as Tax Deduction at Source (TDS).

GST Tax at actual shall be paid on submission of GST Tax Registration and self declaration on your letter head stating that you have deposited/or will deposit the Tax as per the applicable GST tax laws. You shall furnish your GST tax registration number.

Any statutory variations i.e. increase/decrease in Taxes / Duties introduced by central Govt. / State Govt. shall be reimbursed/recovered to/from Contractor against documentary evidence and proof.

4. TERMS OF PAYMENT:

100% payment shall be made to you after 30 days of receipt of repaired Transformer at our stores/ Site and on submission of your Bill along with MRN, JVR, Stage Inspection, Scrap Invoice, Delivery Challan, MDCC, P.O. Copy.

1. The Scrap material shall be retained by the contractor and the credit towards the same shall be given to BRPL for above dry type Transformer.

2. The credit against scrap shall be adjusted in the invoices to be raised.

5. QUANTITY & ESTIMATES:

All the materials in required quantity shall be fitted on the repaired Dry type Transformer.

The quantity of material shall be as signed off by BSES's nominated third party inspection agency. This inspection agency shall be verifying JVR, stage inspection & Final inspection reports on BSES's part.

The actual quantity shall be arrived on the basis of quantity of material to be used decided during joint inspection and the unit rate as finalized through this tender.

You shall prepare provisional estimate for repair of each transformer after design approval of damaged transformer from our Engineering Department and submit it to

our C&M department for approval. The estimate shall be based on JVR & approved design and the unit rates finalized.

Based on the approval of provisional estimates, the vendor shall go ahead with the coil manufacturing process.

After stage inspection, the vendor shall submit the final estimates (mentioning actual wt. of HV & LV Leg coil recorded at the time of stage inspection) to C&M for final approval.

6. DELIVERY:

The repaired transformer shall be delivered within 60 days from the date of JVR. This is the maximum time which will be allowed after which the LD shall be applicable.

7. TECHNICAL SPECIFICATION, TEST PROCEDURE & QUALITY ASSURANCE:

The Detailed Technical Specification for repairing of Dry type Transformers is enclosed herewith. The Contractor shall submit the test Instruction/Procedure/Test Format before starting the work for our approval. The Contractor shall submit all the Test Reports & joint inspection report in the approved format.

Contractors shall submit detail quality plan which shall be as per BSES format with all reference and acceptance documents for our review and approval. BSES shall clearly identify Customer hold point where our inspectors shall fully involve for inspection and clearance of the transformer.

JVR shall be conducted at contractor's works within 10 days of lifting of the transformer from our site/ store.

Further, Within 7 days of JVR the contractor shall submit the design calculation for the transformer to our Engineering Dept. and obtain the approval of Design. The Performa for submitting the design calculation shall be as given by our Engineering Dept.

The Vendor shall not sell old HV/ LV wdg. Other parts etc. scrapped at the time of JVR till the designs are approved by our CES dept. & provisional estimate approved by C&M.

The scrap must be disposed by the vendor in front of BRPL & BRPL's representative.

Contractors shall not process further without inspection and clearances by our inspector on each of this identify Customer hold point stages.

It shall be noted that the quality of repairing work and your services shall be fully to our satisfaction and in case not found to be up to the mark, we reserve the right to cancel this order.

BSES representative to fully associate during complete repairing process i.e. inspection at time of lifting, defusing, inspection at the time of repair, assembly and at the time of final testing/inspection. The bidders shall raise inspection calls / intimation for customer clearance accordingly at all the stages including JVR during opening of the transformer, scrap assessment, stage inspection points and final acceptance inspection. The bidder shall not proceed without obtaining written clearance from BRPL.

All routine tests shall be carried out by the Contractor without any extra charge to the Company, unless expressly agreed otherwise. The tentative schedule for tests shall be informed to Company well in advance, to enable the buyers representative to visit Contractors factory for witnessing the tests.

8. GUARANTEE/ DEFECT LIABILITY PERIOD:

The Contractor shall guarantee that workmanship shall be of finest quality and the material used shall be suitable for the purpose for which the same is to be used. The Contractor shall also guarantee that all the material shall be in strict compliance with the Technical Specifications and as per the approved QAP and the requirements agreed upon. The Contractor shall provide guarantee for a period of 24 months from the date of commissioning or 30 months from the date of receipt of the transformer, whichever is earlier. The Contractor shall rectify, repair or replace (at our options) free of charge any such defective part/equipment. If any such equipment is to be returned to your plant for repair etc. during the guarantee period, then the expenses for transportation to and from your plant or any other place of repair service, travel and living expenses etc. shall be necessarily borne by Contractor. The repaired transformer shall be shifted in a condition ready to energize.

9. CONTRACT PERFORMANCE SECURITY BANK GUARANTEES:

9.1 CONTRACTOR shall furnish the Security Performance Bank Guarantee in the prescribed format (Appendix I) within 1 month from the date of issue of Order for due performance of the provisions of Purchase and Work Order.

9.2 The Security Performance Bank Guarantee shall be of 10% of the total initial value of order and shall be valid till defect liability period, plus three (3) months towards claim period

9.3 The Security Performance Bank Guarantee shall be issued from any nationalized bank as per company format.

9.4 The Company shall reserve the right to invoke the bank guarantee unconditionally and without recourse to the Contractor, if there is failure to perform any part of the Contract for whatsoever reason. This clause is pertaining to performance of contractual obligations and the decision of Company shall be final in this regard.

9.5 In the event, in Company sole judgment, the Contractor has fulfilled all its obligations under this Contract, Company shall release the security performance bank guarantee without interest, within seven (7) days from the last date up to which the performance bank guarantee is to be kept valid or if it is assessed by the Company that Contractor has not fulfilled its obligation then the performance bank guarantee shall be extended by the Contractor till that period as requested by the Company.

10. SECURITY FOR SCRAP VALUE OF TRANSFORMER AND INDEMNITY BOND:-

Contractor has to give Indemnity Bond for the value of Rs. 35 Lacs before lifting the trf. For repairing as per the approved format. Also Contractor has to submit Rs. 10 Lacs bank guarantee per transformer towards safe custody of the transformer at their works before lifting the same for repairing as per the approved format. Also the vendor shall submit transit insurance copy before lifting and it shall remain valid till the delivery of rep. trf.

Transformers shall be delivered to the vendor for repairing till such time as the vendor deposits security as detailed above the repair contract may be deemed to be cancelled if security is not deposited within ten days without any further reference to the vendor.

11. IMPORT LICENCE & FOREIGN EXCHANGE:

Import license /foreign exchange, if required, by the Seller for executing this order shall be arrangement by the Seller. Buyer shall not be responsible for the same.

12. S.S.I UNIT:

If the SELLER'S establishment is covered under the purview of Small Scale Industrial Undertakings (SSI Unit) and Ancillary Industrial Undertakings, he shall declare so within one week of receipt of the Purchase Order of its status failing which it will be presumed that it is a non-SSI unit.

13. ARBITRATION:

To the best of their ability, the parties hereto shall endeavor to resolve amicably between themselves all disputes arising in connection with the proposed Agreement. If the same remain unresolved, within fifteen (15) days of the matter being raised by either party, either party may refer the dispute for settlement by arbitration. The arbitration to be undertaken by a sole arbitrator to be appointed by the company. The decision of the arbitrator is final and binding upon both the parties. The arbitration proceeding shall be conducted in accordance with the provisions of the Indian Arbitration & Conciliation Act, 1996 and the venue of such arbitration shall be New Delhi only.

14. FORCE MAJEURE:

14.1 General:

An "Event of Force Majeure" shall mean any event or circumstance not within the reasonable control, of the Party affected, but only if and to the extent that:

Such event or circumstance, despite the exercise of reasonable diligence, could not have been prevented, avoided or reasonably foreseen by such Party;

Such event or circumstance materially and adversely affects the ability of the affected Party to perform its obligations under this Contract, and the affected Party has taken all reasonable precautions, due care and reasonable alternative measures in order to prevent or avoid the effect of such event on the affected party's ability to perform its obligations under this Contract and to mitigate the consequences thereof. For the avoidance of doubt, if such event or circumstance would not have materially and adversely affected the performance of the affected party had such affected party followed good industry practice, such event or circumstance shall not constitute force majeure.

Such event is not the direct or indirect result of the failure of such Party to perform any of its obligations under this Contract; and Such Party has given the other Party prompt

notice describing such events, the effect thereof and the actions being taken in order to comply with Article 14.1

14.2 Specific Events of Force Majeure:

Subject to the provisions of Article 14.1, Events of Force Majeure shall include only the following to the extent that they or their consequences satisfy the above requirements:

The following events and circumstances:

Effect of any natural element or other acts of God, including but not limited to storm, flood, earthquake, lightning, cyclone, landslides or other natural disasters, and Explosions or fires Public disorder, insurrection, ebellion, sabotage, riots or violent demonstrations of a local character; Declaration of the Site as war zone.

Any order, regulation, directive, requirement from any Governmental, legislative, executive or judicial authority.

14.3 Notice of Events of Force Majeure

If a force majeure event prevents a party from performing any obligations under the Contract in part or in full, that party shall :

Immediately notify the other party in writing of the force majeure events within 2 working days of the occurrence of the force majeure event

Be entitled to suspend performance of the obligation under the Contract which is affected by force majeure event for the duration of the force majeure event

Use all reasonable efforts to resume full performance of the obligation as soon as practicable

Keep the other party informed of all such efforts to resume full performance of the obligation on a regular basis

Provide prompt notice of the resumption of full performance or obligation to the other party.

14.4 Mitigation of events of force majeure:

The Contractor shall:

(i) Make all reasonable efforts to prevent and reduce to a minimum and mitigate the effect of any delay occasioned by an Event of Force Majeure, including applying other

ways in which to perform the Contract;

(ii) Use its best efforts to ensure resumption of normal performance after the termination of any Event of Force Majeure and shall perform its obligations to the maximum extent practicable as agreed between the Parties; and

(iii) Keep the Company informed at regular intervals of the circumstances concerning the event of Force Majeure, with best estimates as to its likely continuation and what measures or contingency planning it is taking to mitigate and or terminate the Event of Force Majeure.

14.5 Burden of proof:

In the event that the Parties are unable in good faith to agree that a Force Majeure event has occurred to an affected party, the parties shall resolve their dispute in accordance with the provisions of this Contract. The burden of proof as to whether or not a force majeure event has occurred shall be upon the party claiming that the force majeure event has occurred and that it is the affected party.

14.6 Terminations for certain events of force majeure:

If any obligation of any Party under the Contract is or is reasonably expected to be delayed or prevented by a Force Majeure event for a continuous period of more than 1 (one) month during the Term of the Contract the Contract shall be terminated at the discretion of the Company and neither Party shall be liable to the other for any consequences arising on account of such termination.

15. LIQUIDATED DAMAGES:

The delivery period indicated above shall be guaranteed. In case of a delay, you shall be liable to pay us by way of liquidated Damages @ 1 % of the repairing cost of the Transformer for each weeks delay or part thereof subject to a maximum of 10% of the total value of Order/ for undelivered portion thereof.

16. SAFETY CODE:

The Contractor shall ensure adequate safety precautions at site as required under the law of the land to facilitate safe working during the execution of work and shall be entirely responsible for the complete safety of their workmen as well as other workers at site and premises during execution of contract.

The contractor shall observe the safety requirements as laid down in the contract and in case of sub-contract (only after written approval of company), it shall be the responsibility of main contractor that all safety requirements are followed by the employees and staff of the sub-contractor.

The contractor employing two hundred employees or more, including contract workers, shall have a safety co-ordinator in order to ensure the implementation of safety requirements of the contract and a contractor with lesser number of employees, including contract workers, shall nominate one of his employees to act as safety co-ordinator who shall liaise with the safety officer on matters relating to safety and his name shall be displayed on the notice board at a prominent place at the work site.

The contractor shall be responsible for non-compliance of the safety measures, implications, injuries, fatalities and compensation arising out of such situations or incidents. In case of any accident, the contractor shall immediately submit a statement of the same to the owner and the safety officer, containing the details of the accident, any injury or casualties, extent of properly damage and remedial action taken to prevent recurrence and in addition, the contractor shall submit a monthly statement of the accidents to the owner at the end of each month.

17. CLEANLINESS & PRECAUTIONS TO BE TAKEN WHILE DOING WORK AT SITE TO PREVENT DUST POLLUTION:

All debris shall be removed and disposed of at assigned areas on daily basis. Surplus excavated earth shall be disposed of in an approved manner. In short, the contractor shall be fully responsible for keeping the work site clean at all times. In case of non-compliance, company shall get the same done at Contractor's risk and costs. While carrying out any civil work including road/ pit digging, plinth/ fence making, road restoration etc contractor shall adhere to below mentioned guidelines.

1. No construction material/ debris shall be stored on metalled road.
2. Wind breakers of appropriate height on all sides of ear marked area using CGI sheets shall be raised to ensure that no construction material dust fly outside ear marked area.
3. The construction material i.e. coarse sand, stone aggregates, excavated earth, cement and any other material to and from the site shall be transported under wet and covered condition to ensure their non-slippage en-route to avoid air contamination.

4. The contractor shall provide mask and helmet to every worker working on the construction site and involved in loading/unloading and carriage of construction material and construction debris to prevent inhalation of dust particles.
5. Over loading of vehicles shall be strictly prohibited
6. The construction material at site shall be stored under wet and covered condition.
7. The dumping sites for temporarily storing the excavated earth shall be properly levelled, watered and rehabilitated by plantation to avoid flying of dust.
8. The worker at the site shall be sensitized to adopt / observe the dust controlled measures in true spirit.
9. If any C&D waste is generated at site the same will be transported to the C&D waste site only and the record for the same will be maintained by the agency.
10. Wet jet in grinding and stone cutting is being permitted at site.
11. The necessary record for dust control is being maintained by the department on day to day basis and being monitored regularly.

The Execution vendors shall be responsible for all the preventive and protective environmental steps as per guidelines. Any violations from the above guidelines have been viewed very seriously by the authorities. Concerned agency is liable for the penalties / other action by the authorities, The Agency shall indemnify BRPL from all liabilities on this account.

18. VENDOR CODE OF CONDUCT:

Contractor confirms to have gone through the Policy of BRPL on legal and ethical code required to be followed by contractor encapsulated in the "Vendor Code of Conduct" displayed on the official website of BRPL (www.bsesdelhi.com) also, which shall be treated as a part of the contract.

Contractor undertakes that he shall adhere to the Vendor code of Conduct and also agrees that any violation of the Vendor Code of Conduct shall be treated as breach of the contract.

In event of any such breach, irrespective of whether it causes any loss/damage, company (BRPL) shall have the right to recover loss/damage from Contractor.

The Contractor hereby indemnifies and agrees to keep indemnified the company (BRPL)



BSES Rajdhani Power Limited

against any claim/litigation arising out of any violation of Vendor Code of Conduct by the Contractor or its officers, agents & representatives etc.

19. ECONOMIC LIMITS:

The net repairing cost of individual transformer shall be within the Economic Limit decided by BSES. It shall be at BSES's discretion to accept/ reject the transformer for repairing based on the provisional estimate submitted the vendor. Economic limit shall be decided after rate finalization.

20. CREDITS:

The Scrap material shall be retained by the contractor and the credit towards the same shall be given to BRPL for Dry type Transformer. The Rate of Scrap material shall be as decided through tender. The rates shall be inclusive of all applicable taxes & duties. The credit against scrap shall be adjusted in the invoices to be raised.

21. ACCEPTANCE:

Acceptance of this order implies and includes acceptance of all terms and conditions enumerated in this work order in the technical specification and drawings made available to you, detailed scope of work, detailed technical specification & detailed equipment, drawing. Complete scope of work and the Contractors and Company contractual obligation are strictly limited to the terms set out in the order. No amendments to the concluded order shall be binding unless agreed to in writing for such amendment by both the parties.

(B) SERVICE PART:

1. Definition:

The following terms & expressions as used in this order shall have the meaning defined and interpreted here under:

1.1 Company: The terms Company shall mean BSES Rajdhani Power Limited having its office at BSES Bhawan, Nehru Place, New Delhi 110 019 and shall include its authorized representatives, agents, successors and assigns.

1.2 Contractor: contractor shall mean the successful Tendered / vendor to whom the contract has been awarded

1.3 Rates: The terms Rates shall mean the rate as mentioned for the work under this work order and payable to the Contractor for the full and proper performance of the jobs covered under this work order.

1.4 Order Specification: The terms Order Specification shall mean the Technical specification of the work as agreed by you and description of Work as detailed all such particulars mentioned directly/referred to or implied as such in the order.

1.5 Engineer In charge: The terms Engineer In charge shall mean the Company's nominated representative for the purpose of all the works being executed by the Contractor in relation to this work Order.

1.6 Inspector: The terms Inspector shall mean the Company's nominated representative for the purpose of carrying out the Inspection for the works being executed by the Contractor in relation to this work Order.

2. LANGUAGE AND MEASUREMENT:

The order issued to the contractor by the company and all correspondence and documents relating to the order placed on the Contractor shall be written in English language.

Metric System shall be followed for all dimension, units etc.

3. SCOPE OF WORK:

The scope of work to be carried out by you shall be work required for repairing, painting and freight charges of the damaged of dry type trfs. Of following rating:

a) 1000 KVA- 04 nos.

b) 400 KVA- 02 nos.

Total - 06 Nos.

All the manpower, tools and tackles, are included in your scope of work.

Contractor shall be responsible for to and fro transportation, transit insurance cover, Safe loading, unloading and dragging (if required) within cost of transportation rates.

Necessary road permit required for entry and exit of material in respective states is entirely the responsibility of the contractor.

In case of any failure of transformer within guarantee period, the contractor shall carry out the repair free of cost.

The repaired Dry type Transformers supplied by you shall be ready to energize.

4. RATES:

The item wise rates for above Scope of work are as mentioned in this contract. The rates shall be firm for the entire duration of work carried out by the contractor under the order and are not subject to escalation for any reason whatsoever.

All the rates applicable for repairing work shall be as per agreed rates schedule. The quantity or repairing work shall be as signed off by our Inspectors.

5. TAX & DUTIES:

Prices shall be inclusive of all taxes and duties including labour cess (Except GST Tax). However, IT as per applicable rate will be deducted from your bills as Tax Deduction at Source (TDS).

GST Tax at actual shall be paid on submission of GST Tax Registration and self declaration on your letter head stating that you have deposited/or will deposit the Tax as per the applicable GST tax laws. You shall furnish your GST tax registration number.

Any statutory variations i.e. increase/decrease in Taxes / Duties introduced by central Govt. / State Govt. shall be reimbursed/recovered to/from Contractor against documentary evidence and proof.

6. TERMS OF PAYMENT:

100% payment shall be made to you within 30 days of receipt of repaired Transformer at our stores/ Site and on submission of your Bill along with following documents:

- i) Copy of Work Order.
- ii) J.V.R. Copy.
- iii) MDCC Copy.
- iv) GRN/MRN.
- v) Documents showing compliance of statutory requirements as applicable.

7. RISK AND COST:

The Company at his option will be entitled to terminate the contract and to carry out work from elsewhere at the risk and cost of the Contractor either the whole or any part which the Contractor has failed to deliver or dispatch within the time stipulated as F.O.R site or if the same, where not available, the best and the nearest available substitute there from the Contractor shall be liable for any loss which the Company may sustain by reason of such risk purchases in addition to L.D at the rate mentioned above.

8 INDEMNITY BOND:

The Contractor shall protect, indemnify and save harmless the Company, its successors, assigns, customers and users of its products, against all liability, including costs, expenses, claims suits or proceedings at law, growing out of or, in connection, with any patent infringement (including process patents, if any), or violation of any license with respect thereto, by reason of the manufacture and/or sale by, or on behalf of the supplier of the plant or any part thereof in India for the purpose for which it is furnished, or the sale by the Company its successors and assigns of products made, manufactured, fabricated, processed or produced with the said plant or any part thereof in India for the purpose for which it is furnished and

shall defend or settle at the supplier's own expense, any such claims, suits or proceedings.

9. ARBITRATION:

To the best of their ability, the parties hereto shall endeavor to resolve amicably between themselves all disputes arising in connection with the proposed Agreement. If the same remain unresolved, within fifteen (15) days of the matter being raised by either party, either party may refer the dispute for settlement by arbitration. The arbitration to be undertaken by a sole arbitrator to be appointed by the company. The decision of the arbitrator is final and binding upon both the parties. The arbitration proceeding shall be conducted in accordance with the provisions of the Indian Arbitration & Conciliation Act, 1996 and the venue of such arbitration shall be New Delhi only.

10. FORCE MAJEURE:

10.1 General:

An “Event of Force Majeure” shall mean any event or circumstance not within the reasonable control, of the Party affected, but only if and to the extent that:

Such event or circumstance, despite the exercise of reasonable diligence, could not have been prevented, avoided or reasonably foreseen by such Party;

Such event or circumstance materially and adversely affects the ability of the affected Party to perform its obligations under this Contract, and the affected Party has taken all reasonable precautions, due care and reasonable alternative measures in order to prevent or avoid the effect of such event on the affected party’s ability to perform its obligations under this Contract and to mitigate the consequences thereof. For the avoidance of doubt, if such event or circumstance would not have materially and adversely affected the performance of the affected party had such affected party followed good industry practice, such event or circumstance shall not constitute force majeure.

Such event is not the direct or indirect result of the failure of such Party to perform any of its obligations under this Contract; and Such Party has given the other Party prompt notice describing such events, the effect thereof and the actions being taken in order to comply with Article 14.1

10.2 Specific Events of Force Majeure:

Subject to the provisions of Article 14.1, Events of Force Majeure shall include only the following to the extent that they or their consequences satisfy the above requirements:

The following events and circumstances:

Effect of any natural element or other acts of God, including but not limited to storm, flood, earthquake, lightning, cyclone, landslides or other natural disasters, and

Explosions or fires Public disorder, insurrection, rebellion, sabotage, riots or violent demonstrations of a local character; Declaration of the Site as war zone.

Any order, regulation, directive, requirement from any Governmental, legislative, executive or judicial authority.

10.3 Notice of Events of Force Majeure

If a force majeure event prevents a party from performing any obligations under the Contract in part or in full, that party shall :

Immediately notify the other party in writing of the force majeure events within 2 working days of the occurrence of the force majeure event

Be entitled to suspend performance of the obligation under the Contract which is affected by force majeure event for the duration of the force majeure event

Use all reasonable efforts to resume full performance of the obligation as soon as practicable

Keep the other party informed of all such efforts to resume full performance of the obligation on a regular basis

Provide prompt notice of the resumption of full performance or obligation to the other party.

10.4 Mitigation of events of force majeure:

The Contractor shall:

(i) Make all reasonable efforts to prevent and reduce to a minimum and mitigate the effect of any delay occasioned by an Event of Force Majeure, including applying other ways in which to perform the Contract;

(ii) Use its best efforts to ensure resumption of normal performance after the termination of any Event of Force Majeure and shall perform its obligations to the maximum extent practicable as agreed between the Parties; and

(iii) Keep the Company informed at regular intervals of the circumstances concerning the event of Force Majeure, with best estimates as to its likely continuation and what measures or contingency planning it is taking to mitigate and or terminate the Event of Force Majeure.

10.5 Burden of proof:

In the event that the Parties are unable in good faith to agree that a Force Majeure event has occurred to an affected party, the parties shall resolve their dispute in accordance with the provisions of this Contract. The burden of proof as to whether or not a force majeure event has occurred shall be upon the party claiming that the force majeure event has occurred and that it is the affected party.

10.6 Terminations for certain events of force majeure:

If any obligation of any Party under the Contract is or is reasonably expected to be delayed or prevented by a Force Majeure event for a continuous period of more than 1 (one) month during the Term of the Contract the Contract shall be terminated at the discretion of the Company and neither Party shall be liable to the other for any consequences arising on account of such termination.

11. SUBLETTING OF WORK ORDER:

CONTRACTOR shall not assign or transfer the whole or any part of this Work Order or any other benefits accruing there from nor shall it subcontract / sublet the whole or any part of the Works.

12. SAFETY CODE:

The Contractor shall ensure adequate safety precautions at site as required under the law of the land to facilitate safe working during the execution of work and shall be entirely responsible for the complete safety of their workmen as well as other workers at site and premises during execution of contract.

The contractor shall observe the safety requirements as laid down in the contract and in case of sub-contract (only after written approval of company), it shall be the responsibility of main contractor that all safety requirements are followed by the employees and staff of the sub-contractor.

The contractor employing two hundred employees or more, including contract workers, shall have a safety co-ordinator in order to ensure the implementation of safety requirements of the contract and a contractor with lesser number of employees, including contract workers, shall nominate one of his employees to act as safety co-ordinator who shall liaise with the safety officer on matters relating to safety and his name shall be displayed on the notice board at a prominent place at the work site.

The contractor shall be responsible for non-compliance of the safety measures, implications, injuries, fatalities and compensation arising out of such situations or incidents.

In case of any accident, the contractor shall immediately submit a statement of the same to the owner and the safety officer, containing the details of the accident, any injury or casualties, extent of property damage and remedial action taken to prevent recurrence and in addition, the contractor shall submit a monthly statement of the accidents to the owner at the end of each month.

13. SECRECY CLAUSE:

The technical information, drawing and other related documents forming part of order and the information obtained during the course of investigation under this order shall be the Company's exclusive property and shall not be used for any other purpose except for the execution of the order. The technical information drawing, records and other document shall not be copied, transferred, or divulged and/or disclosed to third party in full/part, not misused in any form whatsoever except to the extent for the execution of this order.

This technical information, drawing and other related documents shall be returned to the Company with all approved copies and duplicates including drawing/plans as are prepared by the Contactor during the executions of this order, if any, immediately after they have been used for agreed purpose.

In the event of any breach of this provision, the contractor shall indemnify the Company against any loss, cost or damage or claim by any party in respect of such breach.

14. ENVIRONMENTAL, HEALTH & SAFETY PLAN

Contractor will make ensure that the Environment, Health & Safety (EHS) requirements are clearly understood and faithfully implemented at all levels at site as per instruction of Company.

Contractors must comply with these requirements:

- a) Comply with all of the elements of the EHS Plan and any regulations applicable to the work

- b) Comply with the procedures provided in the interests of Environment, Health and Safety
- c) Ensure that all of their employees designated to work are properly trained and competent
- d) Ensure that all plant and equipment they bring on to site has been inspected and serviced in accordance with legal requirement and manufacturer's or suppliers' instructions
- e) Make arrangements to ensure that all employees designated to work on or visit the site present them for site induction prior to commencement of work
- f) Provide details of any hazardous substances to be brought onsite
- g) Ensure that a responsible person accompanies any of their visitors to site

All contractors' staff is accountable for the following:

Use the correct tools and equipment for the job and use safety equipment and protective clothing supplied, e.g. helmets, goggles, ear protection, etc. as instructed Keep tools in good condition

Report to the Supervisor any unsafe or unhealthy condition or any defects in plant or equipment

Develop a concern for safety for them and for others Prohibit horseplay not to operate any item of plant unless they have been specifically trained and are authorized to do so.

15. VENDOR CODE OF CONDUCT:

Contractor confirms to have gone through the Policy of BRPL on legal and ethical code required to be followed by contractor encapsulated in the "Vendor Code of Conduct" displayed on the official website of BRPL (www.bsesdelhi.com) also, which shall be treated as a part of the contract.

Contractor undertakes that he shall adhere to the Vendor code of Conduct and also agrees that any violation of the Vendor Code of Conduct shall be treated as breach of the contract.

In event of any such breach, irrespective of whether it causes any loss/damage, company (BRPL) shall have the right to recover loss/damage from Contractor.

The Contractor hereby indemnifies and agrees to keep indemnified the company (BRPL) against any claim/litigation arising out of any violation of Vendor Code of Conduct by the Contractor or its officers, agents & representatives etc.

16. COMPLETION PERIOD:

The repaired transformer shall be delivered within 60 days from the date of JVR.

17. ACCEPTANCE:

Acceptance of this order implies and includes acceptance of all terms and conditions enumerated in this work order in the technical specification and drawings made available to you, detailed scope of work, detailed technical specification & detailed equipment, drawing. Complete scope of work and the Contractors and Company's contractual obligation are strictly limited to the terms set out in the order. No amendments to the concluded order shall be binding unless agreed to in writing for such amendment by both the parties.

However, during the course of the execution of the order if at any time the Company's representative observe and form an opinion that the work under the order is not being performed in accordance with the terms of this work order, the Company reserves its right to cancel this work order forthwith without assigning any reason and the Company will recover all damages including losses occurred due to loss of time from the contractor.

SECTION-IV: BILL OF QUANTITY/ PRICE FORMAT

1. PRICE FORMAT FOR 400 KVA DRY TYPE TRANSFORMERS					
S.NO.	ITEM DESCRIPTION	Unit	Unit Rate in Rs.	GST	Total Rate in Rs.
(A)	SUPPLY PART:				
1	HV Copper leg coils complete with insulation	Per kg.			
2	LV Copper leg coils complete with insulation	Per kg.			
3	HV Support Insulator	Each			
4	LV Support Insulator	Each			
5	HV Busbar(copper)	Each			
6	LV Busbar(copper)	Each			
7	HV Cable Support	Each			
8	LV Cable Support	Each			
9	Off Circuit Tap links with enclosure	Each			
10	Coil supporter (Top & Bottom)	Each			
11	HV Coil separator	Each			
12	LV neutral bush metal parts	Each			
13	HV Earthing bush metal parts	Each			
14	Gaskets set for Earthing bushings	Each			
15	Door Limit Switch (on each door)	Each			
16	C.T.	Each			
17	Winding Temperature Indicator	Each			
18	Sundry items viz; screw, washer, Insulation material, minor repairs of enclosure,name plate,other parts required if any	Per Trf.			

19	Replacement of stainless steel wire mesh and rain guard	Per kg.			
20	HT Lugs	Each			
21	LT Lugs	Each			
22	Surge Arrester with complete connection	Each			
23	RTD	Each			
(B)	LABOUR PART:				
1	Labour charges for repairs and testing of transformer at bidder/repairer's work	Per Trf.			
2	Painting inside & outside of enclosure and boxes with suitable primer & 2 coats of suitable paints of grey colour & marking etc.	Per Trf.			
3	Loading at site/ stores, to and fro transportation to bidder/repairer's factory and back to Grid/Site, unloading at Grid/Site including insurance cover	Per Trf.			
(C)	CREDITS:	Unit	Unit Rate in Rs.	Taxes(GST /TCS)	Total Rate in Rs.
1	Scrap of old casted leg coils	Per kg.			
2	Damaged louvers/wiremesh	Per kg.			
3	Damaged HV Busbar	Per kg.			
4	Damaged LV Busbar	Per kg.			
5	Damaged CRCA	Per kg.			

2. PRICE FORMAT FOR 1000 KVA DRY TYPE TRANSFORMERS					
S.NO.	ITEM DESCRIPTION	Unit	Unit Rate in Rs.	GST	Total Rate in Rs.
(A)	SUPPLY PART:				
1	HV Copper leg coils complete with insulation	Per kg.			
2	LV Copper leg coils complete with insulation	Per kg.			
3	HV Support Insulator	Each			
4	LV Support Insulator	Each			
5	HV Busbar(copper)	Each			
6	LV Busbar(copper)	Each			
7	HV Cable Support	Each			
8	LV Cable Support	Each			
9	Off Circuit Tap links with enclosure	Each			
10	Coil supporter (Top & Bottom)	Each			
11	HV Coil separator	Each			
12	LV neutral bush metal parts	Each			
13	HV Earthing bush metal parts	Each			
14	Gaskets set for Earthing bushings	Each			
15	Door Limit Switch (on each door)	Each			
16	C.T.	Each			
17	Winding Temperature Indicator	Each			
18	Sundry items viz; screw, washer, Insulation material, minor repairs of enclosure,name plate,other parts required if any	Per Trf.			
19	Replacement of stainless steel wire mesh and rain guard	Per kg.			
20	HT Lugs	Each			
21	LT Lugs	Each			
22	Surge Arrester with complete connection	Each			

23	RTD	Each			
(B)	LABOUR PART:				
1	Labour charges for repairs and testing of transformer at bidder/repairer's work	Per Trf.			
2	Painting inside & outside of enclosure and boxes with suitable primer & 2 coats of suitable paints of grey colour & marking etc.	Per Trf.			
3	Loading at site/ stores, to and fro transportation to bidder/repairer's factory and back to Grid/Site, unloading at Grid/Site including insurance cover	Per Trf.			
(C)	CREDITS:	Unit	Unit Rate in Rs.	Taxes(GST/TCS)	Total Rate in Rs.
1	Scrap of old leg coils only	Per kg.			
2	Damaged louvers/wiremesh	Per kg.			
3	Damaged HV Busbar	Per kg.			
4	Damaged LV Busbar	Per kg.			
5	Damaged CRCA	Per kg.			

SECTION-V

TECHNICAL SPECIFICATIONS

(Enclosed herewith as

Specification No: GN101-03-SP-229-00, Page 1 to 25)

**TECHNICAL SPECIFICATIONS
FOR
REPAIR OF DAMAGED/FAILED
DRY TYPE DISTRIBUTION TRANSFORMERS**

Specification No. : GN101-03-SP-229-00

Prepared By	Reviewed By	Approved By	Revision	Date
Vani Sood	Amit Tomar	K Sheshadri	R0	22.11.2021

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Specification for Repair of Damaged/Failed Dry Type Distribution Transformers**1. CODES & STANDARDS**

The Dry Type distribution transformers shall be designed, manufactured & tested in accordance with the following IEC & Indian standards

IEC Standards

IEC 60076	Power Transformer Part 1 to Part 10
IEC 60616	Terminal and Tapping Markings for Power Transformers
IEC 60726	Dry-Type Power Transformers.
IEC 529	Degrees of Protection Provided by Enclosures (IP Code).

Indian Standards

IS 2026	Power Transformers (Part 1 to Part 4)
IS 11171	Dry Type Power Transformer
IS 1271	Thermal Evaluation & Classification Of Electrical Insulation
IS 2099	Bushing for Alternating voltage above 1000V
IS 10028	Code Of Practice For Installation And Maintenance of Transformers
IS 5	Ready Mixed Paint, Air Drying, Red-Oxide Zinc Chrome, Priming
IS 2932	Enamel, Synthetic, Exterior : A) Undercoating B) Finishing
IS 3347	Dimensions For Porcelain Transformer Bushings (For Use In Very Heavily Polluted Atmosphere)
Publication no. 275	CBIP Manual – Manual on transformers
IS 6600	Guide For Loading Of Oil-Immersed Transformers
ECBC guideline	Energy conservation building guidelines

2. SCOPE

This specification covers assessment, estimation, complete repairs, testing and safe transportation to and from of 11/0.433 KV, 250 KVA to 1500 KVA damaged/failed distribution transformers of different makes, types and capacities lying at various stores/sites of BRPL Rajdhani Power Ltd. on rate contract basis.

3. CLIMATIC CONDITIONS

Specification for Repair of Damaged/Failed Dry Type Distribution Transformers

The equipment covered under this specification is for indoor / outdoor installation in the climatic conditions that prevail in Delhi.

3.1 TEMPERATURE

- a) Reference ambient temperature shall be 50 degree Celsius in accordance with IS 9676.
- b) Relative Humidity
Maximum 100%
Minimum 10%
- c) Average no, of Rainy days per annum 50
- d) Average annual rainfall 750 mm
- e) Average no, of Thunder storm/annum 40
- f) Altitude not exceeding 300 Mts.
- g) Rainy months June to October
- h) Wind pressures: 195Kg. /m² up to an elevation of 30 Mt. As per IS: 875/ 1975.

- 3.2 The atmosphere is generally laden with mild acid and dust in suspension during the dry months and is subjected to fog in cold months. Heavy lightening occurs in the area during rainy month (June to October).

4. REPAIR WORKS**Type of transformer -- CRT/VPI type**

The repair works shall involve the following major stage

4.1 BRPL Stores

- i) Lifting and shifting of the transformer from stores to the workshop/repair site. Handing over document shall be signed off by BRPL Stores, Vendor and BRPL representative / inspector before lifting and transportation of transformer.

4.2 Vendor's scope of work

- i) Opening the transformer enclosure and dismantling of all the connections.
- ii) Removal of complete core-coil assembly without any damage.
- iii) Core lamination to be visually inspected for the healthiness of the core during the Joint Verification. If the same is found to be damaged, the transformer shall be returned to BRPL stores after getting clearance from the C&M, BRPL and the transformer shall be declared as un-repairable. All components, coir-coil assembly and

Specification for Repair of Damaged/Failed Dry Type Distribution Transformers

- other accessories shall be assembled back and shall be verified and sealed by BRPL inspector.
- iv) Cleaning, washing of dust, dirt from all ports including core, enclosure and ventilation louvers.. Removal of sludge from the core and bottom of enclosure
 - v) Assembly of core-coil after rewinding. Rewinding includes fabrication of all the three phases of both HV and LV winding.
 - vi) Replacement of all metal parts, bushings (HV & LV), support insulators (HV & LV). Surge Arrester and off circuit tapping links. (Replacement shall be done strictly as per approved makes of BRPL). Tap link current rating shall be as follows.

250/400kVA	60 Amps
630 kVA	100 Amps
1000/1500 kVA	125 Amps

Replacement of all minor components, hardwares, LT and HT Lugs, control cables etc.
 - vii) Repairs of Ventilation louvers with stainless steel wire mesh and rain water guard by using seamless welding. If any ventilation part is found defective during testing, new parts are to be installed. Dry out of core-coil assembly and tanking (in the enclosure) of the same.
 - viii) Marking and installation of new Name Plate (without replacing old name plate). Caution plate, danger plate, phase identification plate, tap link position plate shall also be replaced.
 - ix) Routine/Acceptance tests as per BRPL approved technical specification/ IS-11171.
 - x) Painting(powder coating) ----- internal and external enclosure surfaces.
 - xi) HV and LV side cable terminating bus bar shall be provided. HV and LV cable support shall also be provided.
 - xii) Installation of cable gland and gland plates.
 - xiii) Installation of WTI and door limiting switch along with control; cables.
 - xiv) LV additional neutral earthing bushing shall be provided separately and outside the enclosure.
 - i) The bidder/repairer will follow the original design of the distribution Transformer winding during repair. The same will be ascertained during joint verification report (JVR). Transformer design of only those cases where constraints are encountered to meet technical specification and original design needs to be submitted to Central Engineering Services (CES-BRPL) for vetting.

Specification for Repair of Damaged/Failed Dry Type Distribution Transformers

- ii) Assessment of No-load, Load losses and % impedance details need to be done by bidder for all distribution transformers. The complete data shall be submitted to CES BRPL team for record and review.
- iii) Works of all the technically qualified bidder/repairers has to be vetted for manufacturing capability, in process quality, design capability and testing procedures.

5 MATERIALS & APPROVED MAKES**5.1 WTI-Material shall be as follows-**

No. of RTD inputs	Five (Three for windings, one for enclosure & one shall be spare) RTD for enclosure temperature monitoring shall be fixed at enclosure Top from inside to give max. Enclosure temp reading & shall be wired up to temp. Scanner to indicate the reading.
Location of winding RTD	At location of winding where maximum temperature is expected.
No of potential free trip contacts	Two
No of potential free Alarm contacts	Two
Auxiliary Supply	240 V AC, 1 phase, 50 Hz. Tapped from LV side busbar through a MCB located inside box.
Winding Temperature Scanner terminal Box	Required
Size	As per manufacturers standard
Fixing of instrument within box	On side wall of enclosure
Fixing of terminals within the box	On C channel available with the terminals
Location	Within enclosure frame such that Marshalling Box & WTI on same side & free access to all LV side doors.
Terminal Strip	Nylon 66 material, minimum 4 sq mm, screw type for control wiring and potential circuit.
Cables & Wires	PVC insulated, extruded PVC inner sheathed, armoured, extruded PVC outer sheathed 1100 V grade control cable as per latest edition of IS 1554 part 1 minimum 2.5 sqmm for signals and 4 sqmm for CT with multistrand copper conductor & PVC insulated multistrand flexible copper wires

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	of minimum 2.5 sqmmsize, 1100 V grade as per latest edition of relevant IS
Cable Glands	Nickel plated brass double compression weatherproof cable gland
Lugs on wires	Tinned copper pre-insulated Pin, Ring, Fork type as applicable
Auxiliary supply in box	Tapped from main LV busbars, taken via MCB for isolation and protection of scanner, MCB to be fixed on DIN rail with clamps on two sides.
Essential provision	Wiring diagram to be fixed on the back of door along with brief details of scanner, HV side, LV side door limit switches to be wired up-to Terminal Block, Service socket to be provided with switch, fuse and link.

- 5.2 Door limit switch on both HV and LV side doors to be wired up to WTI box terminal for tripping the transformer in case door is opened with the transformer energized,
- 5.3 HT Termination busbar-Material shall be Aluminum with size of 50X10 mm. Support of HT cable with Enclosure shall also be provided. Material shall be MS flat of minimum size 50X10 mm.
- 5.4 LT termination busbar- Material shall be Aluminum with the following sizes:

250 KVA	
Phase	100 x 10 mm
Neutral	100 x 10 mm
400 KVA	
Phase	2 Nos 100 x 10 mm
Neutral	2 Nos 100 x 10 mm
400 KVA	
Phase	2 Nos 100 x 10 mm
Neutral	2 Nos 100 x 10 mm
630 KVA	
Phase	2 Nos 100 x 10 mm
Neutral	2 Nos 100 x 10 mm
1000 KVA	

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Phase	2 Nos 100 x 10 mm
Neutral	2 Nos 100 x 10 mm
1500 KVA	
Phase	2 Nos 130 x 10 mm
Neutral	2 Nos 130 x 10 mm

- 5.5 LT and HT support insulators- Material shall be Epoxy resin cast with minimum creepage distance of 31 mm/KV.
- 5.6 Lighting arrester- It shall be connected on Transformer Primary side on all three phases. Material shall be as follows:

Type	Gapless Metal Oxide
Housing	Polymeric only, at bottom of HV winding
Creepage factor	31 mm /KV
Reference std	IS 3070 part 3 and IEC 99-4
Continuous operating voltage , kV rms	6.35
Maximum Continuous operating voltage, kVrms	7.65
Nominal Discharge Current, kA peak	5
Energy Absorption Capability, kJ/kV	Greater than 2.5

- 5.7 HT and LT cable entry at bottom of enclosure through detachable gland plate. HT gland plate shall be Hot dipped Galvanized Steel 3 mm thick. LT gland plate shall be Aluminium of 5 mm thick and gland plate should be single piece with "Knock Out" holes of dia. 40 mm.

Nickel Plated brass double compression glands for HV and LV, LVN cables.

No. of cables on LV side	
250 KVA	2 runs per phase + 1 run in Neutral
400 KVA	2 runs per phase + 2 runs in Neutral
630 KVA	3 runs per phase + 2 runs in Neutral
1000 KVA	4 runs per phase + 2 runs in Neutral
1500 KVA	6 runs per phase + 3 runs in Neutral
LV Gland plate material & type	Aluminium of 5 mm thick and gland plate should be single piece with "Knock Out" holes of dia. 40 mm.

Specification for Repair of Damaged/Failed Dry Type Distribution Transformers

- 5.8 The inspecting officers of the purchaser shall have the right for checking the records pertaining to receipt and issue of all major components / parts raw materials. The bidder/repairer can be required to produce requisite test certificate for each and every consignment of transformer oil and other major items / raw materials.
- 5.9 The purchaser reserves the right to draw required number of samples of major items of raw material. These samples shall however be drawn and sealed in presence of the Bidder/repairer. The purchaser further reserves the right to get these samples tested from the reputed independent test house / NABL approved laboratory such as CPRI of his choice at the cost of the bidder/repairer.
- 5.10 In addition to inspection, random checking during process of repair may be done by the representative of the purchaser to examine quality & quantity of raw materials being used and the workmanship. In order to avoid in-consistency in electrical characteristics, all the metal parts and bushings (HV & LV) shall be replaced. The bushings shall have the same standard, same class and identical electrical characteristics as per the existing design and must confirm to IS standards.
- 5.11 Bidder/repairer also need to submit list of employee deputed in production, testing, quality and design along with their qualification and work experience

6 REPLACEMENT OF MINOR PARTS

In addition to the replacement of major items, all minor items such as control cables, surge arresters, gaskets, etc and fittings shall be replaced in order to make the transformer completely ready for taking into service. The repairing shall ensure that the transformer can be directly sent to the site for installation, without incurring any additional cost.

7 TRANSFORMER WINDINGS

- 7.1 All old HV/LV windings shall be replaced by new windings. All old windings shall be damaged by hammering or cutting the winding into pieces and shall be declared as scrap. The winding design of HV/LV shall be identical to that of the existing design. The max allowable current density shall be 3.0A/sq. mm. for copper wound transformer & 1.5A/sq. mm. for Aluminum wound transformers. If the original design is not ascertained design change approval shall be taken from BRPL. HV winding shall be layer type & LV shall be with foil type.

Specification for Repair of Damaged/Failed Dry Type Distribution Transformers

- 7.2 Conductor insulation shall be Class H whereas overall insulation class must be of class F type, free from compounds liable to ooze out, shrink or collapse. Uniform insulation shall be applied to the windings and overall winding shall be cast resin/ paper insulation.
- 7.3 The number of coils per limb, no. of turns and dimensions of complete leg coils shall be so designed such that all technical parameters are achieved such as Resistance of HV & LV winding, Turns Ratio, percentage impedance, guaranteed load losses (at 130 deg C) and temperature rise criteria are achieved. The max allowable current density shall be 3.0A/sq. mm. for copper wound transformer & 1.5A/sq. mm. for Aluminum wound transformers.
- Stacks of winding to receive adequate shrinkage treatment. Connections braced to withstand shock during transport, switching, short circuit, or other transients. Conductor width on edge shall be exceeding six times its thickness The termination bus-bar coming out from winding shall be tinned Copper. Windings shall be Transposed at sufficient intervals
- 7.4 All threaded connections shall be provided with suitable locking devices. All leads from the winding to the terminals and bushings shall be rigidly supported to prevent damage due to vibration. Vibration isolation pads shall be installed between core and coil assembly and enclosure base assembly to prevent the transmission of structure borne vibrations.
- 7.8 Off Circuit tap links shall be provided on HV winding , tapping shall be + / - 5 % in steps of 2.5% , change of taps by using link.
- 7.9 Phase marking required near termination on both HV and LV side. Phase colour coding required on insulating sleeves on both HV and LV side. Phase sequence 1U, 1V, 1W from left to right looking inside from the HV side door. Phase sequence 2n, 2u, 2v, 2w from right to left looking inside from LV side door. Adequate HV termination clearance. Provision of check nut in all HV and LV winding lead connection.
- 7.10 The maximum temperature rise of winding shall be either as per name plate or 90 deg C respectively in case of absence of the details on the name plate.
- 7.11 The short circuit capacity withstand for HV & LV winding shall be 350MVA & 53MVA respectively short circuit withstand duration shall be for 3secs.

Specification for Repair of Damaged/Failed Dry Type Distribution Transformers

7.12 The bidder/repairer shall submit the complete winding data after completion of JVR. The winding data shall be submitted to BRPLSES for record and thereafter clearance will be given for further fabrication and assembly by our C&M department.

8 WEIGHT OF NEWLY FABRICATED HV & LV COILS / IMPROVEMENT IN DESIGN

8.1 The weight of new HV/LV coils should almost be the same as that of old HV/LV coils wherein current density in old coils shall not exceed 1.5 Amp/ sq. mm. for Al winding and up to 3.0 Amp. /sq. mm. in Copper wound coils, meeting the other technical parameters.

8.2 In case the current density in HV & LV coil of the damaged transformers is found more than 3.0 Amp/ sq. mm.(copper) or more than 1.5 Amp/ sq. mm. bidder/repairer is allowed to use excess copper to improve the current density to the required level by carrying out the necessary modifications in the design of old damaged transformers, meeting the other technical parameters and for this he will have to submit estimates along with modified design. The Bidder/repairer shall start the repair work of such transformers after seeking the approval of the same. If due to technical constraints of the existing transformers, the required current density of 3.0 Amps./sq. mm. in copper wound transformer or 1.5 Amp/ sq. mm. in aluminium wound transformer is not achievable, the specific approval for the minimum possible current density achievable along with the estimated amount shall have to be obtained before starting the work. However, the total repair cost shall be within the limit for cost of repair of transformer.

The payment of the above shall be made as per actual weight / quantity of the material used for repairing of the transformer within economical limits.

8.3 For at-least one transformer of each lot (20 no's) of distribution transformer of same / different rating, wherever re-designing has been done by the vendor, temperature rise test shall be conducted.

9 CORE LAMINATIONS

9.1 The grade / thickness of the core laminations, total weight of the core and laminations dimensional details shall be recorded by the BRPL inspector and shall be mentioned in the JVR report as per the attached Annexure – IV.

9.2 Each core lamination plate shall be cleaned for dust and dirt.

Specification for Repair of Damaged/Failed Dry Type Distribution Transformers

- 9.3 After cleaning dust and dirt from the laminations the core shall be rigidly clamped and bolted to ensure adequate mechanical strength and to prevent vibration during operation. The bolts used in the assembly of the core shall be suitably insulated and the clamping structure shall be so constructed that the eddy currents will be minimum.
- 9.4 The Bidder/repairer shall assure core healthiness before taking up the coil fabrication and assembly. If required separate testing for no load magnetizing current at 100% & 112.5% voltage shall be done at the works in presence of the third party inspector / BRPL representative. Core testing shall be done only after filling the transformer oil inside the tank. Core lamination testing may be done to assure the core healthiness. All the required test instruments shall be available with the bidder/repairer.

10 ESSENTIAL REPLACEMENTS

- 10.1 All hardware (both external & internal) shall be replaced. External hardware shall be hot dip galvanized and internal hardware shall be cadmium plated. Hardware for frame parts and core assembly shall be as per the design practice being followed in industry.
- 10.2 Minors repairs may be done on the enclosure. Neoprene rubber gasket to be provided along all the doors.
- 10.3 Vendor to maintain design, accessories and spaces for the enclosure as per the original.
- 10.4 Painting of transformer:
- a) Surface Preparation: By 7 tank pretreatment process or by shot blasting method.
 - b) Finish on internal Surface of the transformer: Powder coated, Epoxy polyester base, grade A, shade – White, Uniform thickness of 80 microns minimum.
 - c) Finish on outer surface: - Powder coated, Epoxy polyester base, grade A, shade– 7032, Uniform thickness of 120 microns minimum with 01 coat of primer & 02 coats of paint. Final colour-RAL 7032 Siemens Grey
 - d) All welding to be applied zinc rich paint before final painting

Specification for Repair of Damaged/Failed Dry Type Distribution Transformers**10.8 Earthing:**

- i) Earthing pad on enclosure for transformer earthing complete with Stainless Steel nut, bolt, washers, spring washers etc.
- ii) Copper earthing link shall be provided across all gasketed joints in the enclosure body.
- iii) LV additional neutral earthing bushing shall be provided outside the enclosure. Busbar connecting the neutral to additional neutral bushing shall be properly supported and additional neutral bushing shall be identified by identification plate on outside of enclosure.
- iv) Core, frame to tank earthing shall be provided.

10.9 All the core bolts and tie-rods shall have one flat washer, one spring washer, one nut and one lock nut.

11 DESIGNING OF THE TRANSFORMER WINDING

11.1 The transformer whose current density is more than 3.0A/sq. mm. for copper wound transformers & 1.5A/sq. mm. for Aluminum wound transformers shall be redesigned by the vendor to bring the current densities to the acceptable limits. For these transformers design validation is must.

11.1 The newly designed re-wounded transformer shall fulfill all the Guaranteed Particulars as per this specification.

11.2 The vendor shall submit the transformer winding design details as per the attached format in Annexure – III along with the relative calculations.

12 TRANSFORMER GUARANTEED PARTICULAR AFTER REPAIR**12.1 FREQUENCY**

The repaired transformers shall be suitable for continuous operation with a frequency variation of $\pm 3\%$ from normal frequency of 50 Hz without exceeding permissible temperature rise.

12.2 HIGHEST SYSTEM VOLTAGE

Primary 11 kV system voltage can be as high as + 10%. The repaired transformers shall be suitable for continuous operation with this voltage on the HV side.

12.4 NO LOAD VOLTAGE

Specification for Repair of Damaged/Failed Dry Type Distribution Transformers

The no-load voltage ratio of the repaired transformers shall be 11 / 0.433 kV.

12.5 IMPEDENCE VOLTAGE

The percentage impedance of the repaired distribution transformer shall be 5% for 250 to 1000 KVA and 6% for 1500 kVA transformer. The tolerance of percentage impedance shall be as per IS.

12.7 NO LOAD LOSS & LOAD LOSS

The no load losses of the transformer shall be maintained as per original design of the transformer, however, full load losses at 130^o C of transformer and at normal tap shall not exceed the following:

Sr. No.	Transformer rating (KVA)	Full Load Losses at 130°C (Watts)
1	250	2200
2	400	3400
3	630	5400
4	1000	7500
5	1500	11500

12.8 CURRENT DENSITY

The maximum permissible current density for HV & LV winding shall be 1.5 Amp / mm² for aluminum wound and 3.0 Amp/mm² for copper wound transformers.

13 SUNDRY ITEM

No extra payment shall be made for insulation material to be provided between HT & LT leg coils etc. These items and all other small items not covered in the price schedule shall be treated as included in sundry items. Cost of brass name plate etc. to be provided on repaired transformers is also covered under sundry items.

14 INSPECTION

The inspection of damaged / failed distribution transformer shall be completed in three stages details of which are given below

Initial JVR: The first stage consists of joint verification of damaged / failed distribution transformer at the works of bidder/repairer. The format of JVR is enclosed for ready reference (Annexure-IV).

Specification for Repair of Damaged/Failed Dry Type Distribution Transformers

Estimate approval: After the Stage Verification of damaged / failed distribution the Bidder/repairer has to submit the estimates for the approval to our C&M department. Repairs work will be started by the bidder/repairer only after approval of estimate.

Stage 1: The second stage consists of Stage Inspection of HV and LV coils (before and after casting/vacuum impregnation). The format of Stage Inspection is enclosed for ready reference (Annexure-V).

Stage 2: The third and final stage consist of final testing of repaired transformer as per clause 15 of this technical specification. The bidder/repairer has to submit the internal routine test report along with the final inspection call letter.

15 TESTS

- 15.1 All the transformers, after repair, shall be subjected to all routine tests specified in the relevant IS and technical specifications appended here to before offering the same for final inspection and acceptance testing.
- 15.2 Besides testing of transformers for the routine tests the inspecting officer shall be authorized to check / inspect transformer repair at any stage. All the documents of raw material consumed for repair shall be submitted by the vendor.

Following test reports of raw materials shall be submitted to the inspection office for verification:-

- (i) Raw material (Aluminium/Copper)-stage inspection
- (ii) Test report of resin Casting/Paper insulation-stage inspection
- (iii) All bought out components-final inspection

- 15.3 The purchaser reserves the right of having at Bidder/repairer's expenses, any test of reasonable nature carried out at the bidder/repairer's premises or at site in addition to the aforesaid tests and those included in the rate contract. The bidder/repairer shall be required to rectify the defects found in such tests at his own cost. The bidder/repairer shall send copies of test certificates to C&M/CES deptt. of BRPL and to the Engineer In-charge of the contract for every such transformer. The test certificates shall be properly signed by inspecting officer and authorized representative of the bidder/repairer.

Specification for Repair of Damaged/Failed Dry Type Distribution Transformers

15.4 All the repaired transformers shall be subjected to all the routine / Acceptance tests as per latest edition of IS: 11171, Following tests shall be conducted at the time of final inspection by BRPL officials at the works of the Bidder/repairer.

- i) Visual and dimension check for completely assembled transformer
- ii) Measurements of voltage ratio
- iii) Measurements of winding resistance at principal tap and two extreme taps.
- iv) Vector Group and polarity test
- v) Measurements of insulation resistance.
- vi) Separate sources voltage withstand test.
- vii) Measurement of iron losses and exciting current at rated frequency and 90%, 100% and 110% rated voltage.
- viii) Induced voltage withstand test.
- ix) Load losses measurement.
- x) Impedance measurement of principal tap (HV and LV) of the transformer.
- XI) temperature rise test shall be carried on one transformer of each rating and type per lot.
- xii) IP test on enclosure-As per rating plate (IP23 /IP34/IP44)

All the above tests / measurements shall be done by using calibrated test equipments. (Test equipments to be calibrated at NABL approved lab only)

16 PACKING & DESPATCH

The bidder/repairer shall provide strong protection and packing so as to avoid damage in transit and shall be responsible for losses or damages caused or occasioned during transit.

16.1 MARKING AND NAME PLATE

16.1.1 After satisfactory repair and testing the bidder/repairer shall fix name plate of length 10 cm and its width as that of original transformer manufacturer's name plate. This plate shall be fixed firmly by rivets (not by screws) on the body of repaired transformers just below the original manufacturer's name plate or at any other suitable place if the same is not possible. Following details shall be engraved on the aluminum plate. Cost of above is deemed to be included in sundry items and no extra payment shall be made.

- i) Repaired by
- ii) PO No. No. and Date
- iii) No Load and full Load losses
- iv) Guarantee period-5 years
- v) Inspected and tested on date

Specification for Repair of Damaged/Failed Dry Type Distribution Transformers

16.1.2 If the transformer is without the original name plate or name plate details are not legible, details as per IS:11171 part and year on one extra aluminium plate which shall be fixed on the transformer enclosure.

16.1.3 The drawing of both type of name plates, if applicable, shall be submitted for the approval of purchaser after completing the Joint Verification of damaged / failed distribution transformer.

17 FORMATS

Following formats are attached for the ready reference

- i) Approved Make of Components used in transformer during repair (Annexure-I)
- ii) Rate format for repair of Distribution transformer. (Annexure-II)
- iii) Winding Design format (Annexure-III)
- iv) Joint Verification format
 - Initial JVR (Annexure-IV)
 - Stage-1 (Annexure-V)
- v) Stage Inspection format
 - Raw Materials (Annexure-VII)
 - Stage-1 (Annexure-VIII)
 - Stage-2 (Annexure-IX)
- vi) Format for Handling Over & Taking Over (Annexure-X)
- vii) Format for Material quantity verification

Specification for Repair of Damaged/Failed Dry Type Distribution Transformers**ANNEXURE- I****APPROVED MAKES OF COMPONENTS USED IN TRANSFORMER DURING REPAIRS**

SI No.	Name of Component	Approved Make
1	Aluminium	Hindalco, Nalco, Sterlite, Birla
2	Winding Temperature Indicator	Precimeasure / Pecon
3	CT	Pragati/ECS/Kappa/Nortex/NPT
4	Terminals	Elmex/Connectwell
5	Steel	Essar/SAIL
6	Resin	Huntsmen
7	Lugs	Dowel/Comet/Jainson
8	Paper Insulation	Weidmamm, / Munjsko
*Vendor shall take prior approval of CES before using any other make than approved make.		

ANNEXURE-II**RATE FORMAT FOR REPAIRS OF DISTRIBUTION TRANSFORMERS**

Sr. No	Item	Unit	Rates for repairs of 250 KVA Transformer	Rates for repairs of 400 KVA Transformer	Rates for repairs of 630 KVA Transformer	Rates for repairs of 1000 KVA Transformer	Rates for repairs of 1500 KVA Transformer
(A)	SUPPLY PART:						
1	HV Copper leg coils complete with insulation	Per kg.					
2	LV Copper leg coils complete with insulation	Per kg.					
3	HV Support Insulator	Each					
4	LV Support Insulator	Each					
5	HV Busbar(copper)	Each					

Specification for Repair of Damaged/Failed Dry Type Distribution Transformers

Sr. No	Item	Unit	Rates for repairs of 250 KVA Transformer	Rates for repairs of 400 KVA Transformer	Rates for repairs of 630 KVA Transformer	Rates for repairs of 1000 KVA Transformer	Rates for repairs of 1500 KVA Transformer
6	LV Busbar(copper)	Each					
7	LV Cable support	Each					
8	HV Cable support	Each					
9	Off Circuit Tap links with enclosure	Each					
10	Coil supporter (Top & Bottom)	Each					
11	HV Coil separator	Each					
12	LV neutral bush metal parts	Each					
13	HV Earthing bush metal parts	Each					
14	Gaskets set for Earthing bushings	Each					
15	Door Limit Switch (on each door)	Each					
16	C.T.	Each					
17	Winding Temperature Indicator	Each					
18	Sundry items viz; screw, washer, Insulation material, minor repairs of enclosure,name plate, other parts required if any	Per Trf.					
19	Replacement of stainless steel wire mesh and rain guard	Per kg.					
20	HT Lugs	Each					
21	LT Lugs	Each					
22	Surge Arrester with complete connection	Each					
23	RTD	Each					
(B)	LABOUR PART:						
1	Labour charges for repairs and testing of transformer at bidder/repairer's work	Per Trf.					
2	Painting inside & outside	Per					



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Specification for Repair of Damaged/Failed Dry Type Distribution Transformers

Sr. No	Item	Unit	Rates for repairs of 250 KVA Transformer	Rates for repairs of 400 KVA Transformer	Rates for repairs of 630 KVA Transformer	Rates for repairs of 1000 KVA Transformer	Rates for repairs of 1500 KVA Transformer
	of enclosure and boxes with suitable primer & 2 coats of suitable paints of grey colour & marking etc.	Trf.					
3	Loading at site/ stores, to and fro transportation to bidder/repairer's factory and back to Grid/Site, unloading at Grid/Site including insurance cover	Per Trf.					
(C)	CREDITS:	Unit					
1	Scrap of old leg coils only	Per kg.					
2	Damaged louvers/wiremesh	Per kg.					
3	Damaged HV Busbar	Per kg.					
4	Damaged LV Busbar	Per kg.					
5	Damaged CRCA	Per Kg					

ANNEXURE-III**TRANSFORMER WINDING DESIGN DETAILS**

SAP TAG NO.

KVA RATING-

No Load Voltage Ratio- 11KV/ 433V

Taps- (-)5% to (+)5% Cu / Al Wound- Both HV & LV

Guaranteed Load loss at 130 deg C- _____ KW

Frequency- 50Hz

Colling-IP34

S. No	Particulars	LV Winding	HV Winding
1	Type of Coils/ Windings		
2	No. of coils/ Discs per limb		
3	No. of turns per phase		
4	Mean length turn (MLT) in mm		

Specification for Repair of Damaged/Failed Dry Type Distribution Transformers

S. No	Particulars	LV Winding	HV Winding
5	Conductor size (Bare)		
6	Gauge/area of cross section of conductor, sqmm		
7	Insulation material Details		
7.1	HV turn		
7.2	LV turn		
7.3	HV to core		
7.4	LV to core		
7.5	HV to LV		
8	Insulation material thickness in mm		
8.1	HV turn		
8.2	LV turn		
8.4	LV to core/		
8.5	HV to LV		
9	Tap link Current rating , A		
10	Inside diameter of winding		
11	outside diameter of winding		
12	Axial length of winding		
13	Minimum design clearance		
13.1	HV to earth in air		
13.2	LV to earth in air		
13.3	Between HV & LV in Air		
13.4	Top winding and yoke		
13.5	Phase to phase clearance between HV limbs		
14	Inter Phase connections		
15	Total weight of bare conductor (Kg)		
16	Total weight of casted/Vaccumm impregnated conductor (Kg)		
17	Total weight of insulation between HT & LT		
18	Total load losses at 130 degC		
19	Resistance per phase at 130 deg C (Ohms)		
20	% Impedance		
21	Current at full load per phase in A		
22	Current Density (max) in A/sqmm		
23	Current Density (max) in A/sqmm as per JVR		
24	Weight of Copper per limb (in Kg) during JVR		

Specification for Repair of Damaged/Failed Dry Type Distribution Transformers

S. No	Particulars	LV Winding	HV Winding
25	Total Weight of Copper limb (in Kg) during JVR		
26	ID/OD of Coils durinh JVR(mm)		
27	Axial Height of Coil Durng JVR(mm)		
28	Core Dia (mm)		
29	Window height(mm)		
30	Leg Centre(mm)		
31	Core Area (By measurement of Steps and Stp Height)		

Note :-

- 1) Design calculations to be submitted for total load loss & % impedance at respective ambient temperature and converting to 130 deg C.
- 2) Temperature rise calculation for HV & LV winding to be submitted



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Specification for Repair of Damaged/Failed Dry Type Distribution Transformers

ANNEXURE - IV -

JOINT VERIFICATION REPORT (REPAIR)

Vendor :
P.O. No.:

Date :-

Sr. No.	Testing Parameters	Transformer Details	Remarks (if any)
1	kVA Rating of the transformer		
1a	Tapping Range		
2	SAP Code		
3	Firm Code		
4	Old Sr. No. of the transformer		
5	Make		
6	Core Details		
a	Material & Thickness of laminations		
b	Window height (in mm)		
c	Limb Centre		
d	Wt. Of stamping in core & yoke (in kg)		
e	Core Dia		
7	HT Windings		
a	Wt. Of HV Cu. / Limb (in kg)		
b	Total Wt. Of HV Cu. Limbs (in kg)		
c	HV conductor size (in mm)		
d	No. of HT Turns (in No.)		
e	Current density (in A/ sq. mm.)		
f	Total wt. Of HV metal part (in kg)		
g	ID/OD of Coil		
h	Axial Length of Coil		
8	LT Windings		
a	Wt. Of LV Cu. / Limb (in kg)		
b	Total Wt. Of LV Cu. Limbs (in kg)		
c	LV conductor size (in mm)		
d	No. of LT Turns (in No.)		
e	Current density (in A/ sq. mm.)		
f	Total wt. Of LV metal part (in kg)		
g	ID/OD of Coil		
h	Axial Length of Coil		
9	Total weight of HV & LV Cu. Limbs (in kg)		
10	Total weight of HV & LV metal parts (in kg)		
11	Condition of enclosure/bottom /top/sides		
12	Condition of doors/louvers		

Note:

1. D=Damaged, M= Missing, TC&R= To be checked and replaced if necessary.
2. Temperature rise shall be conducted on one transformer of each lot.
3. Gasket set and arching horn are to be replaced in all the transformer.
5. If labour, Sundry items, painting etc is required then necessary remarks to be given.
6. If core lamination is damaged, the transformer shall be sealed with all its parts & returned to BRPL stores.
7. Vendor may be allowed to dispose all detained material after approval of estimate for repair BRPL.
8. Total three (3) copies of joint verification report is required.
9. All the HV & LV coils shall be damaged by hammering or cutting onto pieces in front of the BRPL representative.
10. Please attach handing over & taking over details as "ANNEXURE".



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Specification for Repair of Damaged/Failed Dry Type Distribution Transformers

ANNEXURE – V

STAGE INSPECTION REPORT (REPAIR)

Vendor :

P.O.No.:

Date :-

Sr. No.	Testing Parameters	Transformer Details	Remarks (if any)
1	kVA Rating of the transformer		
2	SAP Code		
3	Firm Code		
4	Old Sr. No. of the transformer		
5	Make		
6	HT Windings		
a	No. of HT Turns (in No.)		
b1	HV conductor size (in mm)		
b2	HV Tap size(if different) in mm		
c1	Cross section area HV (in sq. mm.)		
c2	Cross section area of Tap Wdg (if conductor size different than HVM) in mm		
d	ID (in mm)		
e	OD (in mm)		
f	AXL (in mm)		
g1	Current density HV (in A/ sq. mm.)		
g2	Current density of Tap Wdg(if conductor size different than HVM)-A/mm ² (Stage)		
h	Current density (in A/ sq. mm.) (JVR)		
i	Wt. Of HV coils/limb (in kg) (Stage)		
j	Wt. Of HV coils/limb (in kg) (JVR)		
7	LT Windings		
a	No. of LT Turns (in No.)		
b	LV conductor size (in mm)		
c	Cross section area (in sq. mm.)		
d	ID (in mm)		
e	OD (in mm)		
f	AXL (in mm)		
g	Current density (in A/ sq. mm.) (Stage)		
h	Current density (in A/ sq. mm.) (JVR)		
i	Wt. Of LV coils/limb (in kg) (Stage)		
j	Wt. Of LV coils/limb (in kg) (JVR)		

Specification for Repair of Damaged/Failed Dry Type Distribution Transformers**ANNEXURE-VI****List of Transformer fittings and Accessories**

S.No.	Item	Unit	Transformer Details
1	HV Support Insulator	Each	
2	LV Support Insulator	Each	
3	HV Busbar(copper)	Each	
4	LV Busbar(copper)	Each	
5	LV Cable support	Each	
6	HV Cable support	Each	
7	Off Circuit Tap links with enclosure	Each	
8	Coil supporter (Top & Bottom)	Each	
9	HV Coil separator	Each	
10	LV neutral bush metal parts	Each	
11	HV Earthing bush metal parts	Each	
12	Gaskets set for Earthing bushings	Each	
13	Door Limit Switch (on each door)	Each	
14	C.T.	Each	
15	Winding Temperature Indicator	Each	
16	Sundry items viz; screw, washer, Insulation material, minor repairs of enclosure,name plate, other parts required if any	Per Trf.	
17	Replacement of stainless steel wire mesh and rain guard	Per kg.	
18	HT Lugs	Each	
19	LT Lugs	Each	
20	Surge Arrester with complete connection	Each	
21	RTD	Each	

Note: 1) Quantity of each fitting and Accessory to be verified at the time of final inspection.

Specification for Repair of Damaged/Failed Dry Type Distribution Transformers

2) The above list to be submitted along with final inspection report.

ANNEXURE-VII**MATERIAL Quantity Verification**

S. No	Material Code	Description	Unit	Transformer Details
1		HV Copper leg coils complete with insulation	Per kg.	
2		LV Copper leg coils complete with insulation	Per kg.	
3		HV Support Insulator	Each	
4		LV Support Insulator	Each	
5		HV Busbar(copper)	Each	
6		LV Busbar(copper)	Each	
7		LV Cable support	Each	
8		HV Cable support	Each	
9		Off Circuit Tap links with enclosure	Each	

Specification for Repair of Damaged/Failed Dry Type Distribution Transformers

S. No	Material Code	Description	Unit	Transformer Details
10		Coil supporter (Top & Bottom)	Each	
11		HV Coil separator	Each	
12		LV neutral bush metal parts	Each	
13		HV Earthing bush metal parts	Each	
14		Gaskets set for Earthing bushings	Each	
15		Door Limit Switch (on each door)	Each	
16		C.T.	Each	
17		Winding Temperature Indicator	Each	
18		Sundry items viz; screw, washer, Insulation material, minor repairs of enclosure,name plate, other parts required if any	Per Trf.	
19		Replacement of stainless steel wire mesh and rain guard	Per kg.	
20		HT Lugs	Each	

Specification for Repair of Damaged/Failed Dry Type Distribution Transformers

S. No	Material Code	Description	Unit	Transformer Details
21		LT Lugs	Each	
22		Surge Arrester with complete connection	Each	
23		RTD	Each	
24		Labour charges for repairs and testing of transformer at bidder/repairer's work	Per Trf.	
25		Painting inside & outside of enclosure and boxes with suitable primer & 2 coats of suitable paints of grey colour & marking etc.	Per Trf.	
26		Loading at site/ stores, to and fro transportation to bidder/repairer's factory and back to Grid/Site, unloading at Grid/Site including insurance cover	Per Trf.	
27		Scrap of old leg coils only	Per kg.	
28		Damaged louvers/wiremesh	Per kg.	
29		Damaged HV Busbar	Per kg.	
30		Damaged LV Busbar	Per kg.	
31		Damaged CRCA	Per kg.	

Note: 1) Material quantity to be specified in accordance with the final estimate, stage and final inspection report.

SCHEDULE - A

SCHEDULE OF GENERAL PARTICULARS

1. Name of the firm:
2. Registered Office Address:
3. Complete Address of the Works:
4. Total space occupied in sq. meters:
(Covered area & open area)
5. Mention Type of Ownership Whether:
Proprietary/Partnership/Pvt. Ltd./Ltd. Firm
6. Type of industry whether SSI/Medium/Large:
7. Repairing capacity per month of the Distribution transformer:

Note: Enclose photocopies of relevant documents.

SCHEDULE – B

FORMAT FOR DETAILS OF PAST SUPPLIES/REPAIRING

S.N	Financial Year	Name of SEBs/ Govt. Department/ Public Sector Utility/Private/ Discoms to whom Dry type trf. supplied/ repaired	Order Reference No.	Rating	Qty.	Total Quantity (For Financial Year)
1.						Rating 1000KVA
2.						Rating 1000KVA

Note: Enclose complete details including performance certificates. Attach additional sheet if required

SCHEDULE – C

LIST OF TESTING EQUIPMENTS/INSTRUMENTS

Sl. No.	Name of Instruments	Qty. available	Make	Range

SCHEDULE – D

LIST OF TOOLS & TACKLES

SI No.	Name of tools & tackles	Qty. available	Make

SCHEDULE – E

**DETAILS OF QUALIFIED PERSONS EMPLOYED IN MANUFACTURE/
REPAIR OF TRANSFORMER**

S.No.	Name	Qualification	Since when working with tenderer

- (a) In respect of graduate Engineers:
- (b) In respect of diploma in engineering:
- (c) In respect of Technicians:
- (d) Total number of other workers employed in manufacture/repair of transformers with the Tenderer:

Skilled workers

Un-skilled workers

(Nos.)

(Nos.)

BID FORM

To

Head of Department
Contracts & Material Deptt.
BSES Rajdhani Power Ltd
I Floor, "C" Block, BSES Bhawan
Nehru Place, New Delhi-110019
Sir,

1. We understand that BRPL is desirous of services in it's licensed distribution network area in Delhi
2. Having examined the Bidding Documents for the above named works, we the undersigned, offer to deliver the goods in full conformity with the Terms and Conditions and technical specifications or such other sums as may be determined in accordance with the terms and conditions of the contract .The above amounts are in accordance with the Price Schedules attached herewith and are made part of this bid.
3. If our Bid is accepted, we will furnish a performance bank guarantee for an amount of 5% (Five)percent of the total contract value for due performance of the Contract in accordance with the Terms and Conditions.
4. We agree to abide by this Bid for a period of days from the due date of bid submission and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
5. We declare that we have studied the provision of Indian Laws for supply of equipments/materials and the prices have been quoted accordingly.
6. Unless and until Letter of Intent is issued, this Bid, together with your written acceptance thereof, shall constitute a binding contract between us.
7. We understand that you are not bound to accept the lowest, or any bid you may receive.
8. There is provision for Resolution of Disputes under this Contract, in accordance with the Laws and Jurisdiction of Contract.

Dated this..... day of..... 21

Signature..... In the capacity of

.....duly authorized to sign for and on behalf of (IN
BLOCK

CAPITALS).....

APPENDIX-I

PROFORMA OF CONTRACT PERFORMANCE BANK GUARANTEE

(TO BE ISSUED ON RS 100/- STAMP PAPER)

Bank Guarantee No.

Place:

Date:

To

BSES Rajdhani Power Limited

Whereas BSES RAJDHANI POWER LTD (hereinafter referred to as the "Purchaser", which expression shall unless repugnant to the context or meaning thereof include its successors, administrators and assigns) has awarded to M/s.. with its Registered/ Head Office at

(hereinafter referred to as the "Supplier" which expression shall unless repugnant to the context or meaning thereof, include its successors administrators, executors and assigns), a contract no. dated (the Contract);

And whereas the value of the Contract is Rs. (The Contract Value).

And whereas it is a condition of the Contract that the Supplier shall provide a Performance Bank Guarantee for the due and faithful performance of the entire Contract for a sum equivalent to - % of the Contract Value to the Purchaser on or before

And whereas the Bank under instructions from the Supplier has agreed to guarantee the due performance of the Contract.

Now it is agreed as follows:

1. we (Name of the Bank) having its Head Office at

(hereinafter referred to as the Bank, which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) shall indemnify and keep indemnified the Purchaser for, and guarantee and undertake to pay to the Purchaser immediately on written demand, a sum equivalent to % of the Contract Value as aforesaid at any time upto (day/month/year) without any demur, reservation,

contest, recourse or protest and/or without any reference to the Supplier, against all losses, damages, costs and expenses that may be caused to or suffered by the Purchaser by reason of any default on the part of the Supplier in performing and observing any and all the terms and conditions of the Contract or breach on the part of the Supplier of terms or conditions of the Contract.

2. The demand shall consist only of an original letter issued by Purchaser stating that the Supplier has failed to fulfill its obligations under the Contract. Such demand made by the Purchaser on the Bank shall be conclusive and binding notwithstanding any difference or dispute between the Purchaser and the Supplier or any difference or dispute pending before any Court, Tribunal, Arbitrator or any other authority.

3. The Bank undertakes not to revoke this guarantee during its currency without previous written consent of the Purchaser and further agrees that the guarantee herein contained shall continue to be enforceable during the period that would be taken for satisfactory performance and fulfillment in all respects of the Contract or in the event of any dispute between the Purchaser and Supplier until the dispute is settled (provided that the claim/ demand under this guarantee is lodged /referred during the currency of this guarantee) or till the Purchaser discharges this guarantee whichever is earlier.

4. The Purchaser shall have the fullest liberty without affecting in any way the liability of the Bank under this guarantee from time to time to extend the time for performance of the Contract by the Supplier. The Purchaser shall have the fullest liberty, without affecting the liability of the Bank under this guarantee, to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the Supplier, and to exercise the same at any time in any manner, and either to enforce or to forbear to enforce any covenants, contained or implied, in the Contract. or any other course or remedy or security available to the Purchaser. The Bank shall not be released of its obligations under these presents by any exercise by the Purchaser of its liberty with reference: to the matters aforesaid or any of them or by reason of any other act or forbearance or other acts of omission or commission on the part of the Purchaser or any other indulgence shown by the Purchaser or by any other matter or thing whatsoever which under law would, but for this provision, have the effect of relieving the Bank.

5. The Bank agrees that the Purchaser and its option shall be entitled to enforce this guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Supplier and notwithstanding any security or other guarantee that the Purchaser may have in relation to the Supplier's liabilities.

6. Notwithstanding anything contained hereinabove the liability of the Bank under this guarantee is restricted to a sum equivalent to % of the Contract Value ie. Rs.(Rupees) and it shall remain in force upto and



BSES Rajdhani Power Limited

including .Unless a demand to enforce a claim under this guarantee is made against the Bank within 3 months from the the above date of expiry i.e. up to all the rights of the Purchaser under the said guarantee shall be forfeited and the Bank shall be released and discharged from all liabilities thereafter.

7. This Performance Bank Guarantee shall be governed by the laws of India.

Dated this Witness

day of 2021 at

1. For Bank
2. Signature Name Power
of Attorney No:

Banker's Seal

FORMAT FOR EMD BANK GUARANTEE

(To be issued in a Non Judicial Stamp Paper of Rs.50/-purchased in the name of the bank)

Whereas [*name of the Bidder*] (herein after called the “Bidder“) has submitted its bid dated[*date of submission of bid*] for the supply of [*name and/or description of the goods*] (here after called the “Bid”).

KNOW ALL PEOPLE by these presents that WE [*name of bank*] at [*Branch Name and address*],having our registered office at[*address of the registered office of the bank*](herein after called the “Bank“),are bound unto BSES Rajdhani Power Ltd., with it’s Corporate Office at BSES Bhawan, Nehru Place, New Delhi-110019 ,(herein after called —the “Purchaser““in the sum of Rs..... (Rupees..... only) for which payment well and truly to be made to the said Purchaser, the Bank binds itself, its successors, and assigns by these presents.

Sealed with the Common Seal of the said Bank this _____ day of _____ 2021_____.

THE CONDITIONS of this obligation are:

- 1 If the Bidder withdraws its Bid during the period of bid validity specified by the Bidder on the Bid Form ; or
2. If the Bidder, having been notified of the acceptance of its Bid by the Purchaser during the period of bid validity:
 - (a) fails or refuses to execute the Contract Form ,if required; or
 - (b) fails or refuses to furnish the performance security, In accordance with the Instructions to Bidders/ Terms and Conditions;

We undertake to pay to the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that is its demand the purchaser will note that amount claimed by it is due to it, owing to the occurrence of one or both of the two condition(s), specifying the occurred condition or condition(s).

This guarantee will remain valid for 6(six) months after last date of receipt of tenders, and any demand in respect thereof should reach the Bank not later than the above date.

(Stamp & signature of the bank)

Signature of the witness

Communication Details

Bidder should furnish the below details for future communication:-

<u>GENERAL INFORMATION</u>	
NAME OF COMPANY	
POSTAL ADDRESS	

FOR TECHNICAL QUERY:		
CONTACT PERSON & DESIGNATION	NAME	DESIGNATION
E-MAIL	MOBILE NO	TELEPHONE NO

FOR COMMERCIAL QUERY:		
CONTACT PERSON & DESIGNATION	NAME	DESIGNATION
E-MAIL	MOBILE NO	TELEPHONE NO

TERMS & CONDITIONS FOR REVERSE AUCTION

In a bid to make our entire procurement process more fair and transparent, BRPL intends to use the reverse auctions through SAP-SRM tool as an integral part of the entire tendering process. All the bidders who are found as techno commercially qualified based on the tender requirements shall be eligible to participate in the reverse auction event.

Reverse auction shall be governed by following terms and conditions:

1. BRPL shall provide the user id and password to the authorized representative of the bidder. (Duly signed Authorization Letter in lieu of the same shall be submitted along with the bid).
2. BRPL will make every effort to make the bid process transparent. However, the award decision by BRPL would be final and binding on the bidder.
3. The bidder agrees to non-disclosure of trade information regarding the purchase, identity of BRPL, bid process, bid technology, bid documentation and bid details.
4. The bidder is advised to understand the auto bid process to safeguard themselves against any possibility of non-participation in the auction event.
5. Bidders are further advised to ensure availability of the entire infrastructure as required at their end to participate in the auction event. Inability to bid due to telephone line glitch, Internet response issues, software or hardware hangs; power failure or any other reason shall not be the responsibility of BRPL.
6. In case the bidder fails to participate in the auction event due any reason whatsoever, it shall be presumed that the bidder has no further discounts to offer and the initial bid as submitted by the bidder as a part of the tender shall be considered as the bidder's final no regret offer. Any offline price bids received from a bidder in lieu of non-participation in the auction event shall be outrightly rejected by BRPL.
7. The bidder shall be prepared with competitive price quotes on the day of the bidding event.
8. The prices as quoted by the bidder during the auction event shall be inclusive of all the applicable taxes, duties and levies and shall be FOR at BRPL site/ store
9. The prices submitted by a bidder during the auction event shall be binding on the bidder.
10. No requests for time extension of the auction event shall be considered by BRPL.
11. The discount received after the RA and final negotiation, w.r.t. the initial financial bid shall be applied on all the items on a pro rata basis.
12. In case RA is not conducted /concluded for any reasons, a "final no regret" financial bid in a sealed envelope will be called for from all qualified bidders.