



# Tamil Nadu Newsprint and Papers Limited

( A Government of Tamil Nadu Enterprise)

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**TENDER NO : 232413006707**

**DT.22.07.2024**

Dear Sirs,

Sub: E - Tender for Procurement of 11/0.433KV, 2 MVA, THYRISTOR DUTY, DYN11 DISTRIBUTION TRANSFORMER WITH ACCESSORIES – Reg

Ref: Tender No. 232413006707 dt.22.07.2024

TNPL would like to procure 1 No of **11/0.433KV, 2 MVA, THYRISTOR DUTY, DYN11 DISTRIBUTION TRANSFORMER WITH ACCESSORIES** against the above referred tender. In this connection please find enclosed the following:

1	E-tendering Terms and conditions	Annexure – I
2	Qualifying factors of the tender	Annexure – II
3	Technical Specifications	Annexure – III
4	a. General Terms and Conditions, b. Terms & Conditions for Reverse Auction c. Process Compliance Statement	Annexure – IV
5	Technical cum Commercial Bid	Annexure – V
6	Price Bid schedule	Annexure – VI

The tenderers are requested to go through the E – tendering terms and conditions, General terms and conditions of the Tender, Terms and Conditions for Reverse Auction (e-auction) and Process Compliance Statement carefully.

**The due date for submission of Tender documents including the Technical Cum Commercial Bid, Tender fee, EMD and the Price bid online through E-procurement portal (<https://tntenders.gov.in/nicgep/app>) is 31.07.2024 before 3:00 PM. The Technical Cum Commercial Bid will be opened through online portal at 04:00 PM on 01.08.2024.**

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**TENDER OPENING AND TECHNICAL BID EVALUATION**

- a. Technical Bid opening will be done online and technical evaluation will be carried out after the due date of submission of online Bid.
- b. TNPL will examine the Technical Bids against the Qualifying criteria and Technical cum Commercial bid given in the Tender document.
- c. Evaluation will be done based on the documents submitted by the Bidder. The offered material should strictly conform to TNPL specification/requirements. The Bids which are not meeting Qualifying criteria will be rejected and further processing will not be carried out.
- d. Decision of TNPL is final and no dispute can be raised by any Bidder for rejection of their Bids and no claims on this account will be entertained.
- e. The Bidders whose Bids meet the Qualifying Criteria and Technical specifications of the tender will be called as "Technically Qualified Bidders".
- f. In case if the Bidder fails to comply with the requirements of TNPL, such Bids will be rejected without entertaining further correspondence in this regard.

**Please note that the points asked for in Annexure-II are the qualifying factors of the Tender. Tenderers who do not comply with the conditions with documentary proof (wherever required) will not be qualified in the Tender for Price bid opening and E-reverse auction stage.**

**OPENING OF THE PRICE BIDS:**

The date and time of opening of Price Bids will be later notified through registered e-mail to the Bidders who fulfill the tender terms and conditions.

**Note: At the price bid stage, TNPL would adopt the following methodology to finalize the tender.**

- (a) Technical Bid is to be filled in the given format & uploaded.
- (b) Price Bid (BOQ) is to be filled in the given format & uploaded.
- (c) In the e-tender, the price bids received from the technically qualified bidders will be opened electronically.
- (d) The opening price for the e - auction will be the lowest price obtained in the price bid or the opening price fixed by TNPL. The opening price, the minimum bid decrement and the date and time of the **e-auction** (<https://tntenders.gov.in/nicgep/app>), will be communicated to the qualified bidders.

**(e) The lowest offer received either through e-portal price bid (BOQ) or through e-auction whichever is lower, will only be considered for placement of order.**

Further, if the bidders offer is not qualified as per the qualifying factor mentioned in the tender, their price bid (BOQ) will not be opened.

**Note : All the clarification in the document and specification at once shall be requested by E-mail to [purchase.elec@tnpl.co.in](mailto:purchase.elec@tnpl.co.in)**



## TAMILNADU NEWSPRINT AND PAPERS LTD

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**(3)**

**Submission of Tender fee and Earnest Money Deposit (EMD):** Bidders should submit tender fee and EMD amount separately for this tender as detailed below:-

**TENDER FEE: Non Refundable Tender Fee of Rs.590/-** should be remitted through NIC online payment gateway.

**EMD: EMD of Rs 50,000/- (Rupees Fifty Thousand Only)** should be remitted through NIC online payment gateway.

The remittance details of both Tender fee and EMD should also be furnished in the Technical cum Commercial Bid. Further remittance statement / UTR details should be uploaded in the online procurement portal : <https://tntenders.gov.in/nicgep/app>

Offers received without Tender fee and EMD are liable for rejection. TNPL will not entertain any request for adjusting the EMD from the tenderer's due / running bills or from the EMD / Security Deposit of any other tender participated by the tenderer.

**EMD amount will not bear any interest and will be returned to the unsuccessful bidders after releasing the order.**

**NOTE:**

TNPL is not bound to accept the lowest quotation and TNPL may accept or reject the lowest quotation or any quotation at its sole discretion and go for re-tendering in case the lowest rate obtained in the tender is considered higher.

**TNPL reserve the right to reject any or all tenders at it's own discretion without assigning any reason whatsoever and TNPL is not responsible for any other delay in submission of online bid on due date and time (Server time) through E-tendering portal <https://tntenders.gov.in/nicgep/app>.**

Thanking you,  
Yours faithfully,

for **TAMIL NADU NEWSPRINT AND PAPERS LIMITED,**

**DGM (PURCHASE)**

Encl: as above

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**ANNEXURE – I: E-TENDERING TERMS AND CONDITIONS****INSTRUCTION TO BIDDERS FOR SUBMISSION OF ONLINE BIDS IN E-TENDER**

**Techno-commercial bids and price bids should be submitted through the following link <https://tntenders.gov.in/nicgep/app>**

The tender will be processed online through e-tender and e-reverse auction. The bidder shall submit his response through bid submission to the tender in the online procurement platform at NIC's website <https://tntenders.gov.in/nicgep/app>. No other forms of bid submission is accepted. Bidders are requested to quote their price through the online e-procurement portal/system only.

The procedures to be followed are explained below:

- a) Techno-Commercial Bids are to be filled in the given formats attached. The required and mandatory formats are available in the Tender Document in the e-portal.
- b) Price Bids are to be filled in the e-portal in the relevant web pages enabled for the bidders. Price bids will be opened before- reverse auction.

- Bidders are requested to read the instructions and terms & conditions carefully before submitting their online tenders.
- The Bidders are required to submit soft copies of their Bids electronically on the TAMILNADU GOVERNMENT E PROCUREMENT Portal, using valid Digital Signature Certificates. The necessary instructions are given to assist the Bidders in registering on the TAMILNADU GOVERNMENT E PROCUREMENT Portal, prepare their Bids in accordance with the requirements and submitting their Bids online on the TAMILNADU GOVERNMENT E PROCUREMENT Portal.
- More useful information for submitting online Bids on the TAMILNADU GOVERNMENT E PROCUREMENT Portal may be obtained at: <https://tntenders.gov.in/nicgep/app>)

**The bidding under this contract is electronic bid submission through website <https://tntenders.gov.in/nicgep/app> only. Detailed guidelines for viewing bids and submission of online bids are given on the website. The bidder's can logon to this website and view the invitation for Bids and can view the details of Materials /works for which bids are invited.**

**1 REGISTRATION:**

- 1.1 The bidders needs to submit bids online. However, the bidders are required to have enrolment/registration in the website by clicking on the link "**Online bidder enrolment**" which is free of charge.
- 1.2 As part of the enrolment process, the bidders are required to choose a unique user name and assign a password for their accounts.
- 1.3 Bidders are advised to register their valid email address and mobile number as part of the registration process. These details would be used for any communication from the e-Portal.
- 1.4 Upon enrolment, the bidders are required to register their valid Digital Signature Certificate (DSC) (Class Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / nCode / eMudhra etc.), with their profile.
- 1.5 Only one valid DSC should be registered by a bidder. Please note that the bidders should ensure that they do not lend their DSC to others which may lead to misuse.

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1.6 Bidder then can login to the site through the secured login by entering their user ID / password and the password of the DSC / e-Token.

**2.0 CONTACT PERSONS:**

<u>For queries related to registration and online bidding (NIC CONTACT):</u>	<u>For Other Queries TNPL CONTACT</u>
e-mail: <a href="mailto:support.etender@nic.in">support.etender@nic.in</a> Contact No.: 044 – 24461505	E_mail: <a href="mailto:eps.support@tnpl.co.in">eps.support@tnpl.co.in</a> Contact no: <b>94894 00798</b>

**3.0 SYSTEM REQUIREMENT:**

- i. Operating System: Windows 7 or above, RAM – 1GB and above
- ii. Internet connectivity with at least 2 Mbps speed
- iii. Internet browser: IE 9 and above (or) Mozilla Firefox 3.5 up to version 49
- iv. Signing type: Digital Signature (class III)
- v. JRE 8.0 software to be downloaded and installed in the system.  
To enable ALL active X controls and disable 'use pop up blocker' under Tools→Internet Options→ custom level (Please run IE settings once)

**4.0 SEARCHING FOR TENDER DOCUMENT:**

- 4.1** There are various search options built in the Website, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, organization name, location, date, value, etc.
- 4.2** Once the bidders have selected the tenders they are interested in, they may download the required documents/tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the Tamil Nadu Govt. e-Procurement Portal, to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
- 4.3** The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

**5.0 PREPARATION OF BIDS:**

- 5.1** Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- 5.2** Bidders are requested to go through the NIT and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
- 5.3** Bidders, in advance, should get ready the bid documents to be submitted as indicated in the tender document and generally, they can be in PDF / XLS / RAR / DWF / JPG formats. Bid documents may be scanned with 100 dpi, which helps in reducing size of the scanned document. Since the uploaded documents shall be downloaded for evaluation of bid, bidders are advised to **upload clear scanned copies.**
- 5.4** The completed bid comprising scanned copy of the proof for the payment of Tender fee/ EMD (if any) and necessary technical and commercial documents should be uploaded on the website along with signed and scanned copies of requisite certificates are mentioned in the different sections in the tender document.

**6.0 PROCEDURE FOR ELECTRONIC SUBMISSION OF BIDS:**

The bidder shall submit online, the requirements under qualification criteria and Technical Documents required and Price Schedule/BOQ. All the documents are required to be signed digitally by the bidder. After electronic online bid submission, the system generates a unique bid reference number which is time stamped. This shall be treated as acknowledgement of bid submission.

- 6.1 Bidder should log- in to the site well in advance for Bid submission so that they can upload the Bid in time i.e. on or before the Bid submission time. Bidder will be responsible for any delay due to other issues.
- 6.2 The Bidder has to digitally sign and upload the required Bid documents one by one as indicated in the Bid document.
- 6.3 Bidder has to select the payment option as "offline" to pay the tender fee and EMD as applicable and enter details of the instrument.**
- 6.4 Bidder should prepare and submit the Tender fee & EMD as per the instructions specified in the Bid document.
- 6.5 Bidders are requested to note that they should necessarily submit their price Bids in the format provided and no other format is acceptable. If the price Bid has been given as a standard BOQ format with the tender document, then the same is to be downloaded and to be filled by the Bidder. Bidders are required to download the BOQ file, open it and complete the Blue colored (unprotected) cells with their respective financial quotes and other details (such as name of the Bidder etc). No other cells should be changed. Once the details have been completed, the Bidder should save it and submit it online, without changing the filename. If the BOQ file is found to be modified by the Bidder, the Bid will be rejected.
- 6.6 The server time (which is displayed on the Bidders' dash board) will be considered as the standard time for referencing the deadlines for submission of the Bids by the Bidders, opening of Bids etc. The Bidders should follow this time during Bid submission.
- 6.7 All the documents being submitted by the Bidders would be encrypted to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of Bid opening. The confidentiality of the Bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done. Any Bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/Bid openers public keys.
- 6.8 The uploaded Bid documents become readable only after the tender opening by the authorized Bid openers
- 6.9 Upon the successful and timely submission of Bid (i.e., after Clicking "Freeze Bid Submission" in the portal), the portal will give a successful Bid submission message & a Bid summary will be displayed with the Bid no. and the date & time of submission of the Bid with all other relevant details.

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- 6.10 The Bid summary has to be printed and kept as an acknowledgement of the submission of the Bid
- 6.11 In all cases, Bidders should use their own ID and Password along with Digital Signature certificate at the time of submission of their Bid
- 6.12 During the entire e-tender process, the Bidders will remain completely anonymous to one another and also to everybody else.
- 6.13 The e-tender floor shall remain open from the pre-announced date & time till the specified due date & time.
- 6.14 The electronic Bid submitted during the e-tender process shall be legally binding on the Bidder. Any Bid will be considered as valid only if it is submitted in the prescribed format given in the Bid document.
- 6.15 It is mandatory that all the Bids are submitted with digital signature certificate otherwise the same will not be accepted by the system.
- 6.16 TNPL reserves the right to cancel or reject or accept or withdraw or extend the due date for submission of Bid as the case may be without assigning any reason thereof.
- 6.17 The NIC server time shall be treated as final and binding. Bids recorded in the server before the Bid closing time will only be treated as valid Bid. Bidders are, therefore, advised to submit their Bids well before the closing time of e-tender. If any Bid reaches the server after the Bid closing time as per server time, the same will not be recorded and no complaint in this regard shall be entertained. TNPL is not responsible for any sort of delay or the difficulties faced during the submission of Bids online by the Bidders due to local issues.
- 6.18 Bidders are advised to exercise caution in submitting their Bids in e-tender and e-Reverse Auction, as the case may be, to avoid any mistake. Bids once submitted can't be recalled.
- 6.19 Any order resulting from this Bidding process shall be governed by the terms and conditions mentioned in the Bid Documents.
- 6.20 No deviation to the technical and commercial terms & conditions are acceptable.
- 6.21 Bidders are required to sign in each page of the Bid specification.
- 6.22 TNPL may, at its discretion, extend the deadline for the submission of bids by amending the bidding document, in which case all rights and obligations of TNPL and bidders subject to the previous deadline shall thereafter be subject to the deadline extended.

**7.0 LATE BID:**

The Electronic bidding system would not allow any late submission of bids after due date and time, as per server time.

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- 8.1 Bidders may modify their bids online before the deadline for submission of bids.
- 8.2 In case a bidder intends to modify his bid online before the deadline, the bidder need not make any additional payment towards the cost of bid processing. For bid modification and consequential re-submission, the bidder is not required to withdraw his bid submitted earlier. Modification and consequential re-submission of bids is allowed any number of times. The last modified bid submitted by the bidder within the bid submission time shall be considered as the bid. For this purpose, modification/withdrawal by other means will not be accepted. The bidder may withdraw his bid by uploading his request before the deadline for submission of bids, however, if the bid is withdrawn, the re-submission of the bid is not allowed.
- 8.3 No bid may be modified after the deadline for submission of Bids.

**9.0 ASSISTANCE TO BIDDERS:**

- 9.1 Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person / email ID indicated in the Notice inviting tender.
- 9.2 Any queries relating to the process of online bid submission or queries in general may be directed to the 24x7 Central Public Procurement Portal Helpdesk.

It may be noted by the bidders that NIC is only a service provider for conducting the online bidding process against this tender and shall not be a party to any contract between TNPL and the successful bidder(s) subsequent to the bidding process.

**10.0 SUBMISSION OF HARD COPIES OF DOCUMENTS, IF REQUIRED**

The Bidders needs to submit all the documents through online submission. However, the required documents should be submitted in Hard copies after online submission, if demanded from TNPL.

**11.0 E – TENDER AND E- REVERSE AUCTION**

- 11.1 In e-tender, price Bids received from Technically Qualified Bidders only will be opened, electronically. The opening price for the e – auction will be either the lowest price obtained in the price bid or the opening price fixed by TNPL. Technically Qualified Bidders only will be allowed to participate in the E- Reverse auction process.
- 11.2 After opening of the Price Bid, the Bidders who shall become eligible to participate in the Reverse Auction as per the conditions stated in this Document, known as the Qualified Bidders, will be intimated about their qualification through notification on the <https://tntenders.gov.in/nicgep/app> website within their secured login as well as a system generated email. It shall be the sole responsibility of the Bidder to regularly check the <https://tntenders.gov.in/nicgep/app> website and log in to see whether they have qualified or not. TNPL will not be responsible for non-receipt of email by the Bidder and its consequences.
- 11.3 E-Bidding is the process of inviting final price offers from the Qualified Bidders through internet for the purpose of determination of the lowest Bidder (i.e the Bidder who submits the lowest price Bid in the Reverse Auction).



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- 11.4 The Qualified Bidder will remain anonymous to other Qualified Bidders participating in the electronic Bidding process. The Qualified Bidder will be able to see the prevailing lowest price Bid, but the name of the current L1 Bidder at any point of time will not be displayed. The Qualified Bidder shall have to put his price Bid below the displayed current L1 Bid by decrement as specified in above point, to become the L1 Bidder. The lowest price obtained after completion of the Reverse Auction Process, shall be the Closing Price and the bidder quoting the same will be considered as the L1 bidder.
- 11.5 The electronic Bidding process for E-reverse auction will have a scheduled start and close time which will be displayed on screen. A Qualified Bidder will be able to put his price Bid after the start of Bid time and till the close time of electronic Bidding. The current server time (IST) will also be displayed on the screen. In the event a Bid is received during the last 10 (ten) minutes before the scheduled close time of electronic Bidding the close time of electronic Bidding will be automatically extended by 10 (ten) minutes from the last received Bid time to give equal opportunity to all other Qualified Bidders. This process of auto extension will continue till there is a period of 10 (ten) minutes during which no price Bids are received.
- 11.6 During the tender process for electronic Bidding the Bidder shall be required to sign their Bids with their respective digital signature certificate (DSC) which has been used to login. Any digital signature certificate other than the above shall not be acceptable for Bid submission by the system.
- 11.7 Bidders in their own interest are advised to get themselves acquainted with the electronic Reverse Auction process of (<https://tntenders.gov.in/nicgep/app>) by getting their Authorized Representative trained through demo electronic – Reverse Auction schedule at the link <https://demoetenders.tn.nic.in/nicgep/app>.

**12.0 ABOUT DIGITAL SIGNATURE CERTIFICATE:**

- 12.1 A Bidder shall be required to possess a valid Digital Signature Certificate (DSC) of signing type to be able to submit its Bid and to participate in the electronic Reverse Auction on <https://tntenders.gov.in/nicgep/app> website. For this purpose, Bidders shall be required to authorize its Authorized Signatory to procure a Class III DSC of signing type from any Certifying Authority or their authorized agencies in India.
- 12.2 The Bidder may note that only one user id will be mapped with a given DSC for the Authorized Representative. DSC once mapped with a particular user id of a Bidder will normally not be changed and therefore Bidders are advised to carefully select the DSC before forwarding the same to NIC for mapping.
- 12.3 The Digital Signature Certificate will be used to digitally sign the Bids that the Bidder will submit online.
- 12.4 It will be the sole responsibility of the Bidder and its respective Authorized Representative to maintain the secrecy of the password for the Digital Signature Certificate. The Bidder and its contact person shall be solely responsible for any misuse of the DSC and no complain / representation in this regard shall be entertained at any stage by TNPL

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**TENDER NO:232413006707****[7]****13.0 TERMS AND CONDITIONS FOR E-REVERSE AUCTION:**

- 13.1 After completion of the online E-Reverse Auction, the lowest price shall be available for further processing.
- 13.2 If no Bid or single Bid is received in the Bidding system/website within the specified time duration of the online E-Reverse Auction then TNPL may scrap the online Reverse Auction process and may proceed with the lowest Price Bid received through e-tendering for further processing.
- 13.3 Only those Bidders whose offers are found to be technically and commercially Responsive, shall be eligible to participate in E-Reverse Auction process.
- 13.4 Online Reverse Auction shall be conducted by TNPL on a pre-specified date and time, while the Bidders shall be quoting from their own offices/place of their choice. Internet connectivity shall have to be ensured by Bidders themselves.
- 13.5 To ward-off contingent situation, Bidders are requested to make all the necessary arrangements/alternatives whatever required so that they are able to circumvent such situation and still be able to participate in the Reverse Auction successfully. Failure of power or loss of connectivity at the premises of Bidders during the Reverse Auction cannot be the cause for not participating in the Reverse Auction. TNPL shall not be responsible for such eventualities.
- 13.6 Bidders are advised to get fully trained and clear all their doubts such as refreshing of Screen, tender value being Bid, Bidding rules etc.
- 13.7 Upon receipt of the system report after completion of the Online Reverse Auction Closing Price will be considered for further processing. TNPL's decision on award of contract shall be final and binding on all the Bidders.
- 13.8 TNPL reserves the right to cancel/reschedule/extend the Reverse Auction process/tender at any time, before ordering, without assigning any reason.
- 13.9 TNPL shall not have any liability to Bidders for any interruption or delay in access to the site irrespective of the cause. In such cases, the decision of TNPL shall be binding on the Bidders.
- 13.10 Other terms and conditions shall be as per TNPL's Bidding documents and other correspondences, if any, till date.
- 13.11 Bidders are required to submit their acceptance to the stipulated terms and conditions before participating in the Reverse Auction
- 13.12 For the Reverse Auction technically and commercially acceptable Bidders only shall be eligible to participate.
- 13.13 Bidders shall ensure online submission of their 'Bid Price' within the Bidding Period.
- 13.14 Rules for Reverse Auction like event date, time, Bid decrement, extension etc. shall be as per the business rules, enumerated above, for compliance.
- 13.15 If the Bidder or any of his representatives are found to be involved in Price manipulation/ cartel formation of any kind, directly or indirectly by communicating with other Bidders, action as per extant TNPL guidelines, shall be initiated by TNPL.



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- 13.16 The Bidder shall not divulge either his Bids or any other exclusive details of TNPL to any other Bidder.
- 13.17 Period of validity of Prices received through Reverse Auction shall be same as that of the period of validity of Bids offered.
- 13.18 Bidders may note that, although extension time is 10 minutes, there is a time lag between the actual placing the Bid on the local computer of the Bidder and the refreshing of the data on to the server for the visibility to the TNPL. Considering the processing time for data exchange and the possible network congestion, Bidders must avoid the last minute hosting of the Price Bid.
- 13.19 Participating Bidder will agree to non-disclosure of trade information regarding the purchase, identity of TNPL, Bid process, Bid technology, Bid documentation and Bid details.
- 13.20 It is brought to the attention of the Bidders that the Bid event will lead to the closing price only.
- 13.21 Technical and other non-commercial queries (not impacting price) can only be routed to the TNPL contact personnel indicated in the Bidding documents.
- 13.22 Order finalization and post order activities would be transacted directly between Successful Bidder and TNPL.
- 13.23 Order shall be placed outside the e-portal & further processing of the order shall also be outside the system.
- 13.24 In case of any problem faced by the Bidder during Reverse Auction and for all Bidding process related queries, Bidders are advised to contact the persons indicated in the Bid document.
- 13.25 TNPL will not be responsible for any PC configuration/Java related issues, software/hardware related issues, telephone line glitches and breakdown/slow speed in internet connection of PC at Bidder's end.
- 13.26 Bidders may note that it may not be possible to extend any help, during Reverse Auction, over phone or in person in relation to rectification of PC/Internet/Java related issues and Bidder may lose the chance of participation in the Bidding.
- 13.27 For access to the Bidding site, the following URL is to be used:  
<https://tntenders.gov.in/nicgep/app>.
- For user guidance please follow the manual which is there in the website.
- 13.28 No queries shall be entertained while e-Reverse Auction is in progress.
- 13.29 In case user ID is locked, you are requested to call helpdesk at  
(<https://tntenders.gov.in/nicgep/app>)

14.0 The tenderers are requested to go through the General terms and Conditions of the Tender, Terms and Conditions for e-reverse Auction and Process Compliance Statement carefully and attach the signed Process Compliance Statement along with the Techno-Commercial Bid in NIC's e-procurement portal <https://tntenders.gov.in/nicgep/app>. All bids shall be prepared and submitted in accordance with the given instructions. The tenderer shall examine all instructions, forms, terms and conditions detailed in the specification and Annexure and submit the rates and other particulars called for in this specification, as per the instructions and formats enclosed herewith.

**TENDER No: 232413006707****ANNEXURE – II – Qualifying factors of the tender**

1	<p>The bidder must be an Original Equipment Manufacturer (OEM) having designed, manufactured, tested and successfully supplied distribution transformers of at least 75 Nos of rating from 2 to 4 MVA in the past five (5) financial years (Apr 2017 – Mar 2023), which are in successful operation.</p> <p>The bidder shall provide the documentary evidence for meeting the above without fail along with Technical bid</p>
2	<p>Tenderer should be agreeable to supply the Distribution Transformer Strictly as per the Specification, Scope of supply, Scope of Service and Equipment Specification given in the annexure-III Technical specification of the tender.</p>
3	<p>Tenderer should agree for "Performance Guarantee for supply of Equipment" as per Clause no:09 of Technical Specification of the tender.</p>
4	<p>Tenderer should agree for "Warranty Clause" as per Clause no:11 of Technical Specification of the Tender.</p>
5	<p>Tenderer should agree to produce "Technical Information" as requested in Clause no:12 &amp; 13 of Technical Specification of the Tender.</p>
6	<p>Tenderer should agree for the "Delivery Terms" as per Clause no:14 of Technical Specification of the tender.</p>
7	<p>Tenderer should agree to provide "GUARANTEED TECHNICAL PARTICULARS" as per Clause no:15 of Technical Specification of the tender.</p>
8	<p>The bidder should agree for the Payment Term &amp; LD Clause as per Clause No:04 &amp; 07 of General Terms and Conditions respectively of the Tender.</p>
9	<p>Submission of Tender fee and EMD separately as per Tender.</p>
10	<p>Acceptance of price validity clause no:01 of General Terms and Conditions of the tender.</p>

**Note:**

**Tenderers who do not comply with the above conditions will not be qualified in the tender for Price Bid & Reverse Auction stage.**

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**TECHNICAL SPECIFICATIONS AND SCOPE OF SUPPLY****PROCUREMENT OF 11/0.433KV, 2 MVA, THYRISTOR DUTY, DYN11 DISTRIBUTION TRANSFORMER WITH ACCESSORIES****1.0 Scope of BID****1.1 SCOPE OF SUPPLY**

The scope of supply shall include the following capacity of transformer.

2 MVA, 11kV/433V, 3 ph, 50 Hz, Dyn11, thyristor duty – 1 no.

The scope of supply shall include the preparation and submission of all design details, drawings, technical information, operating and maintenance instructions, test certificates, recommended quantities of consumables and spares.

The proposed transformer size shall suit the site conditions for one of one replacement. It is planned to place the new transformer on the existing transformer bed without any civil and Bus duct modifications. The transformer secondary terminal box should match with existing bus duct flange. Bidders must visit the site and consider the dimensions of existing foundation, Rail and HT bushing for the proposed transformer. By visiting the site, bidders to assess the site requirements and accordingly propose the transformer general arrangement layout. The existing transformer foundation drawing is not available.

**1.2 SCOPE OF SERVICES**

Bidder shall depute a Commissioning Engineer for supervision of erection and commissioning of the distribution transformers and auxiliaries, apart from carrying out all the required tests.

**1.3 EXCLUSIONS**

Civil works, foundation and buildings

Bus duct, cables for connection at either end of the terminal.

**1.4 MISCELLANEOUS ITEMS**

The scope of supply shall include the preparation and submission of all design details, drawings, technical information, operating and maintenance instructions, test certificates. The various items to be supplied are listed in the enclosed price schedule. Prices shall be furnished separately for each item as specified in this Bid Document.

The Equipment shall be designed and manufactured in full accordance with relevant codes and regulations and shall be capable of safe and continuous operation under all conditions without strain, vibration and other operational difficulties. The Equipment shall be suitable for operation under hot and humid tropical conditions.

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**[2]**

**2.0 MATERIAL OF CONSTRUCTION**

Material of construction selected by Bidder for the Equipment and its auxiliaries shall conform to basic requirements such as durability, compatibility, corrosion resistance with process and service conditions and shall be equal or superior to the minimum specifications indicated.

**3.0 DESIGN CRITERIA / SPECIFIC REQUIREMENTS**

Distribution transformers, shall be outdoor, oil filled, conservator type conforming to the following design requirements.

All items of equipment covered by these specifications shall complete with all accessories and devices, which are essential for trouble free operation of Equipment.

Sl. No.	Description	Unit	Distribution Transformer
			Thyristor Duty (2 MVA)
1	Capacity	MVA	2
2	Quantity	Nos.	1
3	Cooling arrangement		ONAN
4	No. of Phase		3
5	Type		Double Wound (Copper)
6	Nominal Voltage Ratio	kV	11/0.433
7	Frequency	Hz	50
8	Impedance		7%. No negative tolerance
9	Vector Group		Dyn11
10	Primary supply		11kV±10%, 50Hz±5%, 3 Ph, 3 wire, symmetrical fault level of 40kA for 1 sec.
11	Secondary Supply		415V±10%, 50Hz±5%, solidly earthed system
12	Rated Insulation Level		
	- HV Side	kVp	75
	- LV Side	kVp	2.5
13	Power frequency voltage withstand for 1 min. in primary		28kV
14	Site ambient temperature	°C	50
15	Site environment		Dusty chemically laden corrosive
16	Design ambient temperature	°C	50
17	Design Life		Atleast 30 years
18	Periodic maintenance interval		Greater than 4 years

Sl. No.	Description	Unit	Distribution Transformer
			Thyristor Duty (2 MVA)
19	Max permissible temp		55°/50°C over 50°C (ambient) – rise for winding / oil
20	Radiator		Detachable with shut off valves
21	Terminal arrangement for primary disconnecting chamber type cable box suitable for		Disconnecting type cable box chamber, suitable for 1 run of 3 core 300 sq.mm Al. 11/11kV (UE) XLPE cable
22	Termination arrangement for secondary		LV bus duct flange box (also with neutral) suitable for vertical take off
23	Termination arrangement for Secondary neutral		Separate 5th Neutral bushing externally on side of LV side bus duct Canopy flange box suitable for 2R x 75 x 10 Cu. Strip
24	Taps on HV		± 5% insteps of 2.5% off circuit tap changing switch
25	CT Requirements on (CTs on neutral bushing inside transformer tank)		-
	- 415V neutral		One (1) CT – 3200/1A Class PS, VK > 24.84 (Rct+0.887) for REF Protection
			One (1) CT – 100/1A Class 5P20, 15VA for stand by E/F Protection
26	Painting		RAL7035 (Light Grey)

- All distribution transformers (thyristor duty) shall be suitable for harmonic current loading due to operation of VFD drives by the use of 3 phase, full wave / 6 pulse / 12pulse / Thyristor / IGBT controlled drive panels to the tune of 80% of name plate rating.

**4.0 APPLICABLE ACTS, RULES AND REGULATIONS**

Equipment covered by these specifications shall be designed, manufactured and tested in accordance with relevant latest standards and codes of practice of Bureau of Indian Standards or equivalent International Standards like IEC listed below.

**Indian Standards**

- IS 335 Insulating Oil
- IS 1271 Electrical insulation classified by thermal stability
- IS 2026 Power Transformers / Thyristor Duty Transformers
- IS 2099 Bushings
- IS 2147 Degree of Protection
- IS 2705 Current Transformers
- IS 3637 Buchholz relay
- IS 3639 Power Transformer Accessories
- IS 6600 Guide for Loading of Oil Immersed Transformers
- IS 7404 (Pt.2) Rectangular Paper Covered Copper Conductors
- IS 8036 Mild Steel Transformer Cooling Tubes
- IS 8789 Performance Characteristics for Three Phase Induction Motors
- IS 10561 Application Guide for Power Transformers
- IS 1180 (Part1): 2014 Distribution Transformers (Energy Performance Standard).

**IEC Standards**

Equipment designed according to National Standards that are based upon the following IEC standards are also acceptable provided that the deviations (if any) are noted.

IEC 71 Co-ordination of insulation.

IEC 76 Power transformers.

IEC 185 Current transformers.

IEC 296 Specification for unused mineral insulating oils for transformers and switchgear.

IEC 354 Loading guide for oil immersed power transformers.



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IEC 445 Identification of equipment terminals and of terminations of certain designated conductors, including general rules for an alphanumeric system.

IEC 529 Degrees of protection provided by enclosures (IP Code).

IEC 551 Determination of transformer and reactor sound levels.

IEC 606 Application guides for power transformers.

IEC 616 Terminal and tapping markings for power transformers.

IEC 947 Low-voltage switchgear and control gear.

- 4.1 Where Indian Standards are not available for Equipment, then relevant Standards of International Electro-technical Commission shall apply. Equipment shall conform to latest Indian Electricity Rules with regard to safety, earthing and other provisions for installation and operation of electrical plants and shall satisfy the requirements of Chief Electrical Inspector to Government of Tamil Nadu.

**5.0 EQUIPMENT SPECIFICATIONS****5.1 GENERAL REQUIREMENTS**

- 5.1.1 Equipment shall be suitable for operation on the voltage, frequency and system as defined within these specifications and shall have the full load and short circuit capacities as specified, for the stated ambient conditions.
- 5.1.2 Equipment shall be designed having an enclosed construction to prevent entry of vermin, which may create electrical short circuits or malfunctioning.
- 5.1.3 Equipment shall be designed to approved safety requirements and have all necessary interlock devices to ensure correct and safe operation. Warning signs shall be fitted to all hazardous parts of the Equipment as required by Indian Regulations.
- 5.1.4 Equipment shall be designed for convenience of operation, inspection and maintenance and where possible parts shall be interchangeable with ease of replacement to minimise downtime.
- 5.1.5 Equipment shall comply with all the requirements called for in these specifications.
- 5.1.6 The bidder shall carryout the testing one transformer of each rating of supplied transformers at **3<sup>rd</sup> party / NABL accredited lab** for measurement of losses as quoted in their offer. If the measured losses of transformer exceed those guaranteed in guaranteed technical particulars by more than the allowable tolerance specified in IS, TNPL shall have the right to totally reject the unit / charged as per capitalisation loss as enclosed in the bid document.

The testing of losses of transformer in accredited lab shall be taken care by the Bidder.

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**5.2 CONSTRUCTION**

Transformers shall be designed, constructed and tested in accordance with IS 2026 – 1988 along with other relevant standards and as per latest amendments and shall be of 2-winding, 3 phase, oil immersed type, natural air cooled and / or force air cooled as specified, fitted with oil conservator, suitable for outdoor installation.

All outdoor apparatus, including bushing insulators and fittings, shall be so designed that water cannot collect at any point.

Transformers shall be capable of withstanding the thermal and mechanical impacts of short circuits at the terminals of any winding without adverse effect. The effect of direct sun rays shall be taken into account, while designing the transformers.

Transformers shall be designed and constructed for minimum noise, vibration and for minimum magnetising and copper losses compatible with the performance requirements.

All electrical connections and contacts must be of ample section for carrying the rated current without excessive heating.

All mechanisms shall be of suitable material to prevent rust or corrosion, compatible with the duty conditions.

2 MVA transformers shall be provided with silica gel breather with silica gel quantity of 2.5 kg each. Typical drawing LV bushing is to be arranged

**5.3 TAP CHANGER**

Fully rated tappings shall be provided on the primary voltage winding for a variation of the no-load primary voltage of plus 5% to minus 5% in steps of 2.5%.

Constant kVA tappings shall be provided on the primary high voltage winding. The tap changer shall be externally operated for (off circuit) off-load operation. Tap changing shall be implemented by means of a manually operated external self positioning rotary selector switch complete with tap position pointer and facilities for padlocking the switch hand wheel operable from ground level in any position. Tap position shall correspond to the maximum plus tapping.

**5.4 CORE CONSTRUCTION**

Transformer core shall be of the three limb type construction with a full section yoke.

The core shall be of boltless construction, i.e., the complete magnetic circuit free from bolt holes.

The core and yoke shall be manufactured from cold rolled grain oriented high grade low loss electrical sheet steel. The sheet steel shall be annealed after stamping and assembled so that the laminations are magnetized in the original direction of rolling.

The double sided phosphate film applied for inter-laminar insulation shall not deteriorate under pressure or from immersion under oil. The core and yoke shall be designed and constructed with metered lamination joints cut at an angle of approximately 45° and overlapping by approximately 50 mm. The flux density at any point in the magnetic circuit shall not exceed 1.6 tesla when the transformer is operated on the principal tap at the nominal voltage and frequency on full load.

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As a precaution against circulating currents, particular attention shall be paid to the insulated and bonded joints in the clamping structure. Accessible removable core/clamp and clamp/tank earth links shall be provided. Particular care shall be taken to avoid undue iron loss or noise due to cross-fluxing.

Cooling ducts parallel to the plane of the laminations shall be provided as necessary to keep the maximum internal temperature at any point in the core within acceptable limits above the oil temperature. If necessary, oil direction ducting shall be incorporated into the bottom core clamping structure.

The core limbs shall be permanently clamped by a number of non-agings, oil resistant epoxy resin impregnated glass fiber circumferential bands; the number, width and spacing shall suit the size of the core.

The core and coil clamping arrangement shall be amply strong to withstand, without damage, the mechanical shocks and forces due to the maximum system short circuit levels specified in IS 2026 / IEC Publication 76 and mechanical asymmetry of the windings.

Coil assembly shall be suitably supported between adjacent sections by insulating spacers and barriers.

Bracing and other insulation used in assembly of the winding shall be arranged to ensure a free circulation of the oil to reduce the possibility of hot spots in the winding.

Construction in general shall be robust and capable of withstanding, without damage, the shocks and vibrations likely to be encountered during transportation and there must be no relative movement between the core structure and the tank.

The transformer shall be provided with flat bi-directional roller wheels.

Adequate lifting facilities shall be provided for withdrawing the core and winding assembly from the tank, the mass to be evenly distributed between the top and bottom clamps via tie rods.

Core assembly shall be electrically connected to the transformer tank for effective core earthing.

**5.5 WINDING**

The winding conductors and connections shall be of annealed copper. The insulation of the windings and connections shall not soften, shrink or become brittle during service and it shall not contain any impregnating material, which is likely to leach.

All windings shall be uniformly insulated as defined in IS 2026/IEC 76-3. Particular attention shall be paid to the insulation of the end turns and tapping points. Softwood shall not be used as an insulation material.

Windings shall be pre-shrunk and no further shrinkage must occur after final assembly and clamping.

Tappings shall be arranged in such a way that the electromechanical balance of the transformer is maintained at all voltage ratios. The tapping points shall be preferably in the middle of the windings.

The rated insulation levels for the primary and secondary windings and connected parts shall be in accordance with IS 2026/IEC 76-3 table II.

The windings and all connections shall be firmly braced to withstand, without damage, the electro-magnetic forces and thermal effects applicable to the maximum system short circuit levels and durations specified in IEC Publication 76 & IS 2026 and the shocks and vibrations likely to be encountered during transportation. For the voltage level, the maximum system short circuit level shall be considered.

The Distribution transformers (the ones specifically specified for feeding the VFD drives) shall be suitable for harmonic current loading due to operation of VFD drives by the use of 3 phase, full wave thyristor / IGBT controlled drive panels to the tune of 80% of name plate rating. (In addition these thyristor duty transformers shall be provided with static current shielding).

Spacers for winding sections or disc coils shall be such that equal pressure is applied to all columns of spacers.

All bare copper connections under oil shall be tinned or coated with an impervious material to minimize catalytic action.

Current density shall not be more than the following:

- HV winding 350 A/cm<sup>2</sup>
- LV winding 350 A/cm<sup>2</sup>

## **5.6 TANK CONSTRUCTION**

Each transformer shall be enclosed in a suitably stiffened welded steel oil tight tank suitable for outdoor installation. The thickness and bracing of the tank shall be such that the tank together with core and coils can be lifted and transported without damage or loss of oil tightness. The thickness of the tank/radiator tubes shall not be less than the following:

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Sl. No.	Thickness of	2 MVA Tr.
1	Side	6 mm
2	Cover	10 mm
3	Radiator Tube	1.2 mm
4	Bottom	8 mm

The transformer tank shall be capable of withstanding, without deflection, twice the maximum operating pressure (positive and negative) and the vacuum required by the recommended drying out procedure.

Tank under base shall be fitted with bi-directional flat rollers for moving the transformer in different directions complete with locking devices against rollers' movement.

The tanks shall be so designed that with the cores and windings in position there shall be no possibility of air or gas being trapped while filling the tank with oil and so that water shall not be trapped on the exterior of the tank.

Pressure Vacuum withstand capability for tank shall be 500 mm of Hg & 68.0 KN/m<sup>2</sup>.

Lifting lugs of ample dimensions shall be fitted to the tank so that standard lifting shackles can be readily attached. Dependent on the mass, four jacking-up positions shall be provided. Facilities shall be provided on the tank base for the attachment of sling shackles to enable the transformer to be hauled and slewed in any direction during installation.

Fasteners shall be galvanised, Zinc passivated or stainless steel.

Tank covers shall be provided with individual lifting eye-bolts to suit the mass. Inspection openings of ample size shall be provided in the tank cover to permit easy access to connections, links and bushings, etc.

Inspection opening shall be elevated type flanges with bolts and welded nut fasteners (stud are not acceptable) to avoid water entering.

Bidder shall state specifically the weight of active material (core and windings), quantity of oil in main tank. Bidder shall confirm the conservator volume of oil (cold oil) which shall be 10% of main oil tank for each transformer.

## 5.7 TANK FITTINGS

Each transformer shall be equipped with the following features:

Oil conservator tank with sump, captive topping up filler cap and lockable drain valve, and one removable flanged end for cleaning purposes mounted above the highest point of the oil circulation system. One end of the conservator tank shall be fixed by bolts so that it can be removed to enable the tank to be cleaned. The capacity of the conservator tank shall be adequate to accommodate the expansion and contraction of oil in the whole system over the extreme possible ranges of operation.

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- A prismatic type oil level gauge shall be fitted at one end of the conservator tank and shall be clearly readable from ground level. The oil level indicator shall be marked to indicate the correct oil level with the oil at the temperature of 15°C, 50°C and 90°C. The conservator tank shall also be equipped with a Low oil level alarm initiating device, of magnetic type, wired out and connected to the terminal blocks in the transformer marshalling cubicle.
  - A dehydrating breather of the oil sealed silica-gel type, with inspection window and oil seal, mounting height 1.6m from ground level & connected in conservator.
  - Closed type thermometer pockets with captive screwed caps.
  - PRD (pressure relief device) fitted at the exposed end and transformer cover end which shall be resetting, without the use of expandable parts. The valve, and all parts thereof, shall have a life comparable to that of the transformer. Alarm contacts shall be provided on the valve. The alarm contacts shall be wired out and connected to the terminal blocks in the transformer marshalling cubicle. Only PRD's are acceptable. Explosion vents are not acceptable.
  - an approved earthquake and vibration proof gas and oil actuated relay of Buchholz type with normally open alarm (incipient fault) and trip (sudden surge fault) contacts with facilities for gas sample testing. The alarm and trip contacts shall be wired out and connected to the terminal blocks in the transformer marshalling cubicle. The relay shall be mounted with an adequate mounting angle to prevent any maloperation during service conditions
- The Buchholz relay shall be double float type
- A digital type temperature indicating thermometer calibrated in degrees centigrade, having adjustable alarm and trip contacts, to measure the top oil temperature. The device shall be complete with the necessary capillary tubing. The alarm contacts shall be initially set for 90°C, and the trip contacts for 97°C.
  - The transformer shall additionally be equipped with a winding temperature indicator of range having adjustable alarm and trip contacts of approved design and with the following features:
    - The indicator shall be of digital type and calibrated in degrees centigrade and fitted with a hand rest pointer to register the highest temperature attained.
    - The winding temperature indicator shall be energised from a bushing current transformer connected to a heater coil and actuating on to a bulb and capillary tube.
    - Terminals and links shall be provided in the marshalling cubicle for checking the output of the current transformer on load and disconnecting the current transformer on load.
    - A test winding shall be incorporated in the current transformer and the connection brought out to suitable terminals in the marshalling cubicle to enable the operation of the instrument to be checked electrically.

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- Inside the lid of the marshalling cubicle, calibration curves shall be fitted to adjust the relay before putting it into service.
  - Both OTI & WTI shall be digital type with RS485 serial communication necessary communication support to be provided by bidders.
- Air vent, a lockable oil drain valve with stopper plug and integral oil sampling cock. In addition, one valve in the oil actuated relay connection, mounted between the relay and conservator tank.
  - Two bolted type earthing terminals capable of carrying the rated short circuit current shall be provided close to the base of the tank structure on diagonally opposite corners.
  - Transformer oil sampling valve (15 mm) with end cap and pad lock arrangement should be provided at the top and bottom of the tank.
  - The above valves to be fixed in the tank with easy approach of taking oil samples.
  - Bottom oil drain valve to be provided with suitable standard flange, end cap and pad lock arrangement.
  - The terminals shall be designed to carry this current, without damage, for a duration at least equal to the short circuit period for which the windings are designed.

## **5.8 RADIATORS**

**Cooling tubes and radiators shall be hot dipped galvanised before flood painting and designed so that all surfaces can be thoroughly cleaned by hand and subsequently painted in-situ if necessary by suitable brushes and sprays.**

Cooling tubes and radiators shall be so designed as to avoid pockets in which moisture may collect and shall withstand the pressure tests appropriate to the tanks to which they are fitted or connected.

- Radiators connected to the tank shall be detachable and shall be provided with machined or ground flanged inlet and outlet branches. Valves shall be provided on the tank at each connection. Plugs shall be installed at the top and bottom of each radiator for drainage, filling and air release.
- Each radiator shall be fitted with suitable lifting eyes.
- The thickness of radiators for the transformer shall be 1.2mm (minimum).
- The pressure test reports carried out at the sub-vendor's place for the radiators shall also be submitted during the inspection.
- Special packing for the radiators shall be considered (like packing done for export orders) to avoid transportation and handling damages.

## **5.9 TERMINAL ARRANGEMENT, CABLE CONNECTION AND BUSDUCT**

11 kV terminals shall be brought out through bushings to an air insulated chamber, which shall be suitable to receive 11 kV (UE) XLPE cables of specified number and size. Both Primary and secondary terminal shall be brought out through bushing to an air insulated chamber.



The cable box shall be disconnecting chamber type and shall be suitable for accepting mechanical compression weather proof glands and forming a dust and water-tight construction. Necessary phase segregation barriers shall be provided. Provision shall be made for top or bottom cable entry.

LV terminal box of the 415V transformer shall be suitable for receiving bus duct from top side. Vertical face other than the flange shall be detachable for inspecting the terminals after the bus duct is connected.

Neutral connection for the secondary windings shall also be provided in the same terminating chamber as the phase connections, having a current carrying capacity equal to the phase rating, and solidly connected to the winding star point. An additional neutral terminal shall be provided externally for purpose of grounding.

Neutral CT of 2MVA Transformer shall be 3200 / 1A, CLASS : PS for REF protection

Star point of the secondary windings shall be brought out through a separate neutral bushing for connecting the system to earth. Transformer neutral bushing shall be epoxy type.

The transformer shall be provided with neutral side CTs as given in Clause 4 – Design criteria.

Whenever bushing CTs are called for, secondary leads, including tappings, shall be brought to a weatherproof terminal box near the bushing. Bushing C.T. nameplate shall be mounted on the tank adjacent to the terminal box.

For LV terminal connections two numbers of bushing should be provided for each phase and neutral for bus duct flexible connection. Typical drawing for HV & LV bushing arrangements is enclosed.

### **5.10 MARSHALLING CUBICLE**

Each transformer shall be provided with an outdoor sheet steel marshalling cubicle. The marshalling box shall be tank mounted, outdoor, weather-proof, sheet-steel (2 mm thick), vermin proof and weather protected (IP55) marshalling cubicle. All doors, covers and plates shall be fitted with neoprene gaskets. Bottom shall be at least 750 mm from floor level and provided with gland plate and cable glands as required. Top surface shall be fitted with canopy.

Marshalling cubicle door shall have means for latching and padlocking in the close position.

Thermostatically controlled anti-condensation heater shall be fitted inside the cubicle enclosure with an "On/Off" isolating switch mounted outside of the cubicle.

The marshalling cubicle shall accommodate the following equipment:

Top oil and winding temperature indicators with provision for associated capillary tube entries and window on the cubicle door. Test links for winding temperature indicator circuit (where applicable).



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- Terminal blocks and removable gland plates for all incoming cables. Terminals shall be of stud type with at least 20% spare terminals for the future use.
- One single phase 230 V, 16 A, 3-pin switch socket outlet with plug to be installed inside of the cubicle.
- One 230V LED cubicle lamp with door switch and MCB protection shall be provided for marshalling box.

Bidder shall provide a marshalling box and marshall to it all the contacts/terminals of electrical devices mounted on the transformer. It shall be in the Bidder's scope to provide:

- a) the interconnection cabling between the marshalling box and the accessory devices XLPE insulated armoured cable and
- b) necessary double compression type, brass cable glands at the marshalling box for the above mentioned cables as well as for terminating the PURCHASER'S incoming cables from remote panels.

All contacts for alarm, trip and indication, CT leads of the circuits shall each be electrically free, wired for auxiliary D.C. supply as specified and brought out to separate terminals at the terminal blocks in the marshalling-box. Terminals shall be rated for 10A. Wiring shall be with stranded, copper conductors of sizes not smaller than 1.5 sq.mm for control and 2.5 mm for C.T. circuits. C.T. terminals shall be provided with shorting facility with shrouded type polyamide connectors.

### **5.11 DIAGRAM AND RATING PLATES**

Diagram and rating plates made of stainless steel shall be fitted to the transformer tank in accordance with IEC 76-1/IS 2026 and marked with at least the following information:

- measured percentage impedance
- measured percentage zero sequence impedance
- rating in KVA
- winding temperature rise by resistance
- oil temperature rise by thermometer
- no-load voltage for each tap position
- HV and LV current at maximum, minimum and normal tapings
- No. of phases
- frequency
- neutral point current transformer specification

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- diagram
- vector group reference
- weight of core and windings
- total quantity of oil in liters
- total service weight in kilograms
- Transformer' s serial number
- year of manufacture
- Bidder's name and address.

**5.12 INSULATING OIL**

The transformers shall be supplied with a first filling of insulating oil. Preferably, dry inert gas shall be used in the expansion space. Bidder shall supply additional quantities of insulating oil in standard 205 litre barrels required for filling of conservator tank and radiators at site. Apart from first filling oil, 10% extra oil shall be supplied in non-returnable drums.

Prior to filling with oil, transformer tank shall be thoroughly degreased, cleaned and dried.

The insulating oil shall comply with the requirements of IEC 296/ IS 335-1972 with latest amendment and shall be sample tested, prior to filling, for electrical strength, moisture and acidity as described in the above standard.

**5.13 SURFACE TREATMENT AND FINISH**

After de-scaling and removal of rust by shot blasting and cleaning down, all external metallic surfaces of the transformers to be immediately given one coat of oil and heat resistant zinc chromate/red oxide primer with an oil modified alkyd resin base incorporating a rust inhibitor.

Two finishing coats of contrasting colour, the final coat being a durable high gloss oil and weather resistant paint, shade RAL 7035. All paints shall be preferably applied by the flood method.

The internal metallic surfaces of the transformers including the conservator, underside of the tank cover, disconnecting link chambers, cable boxes, etc., shall be similarly treated by shot blasting prior to painting. After shot blasting and cleaning down, one coat of primer shall be applied followed by a finishing coat of hard setting, air drying paint. The type of paint shall be impervious and shall have no deleterious affect on the filling medium.

The make of components shall be referred in refer **Annex 2.**

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**[15]**

**5.14 NOISE**

The transformer shall be free from annoying hum or vibration. The design shall be such as not to cause any undesirable interference with radio or communication circuits. The audible sound level measured at 300 mm from external surface of transformer shall not exceed 74 db.

**5.15 PACKING**

Equipment shall be dispatched to site packed in wooden crates wherever applicable. It shall be wrapped in polyethylene sheets before putting in crates and it shall be ensured that damage to the equipment does not occur during handling / transportation.

Special packing for the radiators shall be considered (like packing done for export orders) to avoid transportation and handling damages.

**5.16 CAPITALISATION OF LOSSES AND PERFORMANCE GUARANTEE DETAILS**

The losses of all transformers shall be guaranteed in the technical Document. The manufacturer shall state separately no load and load losses at rated frequency, voltage and load losses corresponding to ONAN rating (at full load at 75°C). For a fair comparison of different suppliers, it is essential that bidders to quote firm losses. The transformer losses shall not be more than the below mentioned figures with no positive tolerance.

<b>Transformer Rating</b>	<b>2 MVA</b>
<b>Impedance</b>	<b>Z=7% with no negative tolerance</b>
No-load and load losses (kW)	As per 1180 level II for normal duty
For thyristor duty transformer	
No load loss + 100% Full load losses (kW)	11.65

For the purpose of arriving at comparable prices, for thyristor duty transformer, no load and load losses at normal tap shall be capitalized as per formula given below.

**Formula for capitalisation (During Bid stages) (Refer Annex 1 for worksheet on capitalisation losses).**

$$\text{Capitalised cost of transformer} = IC + 101000 Wc + 247500 Wi$$

Where IC = Initial cost

Wi = Iron (No load) loss in kW

Wc = Copper (load) loss in kW

In the event of order on a Bidder, losses shall be measured during routine testing. Penalty for shortfall in performance shall be levied at the following rates:

Any variation in kW losses during testing from the committed values shall be charged as follows:

- Capitalised cost of annual load losses / KW = Rs.1,01,000/ kW variation
- Capitalised cost of annual no load losses / KW = Rs.2,50,000/ kW variation

The actual payment will be made after deducting at the above rates for the above said losses.

**TENDER NO:232413006707****[16]****5.17 TESTING**

5.17.1 Routine tests shall be performed in each transformer in accordance with IS 2026 - 1988. Routine tests shall include, but not limited to:

- Measurement of winding resistance
- Voltage ratio, polarity and phase check
- Measurement of impedance voltage, short-circuit impedance and load loss
- Measurement of no-load loss and current
- Di-electric test
- Induced over voltage test
- Separate source voltage withstand
- Measurement of zero sequence impedance for LV winding
- Oil leakage test – 12 hours.
- Magnetic balance test.

5.17.2 Evidence shall be provided in the form of certificate for having performed the type tests of same capacity as specified in the Bid document shall be provided for the following by Bidder. Offers without these documents will not be considered and offer will be rejected.

- Temperature-rise test
- Impulse voltage withstand
- Short-circuit withstand
- Pressure Test

**5.18 CONSUMABLES AND OPERATING SUPPLIES**

All consumable materials, e.g., lubricants, insulating oil etc., required for installation and commissioning shall be included in the scope of supply.

**6.0 TERMINAL POINTS**

Outlet of 11kV cable box & 415 V bus duct flange box for 2 MVA transformer

**TENDER NO:232413006707****[17]****7.0 ERECTION AND COMMISSIONING**

Installation of the Equipment and all inter-connecting cabling, bus duct, grounding etc., shall be carried out by TNPL.

**8.0 INSPECTION AND TESTING**

All necessary routine factory tests shall be performed by Bidder on Equipment to demonstrate the satisfactory performance of Equipment to the relevant standards and specifications.

Bidder shall specify a complete list of tests to be performed at the works and on site. These shall include any tests required for procurement of statutory test certificates from the Indian Government Authorities.

Test Certificates shall be provided for all tests performed, whether or not witnessed by TNPL or his representative. Six copies of the certificates shall be supplied to TNPL on satisfactory completion of the tests.

TNPL or his authorised representative reserves the right to inspect or expedite any item of equipment at the works of the manufacturer or his sub-Bidder at any stage during the course of manufacture, assembly or testing. Any such inspection will not absolve Bidder of his obligations under the Contract or reduce any of his obligations.

**9.0 PERFORMANCE GUARANTEE FOR SUPPLY OF EQUIPMENT**

Bidder shall furnish a performance guarantee for Equipment supplied as per Clause 10.1 hereof. Such guarantee will cover the following parameters:

**9.1 PERFORMANCE GUARANTEE PARAMETERS**

The transformer shall give its rated capacity.

- Temperature-rise test
- When operated under the specified primary voltage and frequency and maintain the specified secondary voltage in respect of each transformer.
- Transformer efficiency shall be within the values stated by the Bidder.
- No-load losses shall be within the values stated by the Bidder.
- Load losses shall be within the values stated by the Bidder.
- Temperature rise for winding, measured by resistance method shall not exceed 55°C.
- Load losses shall be within the values stated by the Bidder.
- Temperature rise for top oil, measured by thermometer, shall not exceed 50°C.

**TENDER NO:232413006707****[18]****9.2 TOLERANCE FOR TESTING**

The tolerance for guarantee and acceptance shall be as follows:

Voltage ratio at no load on the principal tapping +0.5% of the declared ratio or a percentage of the declared ratio equal to 1/10 of the actual percentage impedance voltage at rated current, whichever is smaller.

Load losses	Nil
No-load losses	Nil
Impedance voltage	±10% for two winding transformers on principal tapping

Temperature rise limits for oil and winding shall be as specified in IS 2026-1988 with amendment upto date over an ambient air temperature of 45°C.

**10.0 RIGHT TO REJECT**

If due to any reason Equipment fails to deliver the rated performance, TNPL reserves the right to reject Equipment without prejudice to any other conditions in the Bid and opt for new Equipment of same rating and design or accept the transformer with penalty clause as mentioned in clause 6.3 above.

**11.0 WARRANTY**

Bidder shall provide bank guarantee to cover the warranty covering the rectification of any and all defects in design, materials and workmanship of equipment for a period of twelve (12) months from the date of commissioning or twenty four (24) months from the date of supply whichever is later. During the period of warranty, Bidder shall fulfill all the warranty clauses.

**12.0 INFORMATION TO BE PROVIDED ALONG WITH THE OFFER**

Bidder shall provide all the information called for within the different sections of these specifications. Failure to provide complete details may result in rejection of the offer.

The offer shall include drawings showing general arrangements with approximate dimensions, foundation details with technical literature as supporting information on specific items.

The description of the Equipment offered shall specify important features to enable TNPL to obtain a comprehensive understanding of Equipment being offered.

All drawings and documents shall be in English language and all dimensions and weights shall be in metric units.

List of sub-Bidders of items proposed to be bought from outside shall be furnished.

Specification and material of construction should be listed for all major items of Equipment.

**TENDER NO:232413006707****[19]**

An outline program covering the period from commencement of Contract to normal operation showing the main data to finalise design, manufacture and shipping shall be furnished.

A clear exclusion list, which, when procured and provided by TNPL, will make the system complete and operational to meet the performance guarantees shall be furnished.

Reference list of Bidder indicating his previous supply of Equipment meeting the same specifications and of the same or higher capacity within the past ten (10) years that are in successful operation shall be furnished.

### **13.0 TECHNICAL INFORMATION TO BE PROVIDED ALONG WITH CONTRACT**

Bidder will be required to provide the following drawings and documents, as specified below:

- All Drawings and documents : 6 prints + 1 retrievable electronic format in CD, including operation and maintenance manuals
- Successful Bidder shall furnish the following drawings, documents and manuals and all information within the period as may be stipulated in the Contract:
- Necessary engineering drawings like layout, connection drawings, complete with terminal strip and ferrule numbering, cable box arrangement, marshalling box details etc.
- Detailed drawings showing foundation requirement with load details
- Detailed erection drawings and manuals
- Detailed planning network diagram within a month from the date of signing the Contract through manufacture, shipment.
  
- Inspection and test certificates for Equipment
- Specification/Data Sheets/Drawings for all items excluded from the Scope of Contract to arrange procurement by TNPL.
- Bidder shall provide all the information called for within the different sections of these specifications.

### **14.0 DELIVERY**

- Project implementation schedule calls for availability of Transformers not later than five (5) months from the date of notification of award of contract.
- In order to achieve the above target, Successful Bidder shall confirm the completion of FOT delivery within five (5) months from the date of notification of award of contract.

Contd...20



**15.0 GUARANTEED TECHNICAL PARTICULARS**

Bidder shall furnish the following information for 2MVA transformer offered for supply.

Sl. No.	Specifications	Unit
<b>Technical Schedule:</b>		
-	Compliance	
-	Type	
-	Continuous maximum rating	kVA
-	Rated primary voltage	V
	on principal tapping	
-	Rated no load secondary voltage	V
-	Normal ratio of transformation	V
-	No load ratio of transformation	V
-	Primary winding impulse	kV
	level peak	
-	Secondary winding impulse	kV
	level peak	
-	Method of cooling	
-	Rated primary current	A
-	Rated secondary current	A
-	Winding connection:	
	HV	
-	LV	
-	Vector group reference (IEC 74-6)	
-	Tap changing system	
-	Voltage ratio variation	
-	Temperature rise over	
	45°C at rated capacity	
-	in winding by resistance	°C
-	in top oil by thermometer	°C
-	Maximum hot spot thermometer	°C
-	No-load loss at rated voltage	W
-	Load loss at rated current	W
	and voltage Total losses at	
	rated voltage and	
-	at full load	W
-	at 75% load W	
-	at 50% load W	
-	% reactance voltage at rated	%
	load and frequency at 75°C	
-	% impedance voltage at rated	%
	load and frequency at 75°C	
-	Regulation in % of no-load	
	voltage at full load	



Sl. No.	Specifications	Unit
	current at 75°C	
	- at unity power factor	%
	- at 0.8 lagging power factor	%
	- % efficiency at unity power factor and 75°C	
	- at full load	%
	- at 75% load	%
	- at 50% load	%
	- % efficiency at 0.8 lagging power factor and 75°C	
	- at full load	%
	- at 75% load	%
	- at 50% load	%
	- Load at which maximum efficiency occurs	%
	- Maximum efficiency	%
	- Exciting current at rated voltage	A
	- In rush magnetising current at rated voltage and frequency	A
	- Maximum permissible duration of short circuit on LV windings	sec.
	- Quantity of oil	Ltrs
	- Weight of oil	kg
	- Make and type of oil	
	- Weight of core and windings	kg
	- Weight of tank and fittings	kg
	- Weight of complete transformer	kg
	- Overall dimensions:	
	- length mm	
	- width mm	
	- height overall	mm

**INDIAN STANDARDS FOR POWER AND DISTRIBUTION TRANSFORMER :**

- IS 335 Insulating Oil
- IS 1271 Electrical insulation classified by thermal stability
- IS 2026, I, II, III & IV Power Transformers
- IS 2099 Bushings
- IS 2147 Degree of Protection
- IS 2705 Current Transformers
- IS 3637 Buchholz relay
- IS 3639 Power Transformer Accessories
- IS 6600 Guide for Loading of Oil Immersed Transformers
- IS 7404 (Pt.2) Rectangular Paper Covered Copper Conductors
- IS 8036 Mild Steel Transformer Cooling Tubes
- IS 8789 Performance Characteristics for Three Phase Induction Motors
- IS 10561 Application Guide for Power Transformers
- IS:10028 Code of practice for selection, installation and maintenance of transformers
- IS:10028 - I - Installation
- IS:10028 - II- Maintenance
- IS:4257 Porcelain bushings for transformers
- IS:2705 Current transformers
- IS:8478 Application guide for tap changer
- IS 1180 (Part1):2014 Distribution Transformers (Energy Performance Standard).



**TENDER NO:232413006707**

**[22]**

**Annex 1**

**CAPITALISATION OF TRANSFORMER LOSSES**

(Ref. : TNEB Hand Book – Extract from Publication No.275 of CBIP October 1999)

$$\text{Annual Loss Factor LS} = 0.2\text{LF} + 0.8 (\text{LF})^2$$

Where LS is Annual Loss Factor &  
LF is Annual Load Factor

Assuming Annual Load Factor as 60%

$$\begin{aligned} \text{Annual Loss Factor} &= 0.2 \times 0.6 + 0.8 (0.6)^2 \\ &= 0.408 \end{aligned}$$

Assuming Transformer to be in Service for 350 days (i.e. 350 x 24 = 8400 Hours)

$$\text{i) Capitalised Cost of Iron Losses per kW} = 8400 \times \text{EC} \times \frac{(1+r)^n - 1}{r(1+r)^n}$$

Where EC = Energy Cost : Assumed Rs.3.00/kWh (as it is Cogen in TNPL).

r = Rate of Interest = 9 % assumed

n = Design Life = 25 years

$$\begin{aligned} &= 8400 \times 3 \times \frac{\{(1 + 0.09)^{25} - 1\}}{0.09 \times (1 + 0.09)^{25}} \\ &= 8400 \times 3 \times \frac{(1.09^{25} - 1)}{0.09 (1.09)^{25}} \\ &= \frac{8400 \times 3 \times 7.623}{0.09 \times 8.623} \\ &= 8400 \times 3 \times 9.8225 = \text{Rs.}2,47,428 \\ &= \text{Rs.}2,50,000 \end{aligned}$$

$$\begin{aligned} \text{ii) Capitalised cost of Load Loss per KW} &= 8400 \times \text{EC} \times \frac{\{(1+r)^n - 1\}}{r(1+r)^n} \times \text{LS} \\ &= 247528 \times 0.408 \\ &= \text{Rs.} 100991 = \text{Rs.}1,01,000 \end{aligned}$$

**TENDER NO:232413006707****[23]****Annex 2**

<b>Make of Components</b>	
Following makes of accessories and protection devices shall be provided.	
<b>Item</b>	<b>Make</b>
Buchholz relay	Prayog/Atvus
Magnetic oil gauge	Instrument & Control/Delite Industrial/Sukrut Udyog
Oil Temperature indicator (Digital type)	J N Marshall/Perfect Controls
Winding Temperature indicator (Digital type)	Perfect controls
MCB	Siemens/MDS/Alstorm/Schneider
Contactora	Siemens/ABB/Schneider
NCT	Kappa/Kalpa/Instrans
Selector switch	KEC/Salzer
Indication lamp (LED cluster type)	Technic/Siemens
Panel inside cubicle lamp (LED type)	Philips/HAVELLS
Panel space heater for thermostat	Reputed make
Terminals	ELMAX



**TENDER NO:232413006707**

[1]

**ANNEXURE – IV: GENERAL TERMS AND CONDITIONS**

**01. VALIDITY:**

The rate quoted during on line bidding should be kept valid for a minimum period of **90 days** from the date of Technical bid opening. During the validity period, bidder is not permitted to make any upward revision in the rate. The order shall be kept valid from the date of release of purchase order till completion of order quantity. During the validity period of the order, no upward revision in price will be allowed except in case of increase in statutory levies. **Tenderers who do not agree for the above validity clause will not be considered.**

**02. RATE:**

Bidder should quote their rate on F.O.R TNPL Kagithapuram basis only in BOQ (Price Bid) attached in NIC portal and upload the same in .XLS format. **Purchase order will be awarded based on lowest offer basis (Net of GST).**

**03. TRANSPORTATION:**

It is the responsibility of the supplier to arrange transportation and supply the material on F.O.R. Destination basis. TNPL requires the material on F.O.R. Kagithapuram basis only.

**04. TERMS OF PAYMENT:**

- a) 80 % Payment will be made within 30 days from the receipt of materials.
- b) 10 % Payment will be made immediately after successful commissioning of panel.
- c) Balance 10 % will be released immediately after receipt of Performance Bank Guarantee (PBG) for one year from the date of successful commissioning of panel with the claim period of three months (PBG format will be given by TNPL at the time of award of contract).

All the payment will be made only through RTGS mode. Supplier should provide RTGS details in their letter head with duly endorsed by the banker. If payment is being received already in RTGS mode, need not furnish the same again

**05. TAXES:**

Taxes applicable should be mentioned clearly and separately with the percentage. **GST Will be paid to the supplier, only if the input Tax Invoices / Debit Notes has been reported in GSTR-1 and responding GSTR-3B is filed.**

**06. DELIVERY:**

In the event of an order, tenderer should deliver the material within 5 months from the date of release of PO beyond which LD clause will be applicable.

**07. LIQUIDATED DAMAGES CLAUSE:**

The supplier should adhere to the delivery schedules of the order. In case of delay in supply, TNPL reserves the right to recover LD @ 0.5% of the total order value for each week of delay or part thereof, subject to a maximum of 5% of the total order value.

**08. DELAY OR NON DELIVERY:**

Time is the essence of the contract and completion of delivery dates agreed to are binding on the seller. In the event the seller is not able to supply as per the delivery schedules given by TNPL, Purchaser will have a right either to cancel the order without prejudice to any other rights or to make purchase from an alternate source at the risk and cost of the seller.

**09. SUBMISSION OF INVOICE:**

Original Invoice should be sent along with each consignment in a separate sealed cover addressed to CM(Stores)-Kagithapuram. Without the receipt of invoice along with the material, the consignment will not be received / unloaded. **You should send 5 copies of invoice along with the truck. Original Invoice – 1, Duplicate copy – 1, Triplicate copy - 1, Extra copies – 2.**



**TENDER NO:232413006707**

[2]

- a) In case of aggregate turnover of the Vendors in any of the preceding financial years from 2017-18 onwards is more than the aggregate turnover notified under sub-rule (4) of rule 48 then e-invoice is mandatory. The limit is Rs.20 Crore upto 30.09.2022 and Rs.10 Crore w.e.f 01.10.2022.
- b) In case of aggregate turnover of the company in any of the preceding financial years from 2017 – 18 onwards is less than the aggregate turnover notified under sub-rule (4) of rule 48, **then an undertaking to this effect shall be given by the Vendor in its letter head by Authorized Signatory along with a copy of the latest audited financials of the Company.**
- c) **In case of exemption in preparing e-invoice, then the Vendor needs to submit a declaration as under :**

“I/We hereby declare that though our aggregate turnover in any preceding financial year from 2017-18 onwards is more than the aggregate turnover notified under sub-rule (4) of rule 48, we are not required to prepare an e-invoice in terms of the provisions of the said sub-rule”

- d) **If the value of the goods supplied is more than the specified limit as under then E-way bill is mandatory for transportation of goods.**
- **Rs.50,000 for inter-state movement of goods**
  - **Rs.50,000 for intra-state movement of goods (within TN)**

**10. REJECTION:**

**TNPL requires material strictly as per our specification/requirements mentioned in Technical Details of the Tender. Material not meeting TNPL’s requirement will be rejected outright and the rejected material shall be taken back within 7 days and replacement should be made within 7 days from the date of intimation.**

11. In case of rejection and failure to replace goods, the order will be treated as incomplete and we may cancel the order and will arrange to purchase the goods from elsewhere at your risk and cost and the purchase order on you will be cancelled and action will be taken as per the order terms.

**12. EARNEST MONEY DEPOSIT:**

- a. All the bidders are required to pay an **EMD of Rs.50,000/- (Rupees Fifty Thousand only)** by RTGS and upload the remittance Statement along with UTR in the online procurement portal. <https://tntenders.gov.in/nicgep/app>. **Offers received without EMD are liable for rejection.**
- b. The offer should be valid for a minimum period of 90 days from the date of Technical bid opening. No bidder is permitted to withdraw his offer within the validity period of the tender or before finalization of the order. In case any bidder withdraws his offer within the validity period of the offer or before finalization of the order, the EMD amount paid by them will be forfeited.
- c. The EMD of the successful bidder will be converted into Security Deposit. This amount will not bear any interest and will be refunded on satisfactory completion of the order. This amount shall stand forfeited in the event of cancellation of order due to unsatisfactory performance of the seller.

**13. TRANSIT RISK & INSURANCE:**

Transit insurance should be arranged by the supplier at their cost.

14. The suppliers are permitted to deal only with the Purchase Dept.

**15. CANCELLATION:**

In the event of unsatisfactory performance in executing the order as per the terms, the order is liable for cancellation. In the event of cancellation, the Security Deposit will be forfeited. TNPL reserves the right to exercise the Risk Purchase Option given in Clause (16) of the General Terms and conditions of the tender. Also, TNPL reserves its right to cancel the order in full or part thereof without giving any reason by giving 15days notice if the material is not required due to any reason.

Contd....3



**TENDER NO:232413006707**

**[3]**

**16.RISK PURCHASE:**

In the event of PURCHASER terminating the contract in whole or in part, they may procure on such terms and in such manner as they deem appropriate, supplies similar to those so terminated and the SELLER shall be liable to the PURCHASER for any excess cost for similar supplies. However, in case of part termination of contract by the PURCHASER, the SELLER shall continue the performance of the contract to the extent it is not terminated under provisions of this clause.

**17.FORCE MAJEURE CLAUSE:**

If, at any time during the continuance of the contract, the performance in whole or in part of any obligations under this contract shall be prevented or delayed by reasons of any war, hostility, acts of public enemy, acts of civil commotion, strikes, lockouts, sabotages, fire, floods, explosions, epidemics, quarantine restrictions or other acts of God, Acts of Government in the country of Origin(hereinafter referred to as eventualities) then provided notice of the happening of any such eventualities is given by the Supplier within 7 days from the date of occurrence thereof, neither party shall, by reasons of such eventuality, be entitled to terminate this contract not shall have any claim for damages against the other. Deliveries under this contract shall be resumed as soon as practicable after such eventuality has come to an end or ceased to exist. Provided that if the performance in whole or part by the Supplier or any obligation under this contract is prevented or delayed by reasons of any eventuality for a period exceeding 30 days, TNPL may at its option terminate this contract by notice in writing.

**18.TNPL is not bound to accept the lowest quotation and TNPL may accept or reject the lowest quotation or any quotation at its sole discretion without assigning any reason whatsoever.**

**19.CORRESPONDENCE:**

All correspondence concerning the tender shall state the tender No and due date and shall be addressed to **DGM (PURCHASE)**, Tamil Nadu Newsprint and Papers Limited, Kagithapuram - 639 136, Karur District, Tamil Nadu. TNPL is not responsible for postal or any other delay for timely receipt of quotation.

**20. COVERING LAW AND JURISDICTION:**

Notwithstanding anything contained herein, is hereby agreed that only the Courts at Chennai shall have exclusive jurisdiction for the adjudication of any disputes between the parties hereto, to the specific exclusion of all other courts.

21. TNPL reserves the right to split the order on more than one vendor.

**22.INFORMATION / DOCUMENTS**

Tenderer should provide true and correct information / documents wherever asked for in the tender. At any point of time, if the information / supporting documents provided by the tenderer is false / fabricated, tenderer's offer shall be disqualified automatically.

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**TENDER NO:232413006707****ANNEXURE – IV: TERMS AND CONDITIONS FOR E-REVERSE AUCTION:****Contact Details:**

Mr. Shanmugakumar.S DGM (Purchase)	Phone	04324–277 001	Fax	04324 – 276 368
	e-mail	<a href="mailto:shanmugakumar.s@tnpl.co.in">shanmugakumar.s@tnpl.co.in</a> / <a href="mailto:purchase.elec@tnpl.co.in">purchase.elec@tnpl.co.in</a>		

**Selection process of vendors:**

1. Bidders must submit the Process Compliance Statement duly signed, to TNPL along with Technical-cum-Commercial bid.
2. TNPL will open the Price Bids of technically qualified bidders in the e-procurement portal Subsequently, TNPL would communicate the Opening Price, Bid decrement and date and time of Reverse Auction to registered Mobile number and E-mail.
3. On the event date, Vendors shall submit bids from their computers through Internet on <https://tntenders.gov.in/nicgep/app>. As and when other bidders place the bids, they would have the opportunity to revise their bids downwards if they wish to do so.
4. At the end of the sourcing event, TNPL will have a list of all the bidders with their final bids, and will decide on awarding the business based on the comprehensive value proposition of each Bidder.
5. TNPL's decision on the award shall be final and binding.
6. **All other terms and conditions are as per TNPL tender.**

**Bidding Price Format:** Bidders should quote the **Rate per NO in INR.**

**Opening Price:**

- Opening price is defined as the highest initial price.
- Bidders can bid lower than the Opening Price.

**Currency:** All the Bidders must quote in the currency as informed by TNPL.

**Bid Decrement:**

Bid Decrement is the minimum fixed amount by which the next bid value can be decreased.

**Bid Event format:**

This bid event will be conducted in Standard English Price Bid Event, with Alias Name Format.

**Quantity/Specifications/Terms and Conditions:**

Please refer the Annexure – III & IV for the above details.

**Bidding Time & date:** Will be communicated to your registered mobile number/ E-mail by NIC separately.

**EVENT INFORMATION****Extension Rule:**

- There would be system generated Auto Extensions of 10 minutes each, if there is a bid placed by any participating supplier(s) in the last 10 minutes before the scheduled close time of electronic Bidding
- Extension of 10 minutes would happen for any number of times, if bid(s) is/are placed in the last 10 minutes.
- Extension will cease to occur, if no bid(s) are placed in the last 10 minutes.

**Illustration:**

- **For closing time at 15:00 hours:** If a bid is placed between 14:50 Hours to 15.00 hours (say 14.57), the bidding would be extended till 15.10 hours.
- If no bids are placed between 14:50 hours to 15.00 hours, the bidding will conclude at 15.00 hours.

**Validity:**

The bidders should keep their bids valid for a period of **90 days** from the date of Technical bid opening. No bidder is permitted to withdraw his quoted rate within the validity period. In case of withdrawal of offer, the EMD will be forfeited and TNPL may claim additional expenses, if any incurred, from the bidder due to withdrawal of offer by him.



**ANNEXURE – IV:PROCESS COMPLIANCE STATEMENT FOR E-REVERSE AUCTION:**

<b>Bid event to be held for procurement of</b>	<b>PROCUREMENT OF 11/0.433KV, 2 MVA, THYRISTOR DUTY, DYN11 DISTRIBUTION TRANSFORMER WITH ACCESSORIES</b>	<b>TNPL Tender No</b>	<b>232413006707</b>
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Name of the Organization: \_\_\_\_\_

The following terms and conditions are deemed as accepted by us for participation in the above bid event. We have accepted the auction rules on participation at the bid event. The award decision by TNPL would be final and binding on us.

- a) We will not divulge either our bids or those of other Vendors to any other external party.
- b) We agree to non-disclosure of trade information regarding the purchase, identity of TNPL, bid process, bid technology, bid documentation and bid details.
- c) Inability to bid due to telephone line glitch, Internet response issues, software or hardware hangs will not be the responsibility of TNPL.
- d) Based on the competitive quotes received, TNPL's decision will be final and binding on us.
- e) Our participation in a bid event is by invitation from TNPL.
- f) TNPL is not obliged to place the contract if the expected price of the lots or event is not met. TNPL will be at liberty to cancel the bid event and initiate a fresh one, if necessary.
- g) Bids once made cannot be withdrawn or modified under any circumstances.
- h) TNPL can decide to extend, reschedule or cancel the auction.
- i) Bids cannot be increased. Subsequent bids from the same supplier need to be lower by at least the minimum bid decrement from the lowest bid.
- j) We shall indemnify and hold TNPL, its and their successors and assigns, officers, employees and agents harmless from any direct or indirect loss or damage and or claims for personal injury or property damage caused by any contractual problems or by our negligent or fraudulent act, omission or willful misconduct or breach of any term of this Agreement.
- k) TNPL or its employees or other representatives will not be liable for damages arising out of or in connection with the use of this site. This is a comprehensive limitation of liability that applies to all damages of any kind, including (without limitation) compensatory, direct, indirect or consequential damages and claims of third parties.
- l) TNPL does not guarantee continuous, uninterrupted or secure access to its services, and operation of the site may be interfered with by numerous factors outside of its control.
- m) **Validity:**  
The bidders should keep their bids valid for a period of **90 days** from the date of Technical bid opening. No bidder is permitted to withdraw his quoted rate within the validity period. In case of withdrawal of offer, the EMD will be forfeited and TNPL may claim additional expenses, if any incurred, from the bidder due to withdrawal of offer by him.

We agree to have read, understand and agree to abide by this statement.

Organization	
Name	
Designation	
Signature & stamp /seal	
Date & Place	

\*\*\*\*\*



**TENDER NO: 232413006707- ANNEXURE V - TECHNICAL CUM COMMERCIAL BID**

**NOTE:**

1. Before filling up the details, please carefully read all the points. No correction or overwriting is allowed.
2. The last date for submission of bid online is **31.07.2024 at 3 PM.**
3. No late Enquiry will be entertained and TNPL will not be responsible for any delay in submission of bid online on due date and in time.

01	<p>The bidder must be an Original Equipment Manufacturer (OEM) having designed, manufactured, tested and supplied distribution transformers of at least 100 Nos of rating from 2 to 4 MVA in the past five (5) financial years (Apr 2017 – Mar 2023), which are in successful operation.</p> <p><b>The bidder shall provide the documentary evidence for meeting the above without fail along with Technical bid, failing which their offer will not be considered.</b></p> <p><b>Also tenderer should be registered under GST Act. Copy of GST Registration Certificate (relevant State from where you supply the material) should be uploaded along with technical bid without fail.</b></p>	<p><b>YES / NO</b></p> <p><b>SUBMITTED / NOT SUBMITTED</b></p> <p><b>YES / NO</b></p>
02	<p>Whether you are agreeable to supply the Distribution Transformer Strictly as per the <b>Specification, Scope of supply, Scope of Service and Equipment Specification</b> given in the annexure-III Technical specification of the tender.</p>	<p><b>AGREED / NOT AGREED</b></p>
03	<p>Whether you are agreeable for <b>“Performance Guarantee for supply of Equipment”</b> as per Clause no:9 of Technical Specification of the tender.</p>	<p><b>AGREED / NOT AGREED</b></p>
04	<p>Whether you are agreeable for <b>“Warranty Clause”</b> as per Clause no:11 of Technical Specification of the Tender.</p>	<p><b>AGREED / NOT AGREED</b></p>
05	<p>Whether you have provided all the <b>“Information”</b> as requested in Clause no:12 &amp; 13 of Technical Specification of the Tender.</p>	<p><b>YES / NO</b></p>
06	<p>Are you agreeable for the <b>“Delivery”</b> as per Clause no:14 of Technical Specification of the tender.</p>	<p><b>AGREED / NOT AGREED</b> <b>Confirm Your Delivery Period:</b></p>
07	<p>Whether you have provided <b>“GUARANTEED TECHNICAL PARTICULARS”</b> as per Clause no:15 of Technical Specification of the tender.</p>	<p><b>YES / NO</b></p>
08 (a)	<p><b>PAYMENT TERMS:-</b> Whether you have agreed for TNPL’s payment terms as given below:-  <b>a)</b> 80 % Payment will be made within 30 days from the receipt of materials.  <b>b)</b> 10 % Payment will be made immediately after successful commissioning of panel.  <b>c)</b> Balance 10 % will be released immediately after receipt of Performance Bank Guarantee (PBG) for one year from the date of successful commissioning with three months claim period.</p>	<p><b>AGREED / NOT AGREED</b></p>

08 (b)	<p><b><u>PAYMENT THROUGH RTGS:</u></b> All the payment will be made only through RTGS mode. Supplier should provide RTGS details in their letter head with duly endorsed by the banker. If payment is being received already in RTGS mode, need not furnish the same again.</p> <p>RTGS payment will be made within 35 days from the date of receipt of material with applicable bank charges will be extra to your account.</p>	<p><b>Please provide the following details:-</b></p> <p><b>1.Name of the Bank:</b> <b>2.Branch Code :</b> <b>3.Branch Name :</b> <b>4.Account Number :</b></p>
09 (a)	<p><b><u>Tender Fee (non refundable):</u></b> Whether you have sent Tender fee of Rs.590/- by RTGS (<b>Offers received without Tender Fee are liable for rejection</b>). <b><u>The UTR / RTGS transaction statement should be uploaded as pdf in the online portal :</u></b> <a href="https://tntenders.gov.in/nicgep/app">https://tntenders.gov.in/nicgep/app</a></p>	UTR No : DATE : AMOUNT : BANK :
09 (b)	<p><b><u>Earnest Money Deposit(EMD):</u></b> Whether you have sent EMD amount of <b>Rs.50,000/-</b> by RTGS. (<b>Offers received without EMD are liable for rejection</b>). <b><u>The UTR / RTGS transaction statement should be uploaded as pdf in the online portal :</u></b> <a href="https://tntenders.gov.in/nicgep/app">https://tntenders.gov.in/nicgep/app</a></p>	UTR No : DATE : AMOUNT : BANK :
10 (a)	<p><b><u>FINANCIAL STATUS:</u></b> Please give your sales turnover for the past 3 years along with supporting documents. <b>Sales Turn over documents should be uploaded.</b></p>	<p align="center"><b>Submitted/ Not Submitted</b></p>
10 (b)	<p>Tenderer should provide an audited balance sheet / IT return acknowledgement copies for the past 3 years without fail. <b>Audited balance sheet/ IT return acknowledgement copies should be uploaded.</b> <b><u>Offers of those who do not provide the above documents are liable for rejection</u></b></p>	<p align="center"><b>Submitted/ Not Submitted</b></p>
11	<p><b><u>LIQUIDATED DAMAGES CLAUSE (LD):</u></b> Are you agreeable for the LD Clause as detailed below:- The Bidder should adhere to the delivery schedules of the order. In case of delay in supply, TNPL reserves the right to recover LD @0.5% of the total order value for each week of delay or part thereof, subject to a maximum of 5% of the total order value.</p>	<p align="center"><b>AGREED / NOT AGREED</b></p>
12	<p><b><u>TRANSPORT ARRANGEMENT:</u></b> It is the responsibility of the supplier to arrange transportation and deliver the material on FOR Kagithapuram basis under freight paid basis. Freight charge extra (if any) shall be claimed through your Invoice. Freight "To pay" is not allowed for this procurement.</p>	<p align="center"><b>AGREED / NOT AGREED</b></p>
13 (a)	<p><b><u>REJECTION OF MATERIAL:</u></b> In case of rejection, time required for replacement</p>	



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13 (b)	In case of rejection, the material should be taken back within 7 days as otherwise the same shall be sent back to you at your risk and cost	<b>AGREED / NOT AGREED</b>	
14	<b>Please furnish the following particulars with necessary supporting documents without fail. Failing to furnish the details, the offers are liable for rejection.</b>		
<b>DESCRIPTION</b>	<b>REGISTRATION NO.</b>	<b>DATE</b>	<b>Copy of the Certificate attached</b>
GST NO			YES / NOT APPLICABLE
PAN NO			YES / NO
<b>INCOME TAX DETAILS. PLEASE TICK ( √ ) WHICHEVER IS APPLICABLE (NECESSARY SUPPORTING DOCUMENTS TO BE FURNISHED)</b>			<b>Copy of the Certificate attached</b>
IN-INDIVIDUAL			YES / NOT APPLICABLE
HI-HINDU UNDIVIDED FAMILY			YES / NOT APPLICABLE
PA-PARTNERSHIP FIRM			YES / NOT APPLICABLE
PR-PRIVATE LIMITED			YES / NOT APPLICABLE
PU-PUBLIC LIMITED			YES / NOT APPLICABLE
AS-ASSOCIATION OF PERSON			YES / NOT APPLICABLE
BO-BODY OF INDIVIDUALS			YES / NOT APPLICABLE
LO-LOCAL AUTHORITY			YES / NOT APPLICABLE
AR-ARTIFICIAL JUDICIAL PERSON			YES / NOT APPLICABLE
GO-STATE GOVERNMENT			YES / NOT APPLICABLE
CG-CENTRAL GOVERNMENT			YES / NOT APPLICABLE

<b>TYPE OF INDUSTRY PLEASE TICK ( √ ) WHICHEVER IS APPLICABLE (NECESSARY SUPPORTING DOCUMENTS TO BE FURNISHED)</b>			<b>Copy of the Certificate attached</b>
MI-MICRO			YES / NOT APPLICABLE
S-SMALL			YES / NOT APPLICABLE
M-MEDIUM			YES / NOT APPLICABLE
SSI-SMALL SCALE INDUSTRY			YES / NOT APPLICABLE
L-LARGE			YES / NOT APPLICABLE
O-OTHERS			YES / NOT APPLICABLE

Contd....4



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15 (a)	<b>VALIDITY OF OFFER AND RATE:</b> Agreeable to keep the offer valid for a minimum period of 90 days from the date of Technical Bid opening:	<b>AGREED / NOT AGREED</b>
(b)	Whether accepted the Validity Clause no.01.of General Terms and Conditions of this Tender. <b><u>Offers of those who do not agree for the above validity clause will not be qualified in the tender.</u></b>	<b>AGREED / NOT AGREED</b>
(c)	During the validity period, no price increase will be allowed except in the case of statutory levies like excise duty and sales tax.	<b>AGREED / NOT AGREED</b>
16	<b>DECLARATION:</b> Whether the partners or directors or proprietor as the case may be of the company are related to any of the Employees of TNPL. In case the partners or directors or proprietor of the company are related to any of the employees of TNPL, a declaration to this effect giving the details of the name of the Employee, relationship etc., should be provided separately without which the offer will not be considered.	<b>YES / NO</b>

I/We hereby declare that the particulars furnished above are true and correct to the best of my/our knowledge and agree to all the terms and conditions of TNPL **Tender No: 232413006707.**

**NOTE:**

- The due date for submission of completed tender document online in e-procurement portal, <https://tntenders.gov.in/nicgep/app> is **31.07.2024** at 3.00 PM.
- No late tender will be entertained. TNPL will not be responsible for any delay in submission of bid on due date and in time.
- **The BOQ template (Price Bid Template)** must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bid is liable for rejection. Bidders are allowed to enter the Bidder Name and Values only.
- The signed scanned copy of techno-commercial document to be uploaded in the online procurement portal <https://tntenders.gov.in/nicgep/app>

DATE :	(SIGNATURE WITH SEAL)
ADDRESS FROM WHERE YOU RAISE INVOICE (In case of placement of order) :	
PHONE NO:	
CONTACT PERSON:	
MOBILE NO:	
FAX NO :	
E-Mail :	



## TAMILNADU NEWSPRINT AND PAPERS LTD

**TENDER NO:232413006707**

**ANNEXURE - VI**

**PRICE BID SCHEDULE**

To

M/s. Tamil Nadu Newsprint and Papers Limited  
Kagithapuram – 639 136, Karur District

**Sub: PROCUREMENT OF 11/0.433KV, 2 MVA, THYRISTOR DUTY, DYN11 DISTRIBUTION TRANSFORMER WITH ACCESSORIES – Reg**

I/We hereby request to quote online as per the BOQ and upload the same with digital signature:

The price to be quoted in INR in the BOQ (Excel file) and uploaded in the online portal.

Name of the bidding firm			
S.No	Description	Basic Price (including P&F, Freight Charge & Other Charge if any) (Rs. P)	GST in %
1.	<b>1 No of 11/0.433KV, 2 MVA, THYRISTOR DUTY, DYN11 DISTRIBUTION TRANSFORMER WITH ACCESSORIES</b>	Basic Price to be quoted only in E-portal	GST (in percentage) to be quoted only in E-portal

**Note:**

- 1. Tenderer should quote the Basic rate (inclusive of P&F, Freight & other charge if any) on Lumpsum basis for total panel and its accessories.**
- 2. Tenderer should quote applicable CGST and SGST or IGST in percentage (%) only.**

The price Bid has been given as a BOQ format with the tender document. The BOQ (Protected Excel sheet) is to be downloaded and to be filled by the Bidder. Bidders are required to download the BOQ file, open it and fill the Blue colored (unprotected) cells with their respective financial quotes and other details (such as name of the Bidder etc). No other cells should be changed. Once the details have been completed, the Bidder should save it and submit it online, without changing the filename. If the BOQ file is found to be modified by the Bidder, the Bid will be rejected.

All other terms and conditions are as per the above Tender.

**I / We have read and understood all the terms and conditions of above tender and agree to abide by all of them.**

**The price bid to be offered in the online excel format (BOQ) provided in the E-procurement portal and uploaded in the online portal with Digital signature.**

Place:

(Signature with seal)

Date:

Address: