

# CHHATTISGARH STATE POWER TRANSMISSION CO. LTD.

(A Govt. of Chhattisgarh undertaking) (A successor company of CSEB)

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# OFFICE OF CHIEF ENGINEER (STORE & PURCHASE) CHHATTISGARH STATE POWER TRANSMISSION CO. LTD. DAGANIYA, RAIPUR (C.G.) 492-013

Phone: 0771-2574236, 2574240 Fax: 0771-2574246

Website- www.cspc.co.in, email- pp.singh@cspc.co.in

# TENDER SPECIFICATION TR-19/S&P/33 Dtd.17/02/2020

# SUPPLY OF 33/0.4 KV, 200 KVA & 630 KVA Station Transformers

LAST DATE & TIME OF SUBMISSION OF TENDER

13.03.2020 (TIME 15:00 HRS.)

DUE DATE OF OPENING OF TENDER

13.03.2020 (TIME 15:30 HRS.)

Cost of Tender:-i)Rs.1120/- (Rs.1000+Rs. 120 Incl of GST @ 12%) (if purchased from O/o CE(S&P)

ii) Rs. 1180/-( Rs.1000+Rs. 180 Incl of GST 18%) (if downloaded from website)

19/S&P/33 Page 1 of **57 CE(S&P)** 

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# TENDER FORM CHHATTISGARH STATE POWER TRANSMISSION CO. LTD

Tender document SL.No	
ISSUED to M/s	
Cost of Tender documents Rs	
Received vide D.D.No	Dtd
Name of Bank	

**Signature & Seal of Issuing Authority** 

# CHHATTISGARH STATE POWER TRANSMISSION CO LTD RAIPUR C.G. (INDIA) TENDER FORM

The undersigned hereby tender and offer (subject to CSPTCL's conditions of tendering), the Chhattisgarh State Power Transmission Co. Ltd. to test and supply, plant, machinery, materials, deliver and execute and do the several works and things which are described or referred to in the enclosures & annexure to the specification **TR-19/S&P/33 dtd.17.02.2020** copies of which are annexed hereto and which under the terms thereof are to be supplied, executed and done by the contractor in a thoroughly good and workman like manner, and to perform and observe the provisions and agreements or the part of the contract contained in or reasonably to the inferred from the said tender documents for the sum and at the rates set out in schedules annexed hereto.

# It is confirmed that:

- (i) Questionnaire for Commercial terms and conditions.
- (ii) Questionnaire for Technical specifications of the Equipments, and
- (iii) All other conditions wherever described in the tender documents have been replied in full giving clear details. It has been noted that in case any reply is not given or any reply is incomplete / ambiguous the CSPTCL will have right to take the same to be advantageous for the CSPTCL. CSPTCL's decision in this regard will be final. The bidder will have no right to furnish any technical or commercial clarification after opening of the bid which may in any way alter the offered prices.

Dated, this day of	Bidder's Signature
	Bidder's Address

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# CHHATISGARH STATE POWER TRANS. CO. LTD.

(A Govt. of Chhattisgarh undertaking) (A successor company of CSEB) CIN- U40108CT2003SGC015820/GSTIN-22AADCC5773E1ZX

# O/o Chief Engineer (Store & Purchase) 3<sup>rd</sup> Floor, SLDC Building, Dangania, Raipur (C.G.)-492013

Website- <a href="www.cspc.co.in">www.cspc.co.in</a>, Phone-0771-2574236/40 Email id: - pp.singh@cspc.co.in Fax-0771-2574246

No. CE/TR-19/S&P/33/NIT/2280

Raipur, dtd 17.02.2020

# E-PROCUREMENT TENDER NOTICE

Sealed tenders are invited from **experienced manufacturers** for supplying the following equipments/ material.

				Cost document GST (Rs	O		
Sl. No.	Tender No.	Particulars	Qty	Printed Tender Form	E-Tender Form Online (downloaded from website)	EMD (Rs.)	Due date
	TR-19/S&P/33	33/0.4 KV,200 KVA Station Transformers	15 Nos.	1120/-	1180/-	1,17,190/-	13.03.2020
Z.	RFx No- 8100016808	33/0.4 KV,630 KVA Station Transformers	02 Nos.				

- NOTE:-i) In case any of the above dates is declared as holiday then the particular date will automatically get shifted to next working day.
  - ii) The quantities mentioned above are tentative & may vary according to final requirement.
  - Any notice for extension of due date of tender opening shall not be published in newspapers. It will be displayed only on official website of the company.
  - iv) The tender will be processed through e-bidding module of SAP-SRM. Bidders are advised to visit our website <a href="www.cspc.co.in">www.cspc.co.in</a>/csptcl for viewing detailed instructions regarding submission of offer through SAP-SRM.

# // TERMS AND CONDITIONS //

- (i) The tender documents can be obtained from the office of the CE (S&P) in person on payment of cost of tender documents in the form of DD only made out in the name of Manager (RAO: HQ), CSPTCL, Raipur accompanied with firm's application on its letter head. If tender document is required by post, Rs.250/- is to be paid by DD additionally along with the cost of documents. If more than one tender document is required, separate DDs should be furnished for each tender. CSPTCL shall not be responsible for any postal delay in receipt/ non-receipt of tender documents. No receipt of tender shall be issued in any case.
- (ii) The tender document can also be downloaded from official website of CSPTCL 'www.cspc.co.in' (go through Chhattisgarh State Power Transmission Co. Ltd.- Tender Notice/ Store & Purchase Office) and required tender fee in form of DD in favour of Manager (RAO:HQ), CSPTCL, Raipur payable at Raipur should be submitted along with EMD in envelope containing DD of EMD. The envelope containing DDs of cost of tender document and EMD should be suitably super scribed "DDs containing cost of tender document and EMD". The details of DDs be mentioned on the outer side of the envelope

- also. Please note carefully in absence of aforesaid requisite tender fee, further bids shall not be considered for opening.
- (iii) Tender document and the details specification can be obtained on any working day one day prior to the due date. The tenders duly filled in shall be dropped/ get dropped in the specified tender box up to 15.00 Hrs on the due date. Any other means of delivery shall not be accepted. No receipt of tender shall be issued in any case. The tender box shall be locked/ sealed at 15.00 Hrs on the due date and shall be opened at 15.30 Hrs on the same date.
- (iv) After publication of NIT & before the date of opening of TC bid, corrigendum/ other information (if any) shall be displayed on our official web only. The bidders are requested to remain in contact with this office or visit our web-site for any development/ clarification/ amendment issued subsequently.
- (v) CSPTCL reserves the right to accept or reject any or all the offers, in part or full without assigning any reason whatsoever.

Website <a href="www.cspc.co.in">www.cspc.co.in</a>
(Go through CSPTCL-Tender notice)

Chief Engineer (S&P) CSPTrans.CL: Raipur

# Special Instructions to bidders for submission of bid through SAP- SRM module. (E-bidding)

The tender specification no. 02-16/TR-19/S&P/33 is to be processed through e-bidding. The bid is to be submitted online as well as offline (hard copy). Details of NIT & Tender Documents are available on our website http://www.cspc.co.in & http://ebidding.cspcl.co.in:50724/irj/portal. The bidder may download the same from the above site. In e-bidding portal, tender documents will be displayed in online tender display at Technical RFx section.

Last date & time of submission of bid in hard copy and also in softcopy is **13.03.2020** upto 3.00 pm and due date & time of opening of part –I and part-II of the tender is **13.03.2020** at 3.30 pm.

# **Important Instructions:-**

- Please note that this tender shall be processed online as well as offline. The bidder has to submit all the documents in hard copy as per tender specifications in three envelopes. Besides above, scanned copies of following documents are to be uploaded in e-bidding portal:-
- (a) The scanned copy of DD for tender fee.
- (b) The scanned copy of DD for EMD/ EMD exemption.
- (c) Schedule V commercial information.
- (d) Schedule VI (A) Schedule for commercial deviation.
- (e) Schedule VI (B) Schedule for Technical deviation.

  It may please be noted that only above mentioned documents are to be uploaded in ebidding portal and no other document is required to be submitted in e-bidding portal. The bidder shall give reply to following questions regarding above documents in e-bidding portal:-
  - (i) Whether scanned copy of tender fee DD uploaded. Yes/No
  - (ii) Whether scanned copy of DD of EMD /EMD Exemption uploaded. Yes/No
  - (iii) Whether scanned copy of Schedules of Commercial information Yes/No
  - (iv) Whether scanned copy of Schedules of Commercial deviation Yes/No
  - (v) Whether scanned copy of Schedules of Technical deviation Yes/No
- It is not required to upload /attach scanned copy of price bid in Soft/ Hard copy. Only the rates are to be filled in the item tab in e-bid in SAP SRM System (online e-tender). Rates should be quoted online & in specified fields only. Once the rates are filled, the bidders may change their rates up to the due date and time of submission of tender. After due date and time, no change on any ground whatsoever will be accepted.
- After scrutiny of techno-commercial bid, the price bid will be opened in e-bidding system only of eligible bidders for which suitable intimation will be given to the bidders offline & through email.
- 4 Please note that e-mail is always system generated, hence bidders are advised to regularly check their inbox/junk mail box.
- CSPTCL shall not assume any responsibility for non-supporting of system, internet, line & associated hardware & software for bidding their tender. No extension in time shall be granted on such grounds. The bidder should submit their bid well before submission dead line to avoid any system related problem. It is strongly recommended not to wait for submission of bid in last minutes as internet/technical problem may disrupt their works.
- Reference time for submission dead line shall be the time displayed in the portal and shall be treated as final.

- After end of submission dead line, no alteration in the tender will be allowed by the system. However, in case of extension of due date of opening of tender, the bidders will be allowed to submit revised bid in the system.
- 8 CSPTCL will not accept incomplete bid.
- 9 The bidder must have a valid Digital Signature & SAP SRM User ID. User ID & Password from CSPTCL and Digital Signing Certificate and Digital Encryption Certificate from any recognized digital signature issuing authority are required for participation in any Tender. The bidder shall intimate in advance regarding details of digital signature issuing authority for ensuring the reliability of the same. For User ID and Password for participating in the tender, the bidder shall register on line through e-bidding portal.
- The e-bidding vendor user manual displayed on websitehttp://ebidding.cspcl.co.in:50700/irj/portal for the help of the bidders. For any further queries the bidder may contact at Helpline no. 0771-2576672/73 (EITC, CSPDCL, Raipur)
- The training for bidders will be on every Wednesday from 3.00 pm to 5.00 pm at office premises of Energy Info Tech Center (EITC) at Dangania, Raipur.
- Tender shall be opened in the scheduled time as notified. If the due date of opening/submission of tender documents is declared a holiday by the Govt. or local administration, it will be automatically shifted to next working day for which no prior intimation shall be given. Tender opening shall be continued on subsequent days, in case the opening of all tenders is not completed on due date because of the technical constraints of system on the day of opening. It may be noted that the due date of opening/time may be altered/ extended if desired by CSPTCL without assigning any reason. However, intimation shall be available on company's tender portal/bidders email (if participation shown). The bidders are requested to keep track of the same.
- Amendment in tender specification will be published on our website as well as in SRM system and the intimation regarding amendment in date extension will be conveyed through system generated e-mail to registered bidders only.
- Before participating the bidder shall carefully read all the instructions and processes.
- Tender duly completed in all respects will be accepted online up to due date & time and will be opened on the due date at specified time in the presence of tenderers or their authorized representatives. In case of authorized representative(s) they shall bring the original authorization letter with their signature attested by the bidder.

CHIEF ENGINEER (S&P) CSPTCL: RAIPUR

# SECTION - I INSTRUCTIONS TO BIDDERS

IMPORTANT: Except as otherwise provided in any subsequent modification/LOI/Order, the provision of this Section shall have effect notwithstanding anything inconsistent therewith contained in any other Schedule/ Annexure/ Clause/ Terms/ Condition of this tender document)

E-Bidding & Due date: Please note that the Tender shall be processed through e-Bidding. Instruction to Bidders for submission of Bids through SAP-SRM Module (e-Bidding) are detailed in:-

# **Instructions to bidders for submission of bid through SAP- SRM module (e- Bidding)**

- 1. The bidders are requested to go through these Instructions carefully and submit the tender in e -Bidding portal and also in hard copy accordingly.
  - Date of submission of tender is **13.03.2020 upto 3.00 PM** and tender will be opened on same day at 3.30 PM in the Office of CE (S&P), CSPTCL, Danganiya, Raipur, through E-bidding as per the guidelines .
- 2. The Chhattisgarh State Power Transmission Company Ltd., Raipur (or any authority designated) hereinafter called 'OWNER' or 'CSPTCL' or 'Company' will receive bids as per the accompanying specification. All bids shall be prepared and submitted in accordance with instructions, terms and conditions stipulated in the tender.
- 3. Tender Fee: The tender document can also be downloaded from official website of the CSPTCL (www.cspc.co.in/csptcl). In case bidder chooses to submit his offer on downloaded tender document, they will be required to deposit specified tender fee (cost of tender documents- non refundable) in form of DD in favour of Manager (RAO: HQ), CSPTCL, Raipur payable at Raipur. The bank draft shall be issued from the nationalized/ scheduled bank. DD should be enclosed with the part I of the tender offer. In absence of tender fee, offer will not be considered for opening of price bid.
- **4.** (i) Earnest Money:- The earnest Money in the instant tender is Rs. 1,17,190/- (Rs. One Lakh Seventeen Thousand One hundred & Ninty) only payable in the form of demand draft in favor of Manager (RAO: HQ), CSPTCL, Raipur.
  - (ii) Goods & Service Tax:-The bidder should furnish valid GST registration certificate alongwith EMD. In absence of GST registration the offer shall not be accepted.
- **5.** The bidding is open to manufacturers only who can provide satisfactory evidence to substantiate this.
- 1. **Pre-Qualifying Requirements:**-

The bidder is required to furnish self attested documentary proof for having acquired following pre qualifying requirement (PQR):

- (A) Manufacturing & Technical Requirement:-
- (i) The Bidder should be Indian manufacturer having manufacturing unit in India. The Bidder should have minimum experience of at least three years for supply of quoted Station Transformer or higher rating (in KVA) to following Indian entities as on date of NIT.
  - (a) Power utilities owned and controlled by Central or State Government. Or
  - (b) PSUs, Or
  - (c) Govt. Organizations

Further, the **quoted Station Transformer** or higher rating station transformer should be in successful operation for minimum 2 years from commissioning as on date of issue of NIT in the aforesaid entities.

# The following documents should be submitted in support of this Manufacturing & Technical Pre Qualifying Requirements:-

- (a) As a proof of manufacturing unit the bidder should submit self attested copy of valid NSIC/DIC certificate for **quoted Station Transformer** or higher rating (in KVA). In case the firm is not registered with NSIC/DIC, bidder should furnish self attested copy of Factory License issued by Industries Department of State/Central Govt. for **quoted Station Transformer** or higher rating (in KVA).
- (b) In support of supply, copies of purchase orders (in the name of manufacturer) and relevant MRCs (Material Receipt certificate) issued by the entities mentioned in **clause-5(A)** (i) will be submitted. The date of receipt mentioned in the MRC will be treated as actual date of supply. The supply experience as on the date of issue of NIT will be counted from the aforesaid actual date of supply. In case of non-availability of MRC,commissioning certificate/performance certificate may also be treated as proof of actual supply provided it establishes the requirements as per PQR and is issued by an officer not below the rank of Executive Engineer/Manager of the entities mentioned in clause-5(A) (i) of the PQR. If performance certificate indicates both proof of supply experience of 5 years or more and satisfactory performance for three years or more, separate MRC will not be required as a proof of supply. However, if only MRC is submitted as proof of supply, performance certificate will have to be submitted separately to establish minimum performance of three years as per PQR. All these documents should be attested by the authorized signatory of the tender.
- (c) In support of satisfactory performance, a self attested copy of **performance certificate** issued by the entities mentioned in **clause-5(A) (i)** of the PQR will be submitted.
- (ii) The bidder should have all the type test certificates of **quoted Station Transformer** as per relevant standards i.e. ISS/ IEC carried out at and issued by Govt. standard test laboratory/ NABL accredited laboratory. The type test certificate shall not be more than **Five years** old as on the date of issue of NIT.

# (B) Commercial/Financial Requirement:-

- (i) The bidder should have Minimum Average Annual Turn Over (MAAT) for best three years out of last five financial years (i.e.,2014-15, 2015-16, 2016-17, 2017-2018 & 2018-2019) of Rs. 1.76 Crore (Rs. One Crore Seventy Six Lakh) only duly certified by CA & Self attested copies of audited Balance Sheet, Annual Profit & Loss Statement and turnover of last five years are to be submitted.

  In case bidder is a holding company, MAAT shall be that of holding company only (i.e. excluding its subsidiary / group companies). In case bidder is a subsidiary of a holding company, the MAAT shall be of subsidiary company only (excluding its holding company).
- (ii) Net Worth of bidder for last three financial years i.e. 2016-17 & 2017-2018, & 2018-2019 should be positive. Net worth means the sum total of the paid up capital & free reserves (excluding reserves created out of revaluation) reduced by aggregate value of accumulated losses (including debit balance in profit and loss account for current year) and intangible assets. C.A. audited Self attested copy of net worth for the last three financial years is to be submitted.
  - (iii) The bidder shall give following self attested undertaking duly certified by CA that:-
  - (a) All payment obligations (principal and/interest) on outstanding debentures have been discharged and no such payment which was due on 31.12.2019 is outstanding/overdue.
  - (b) The bidder is presently not in default in payment of any bank loan/interest for more than three months or any loan account of the bidder has not been classified

as NPA (Non Performing Asset) by the creditor/lending bank as on date of submission of bid.

# (C) Other Requirement:-

- (i) The bidder should not be debarred/black listed by Bank/State Govt./Central Govt./State PSU/CPSU/SEB/ Public utility as on the date of issue of NIT. A declaration in this regard shall be furnished by the bidder
- (ii) "Any sums of money due to CSPTCL on the date of opening of tender should have been paid/settled in full prior to the date of opening of tender. Price bids of bidders not complying with the requirement shall not be opened." A declaration in this regard shall be furnished by the bidder.
- (iii) The bidder shall have to submit pre-contract integrity pact in the format enclosed as **Annexure -I** on non-judicial stamp paper worth Rs.250/- duly signed by the bidder along with the Techno-Commercial bid. The validity of this integrity pact shall be from the date of its signing and extended up to 02 years or the complete execution of the order to the satisfaction of both the Buyer and the Bidder/Seller, whichever is later. In case Bidder is unsuccessful, this Integrity Pact shall expire after six months from the date of its signing. Declaration in this regard shall be furnished by the bidder.
- (iv) All document should be self attested by authorized signatory of the tender only.
- 6. The offered prices should be **variable as per IEEMA price variation formula** as per circular enclosed in Annexure-II of this specifications with base indices as issued by **IEEMA** in its circular one month prior to the due date of opening of TC bid. In case of any extension of due date the base date for working out the price variation shall be as per the original due date only. If delivery of material get delayed beyond contractual delivery period, price variation claimed shall be governed as detailed in clause 4.3.1 page 13 of section-I of this specifications.
- 7. The rates quoted in the price bid (in e-Bidding module only) shall be taken as final. However, in case of any mistakes / errors found in calculation for arriving total value of contract, corrections shall be made for the purpose of computation to decide relative position of bidder. Whereas while placement of order the lowest rate shall be taken.
- 8. It is not required to upload /attach scanned copy of price in soft/hard copy. Only the rates are to be filled in the item tab in e-bid in SAP SRM System (online e- bidding portal). The prices should be quoted through SAP SRM system should indicating unit ex-works price inclusive of packing & forwarding charges, GST, freight charges & any other charges should be quoted separately. The freight shall be on FIRM basis irrespective of whether the ex-works prices are firm or variable. The total F.O.R. destination price should be quoted in the relevant column.
  - 9. It will be presumed that the bidder has taken utmost care while quoting ex-works unit rates and tax rates in the price bid, which shall be considered as base for computation of total prices. However, in case of any arithmetical mistakes/errors in calculation for arriving at total FORD rate, arithmetic corrections shall be made as per the quoted basic rate/ tax rate for the purpose of computation to decide the relative position of bidder. However, for placement of order lower of the two values will be considered.
- 10. The tender offers of those Bidders, who do not agree to CSPTCL's payments terms, security deposit clause, liquidated damage clause, performance guarantee clause shall be liable for rejection.

- 11. The tender document shall be available for sale in the Office of CE (S&P) on payment of the cost of tender document through demand draft on all working days up to one day prior to the due date of opening. The tender document shall also be displayed in CSPTCL's website i.e. www.cspc.co.in and bidders may download the tenders from the website directly. In such case, the payment of cost of tender document shall be made through demand draft along with the tender. The details are given in clause No. 5 of Section-I (General Instruction to bidders).
- 12. The Company reserves the right to reject any or all tenders or accept any tender in full or part, considered advantageous to the C.S. Power Transmission Co. Ltd., whether, it is lowest or not without assigning any reason whatsoever.
- 13. The bidder should ensure following points in order to avoid rejection of tender:-
- i) DD towards EMD **OR self attested** proof of exemption valid on due date of opening is to be submitted in envelope –I. Please note that in case of exemption claimed from EMD by the SSI units registered under NSIC/ DIC, the copy of certificate issued by concerned authority along with enclosures, in which name of materials for which certificate has been issued should also be furnished. The name of material under tender should appear in this list. Further, the copy of certificate (each page) should bear original signature of the bidder. In case of non compliance of above instructions, tender shall be liable for rejection.

The bidder should furnish valid GST registration number and certificate alongwith EMD. In absence of GST registration the offer shall not be accepted.

- ii) DD toward tender document cost, in case tender has been downloaded from our website, is also to be placed inside envelope-I. In case of non compliance of above instructions tender shall be liable for rejection.
- iii) Techno-Commercial Bid is to be submitted inside envelope II. Envelope I&II should be inside the envelope III.
- 14. **INTEGRITY PACT**: The bidder shall have to submit pre-contract integrity pact in the format enclosed as **Annexure -I** on non-judicial stamp paper worth Rs.250/- duly signed by the bidder along with the Techno-Commercial bid. The validity of this integrity pact shall be from the date of its signing and extended up to 02 years or the complete execution of the order to the satisfaction of both the Buyer and the Bidder/Seller, whichever is later. In case Bidder is unsuccessful, this Integrity Pact shall expire after six months from the date of its signing. Declaration in this regard shall be furnished by the bidder.
- 15. **EXTREMELY IMPORTANT'- Bidders to note this to avoid rejection-**
- i) Attention of bidder is drawn to the fact that no additional/new documents will be allowed to be submitted after bid submission with only exception that clarifications/confirmations on the points which lack clarity after technocommercial evaluation may be obtained. Bidders are therefore, requested to exercise utmost care to make sure that all the documents required as per eligibility criteria/PQR/techno-commercial requirements of the tender are submitted with their bid on or before the date of bid submission. The bid submission date is a cut-off date for submission of all the documents required as per tender conditions/requirements and the bidder must adhere to this deadline.
- ii) It may also be noted that if a bidder has quoted 'NIL' deviation in the bid, this will have an overriding effect on any other conditions noted as deviations elsewhere in the bid and no correspondence will be made to withdraw such specific contradictory conditions".

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# **GENERAL INSTRUCTIONS TO BIDDERS**

- **SCOPE**: The tender specifications shall cover supply of tendered items as per the technical specifications mentioned in Section-II of the tender document.
- **2.A ACCEPTANCE OF OFFERS:-** While the bidder may make all out efforts to offer for the complete scope of tender, they may please note that the CSPTCL reserves the right to split the tender into different lots towards supply.

Bidders are advised to go through the contents of specific requirement for standard conditions very carefully and in absence of non-compliance/lapse, responsibility for the same will rest on bidder.

# 2. B CRITERIA FOR PLACEMENT OF ORDER: -

Separate orders will be placed for PSDF scheme and non PSDF scheme for 33/.04 KV 200 KVA & 630 KVA station Transformer as the accounting and execution of PSDF schemes are being dealt separately.

The entire tendered quantity will be offered to respective L-1 bidder. The following points will also be considered for placing the orders:-

- (i) The competitive rates quoted by each Bidder:- The original ranking based on FOR destination rates offered.
- (ii) If L-1 rate is not considered to be reasonable, negotiation will be held with the L-1 bidder only.

The tabulated quantity distribution under PSDF & Non-PSDF Scheme for placement of order will be as shown below:-

Sl. No.	Particular	Quantity Distribution of placement of order to L1 -Bidder	
110.		PSDF order	Non-PSDF
			order
1.	33/0.4 KV 200 KVA station transformer	08	07
2.	33/0.4 KV 630 KVA station transformer	02	00

- Bidders are requested to go through our Technical requirement carefully and it may be noted that furnishing of all information as required in various schedules enclosed is a must. In case any of the schedule, duly filled in, is not found furnished as required in the Schedules /Annexure the tender will be treated as incomplete, and will be liable for rejection without any correspondence by the CSPTCL.
- 3.1 **Extension Order**: The CSPTCL reserves the right to place extension order for supply of 50% additional quantity of material/equipments with associated accessories within six months from date of order and accordingly offered prices should be taken into account for these requirements.

For procurement of singular quantity of material/equipments the extension order clause shall be applicable for 100% additional quantity.

- 3.2 **Price reduction clause:** In case a fresh tender is issued for the same item before completion of supply against extension order and lower rates are received in the fresh tender. The lower rates received in the fresh tender shall be applicable to the quantity of extension order balance to be supplied also.
- **QFFERS:-**The offer for equipment/materials are required to be submitted in duplicate in separate sealed envelopes for which following details may be noted: -

# 4.1 **Part-I: EARNEST MONEY DEPOSIT:**

Please note that techno-commercial bid of tender will not be opened if earnest money is not deposited in form of demand draft for the value mentioned in tender clause No. 3 of "SPECIAL INSTRUCTIONS TO BIDDERS" in the tender, unless exempted by the CSPTCL.

The following are exempted from payment of EMD:-

- i) SSI units of Chhattisgarh state permanently registered with DIC. The registration should be permanent & should be specifically for the items quoted in the tender & valid on the date of opening of tender. Copy of certificate duly notarised should be submitted.
- ii) Small scale units registered with NSIC: In case of small scale units registered with NSIC, their registration certificates should be valid for the item under tender on due date of opening of Techno-commercial bid. In case the certificate is not valid on due date of opening the tender shall be liable for rejection. *Incomplete certificate should not be submitted. The list of items for which certificate is valid should also be furnished and name of item under tender should appear in this list failing which tender shall be liable for rejection.*
- iii) Fully owned State Govt /Central Govt. units, if 100% shares are held by the state Govt. concerned for which documentary evidence duly notarised must be furnished with offer.
- iv) Self attested photocopy of the NSIC/ SSI registration certificate for the tendered item should be furnished with the offer. In case of not having self attested photocopy, the original certificate should be produced at the time of opening for verification failing which their offer will be liable for rejection.
- v) The Bidders who come under any of above category must produce documentary evidence failing which offer shall be rejected.

It has been noticed that some bidders submit photocopy of a certificate. This is not acceptable. The photocopy of valid NSIC certificate should be self attested (i.e. copies attested by authorized signatory of the tender) failing which tender shall be liable for rejection.

vi) The valid GST registration number and certificate alongwith EMD should be furnished. In absence of GST registration the offer shall not be accepted.

In case the bidder withdraws his offer during the validity period or after placement of order, the Earnest Money shall be forfeited. EMD of unsuccessful bidders shall be returned on placement of order. EMD of bidder on whom order is placed shall be returned on acceptance of security deposit. No interest shall be paid on the EMD amount.

# **4.2** Part - II (A):- TECHNICAL BID:

4.2.1 In this part of bid, Bidder will have to furnish confirmation in regard to all our Technical requirements. The bid should clearly describe various technical particulars, as per details given in this specification. Also along with above information all details required in various schedules should be furnished so that the purchaser may be able to examine whether the offer submitted is technically acceptable or not. All relevant technical schedules viz. Guaranteed Technical Particulars, technical deviation etc shall be submitted with the bid.

The bidder shall have to submit pre-contract integrity pact in the format enclosed as Annexure-II on non-judicial stamp paper worth Rs. 250/- duly signed by the bidder along with the Techno-Commercial bid.

# 4.2.2 COMPLETENESS OF EQUIPMENT AND BOUGHT OUT ITEMS: -

The Bidders must furnish the following information along with technical bid.

- i) The responsibility for obtaining timely supplies of bought out items will rest on the Bidder and only on this basis, delivery period will be offered in the tender.
- ii) It may be noted in the case of damages/shortages due to improper packing or any other negligence; replacement shall be arranged within one month's time. If this is not done, date of delivery of such accessory will be treated as date of delivery of main equipment and full liquidated damage shall be recoverable from the Bidder on total cost of the material.
- For bought out items, responsibility for guarantee and obtaining immediate replacement in case any defects are noticed and in case defective supply of any item is reported will rest on the Bidder.
- iv) In case for attending to defect in any equipment or inspection/replacement of the equipment, which may be bought out item for the Bidder; services of engineer of original manufacturer is required, the same will be organized on immediate basis by the Bidder at his cost.
- 4.2.3 It would be obligatory on the part of Bidder to enclose a schedule of Technical deviation in Schedule III in case there are any deviations from our technical requirement. Even if no deviations are involved, a separate schedule of deviation for technical particulars should be enclosed wherein a certificate may be recorded that there are no deviations from all our technical requirements. In the event of non-compliance of this instruction, it may be noted that the CSPTCL reserves the right to reject all such offers without assigning any reason or without making any correspondence for obtaining any clarification.

# 4.3 Part - II (B) COMMERCIAL BID:

This bid should clearly spell confirmation in regard to various commercial terms and conditions for supply. Basis of price, acceptance of various important terms and conditions for supply and questionnaire for commercial terms and conditions for supply duly filled in, will form part of commercial bid. All commercial schedules viz. commercial terms & conditions, commercial deviations, bidders experience, details plan of manufacturing & testing shall be furnished with this bid.

It may please be noted that it is obligatory on the part of Bidder to comply with all our commercial terms and conditions. In particular, specific confirmation towards acceptance of following commercial terms and conditions should be furnished in the tender.

**4.3.1 PRICES & TAXES:** - The prices offered should be valid for 180 days from due date of tender in Indian Rupees only. Quoted prices should be **variable as per IEEMA formula** indicated in Annexure-I with base indices as issued by IEEMA in its circular one month prior to the due date of opening. In case of any extension of due date the base date for working out the price variation shall be as per the original due date only and the validity of offer shall be counted from the extended due date on which TC bid has been opened. The payment shall be initially done on the basis of base rates offered by the bidder subject to price adjustment to reflect changes in cost.

It is not required to upload/attach scanned copy of price in soft copy. Only the rates are to be filled in the item tab in e-bid in SAP SRM System (on line e-bidding portal). The prices should be quoted through SAP SRM System should indicating unit ex-works price inclusive of packing and forwarding charges ,GST, freight charges &any other charges should be quoted separately. The freight shall be on FIRM basis irrespective of whether the ex-works prices are firm or variable. It may please be noted that only statutory variations due to Govt. Regulation in the rate of GST shall be permitted by CSPTCL only within contractual delivery schedule. In case supplies against

the contract are affected late i.e. beyond contractual delivery period and rate of GST undergoes upward revision the payment will continue to be made only on the basis of rates prevailing during the contractual delivery period. However, in case the rate of statutory levies undergoes downwards revision than the delayed supplies beyond contractual delivery period will attract reduced rate of levies/ GST.

The following clause regarding price variation shall be applicable:-

The price adjustment shall be invoked by either party subject to the following conditions:-

- (i) The payment shall initially be done on the basis of base rate offered by the bidder subject to price adjustment to reflect the changes in the cost. The price variation shall be only applicable on Ex-works component of item.
- (ii) For calculation of price adjustment date on which the equipment is notified to be ready for inspection at the works of the manufacturer shall be taken as date of delivery provided the material is passed in the inspection and material is received in CSPTCL's Area Stores within 21 days from date of issue of dispatch instructions failing which actual date of receipt of materials shall be treated as date of delivery.
- (iii) In case of delay in supply beyond contractual delivery, price variation up to scheduled delivery date or actual date of delivery, whichever is advantageous to CSPTCL, shall be considered.
- (iv) The bidder shall submit price adjustment invoices for supplies positively within three months from date of supply whether positive or negative. However, price variation bills submitted after 06 months from the date of supply will not be entertained, but negative variation will be recoverable. The invoices should be supported with calculation of price variation along with documentary evidence of applicable indices. If price adjustment works out to be positive, the same is payable to contractor by CSPTCL and if it works out to be negative, the same shall be recovered from the contractor. The price variation bills should be submitted to Manager (Bills) O/o ED (Finance), CSPTCL, Raipur.
- (v) In case subsequent to issue of this enquiry IEEMA notifies either modification in prevailing formula or new formula the same shall be applicable.

# 4.3.2 TERMS OF PAYMENT:

100% payment along with all taxes and duties shall be made on production of necessary documents along with material receipt certificate (MRC) from our consignee normally within 30 days time.

The supplier should submit original Material Receipt Certificate issuedby the Area Stores along with copies of bill and other necessary documents to Manager (Bills), O/o ED (Fin.-Trans.) CSPTCL, Raipur for arranging payment.

4.3.3 **<u>DELIVERY PERIOD</u>**:- The delivery should be completed **within five months** from date of order.

The drawings should be submitted in three set within 10 days from date of issue of order.

The time for and date of delivery of the stores stipulated in the order shall be deemed to be the essence of the contract. In case of delay in execution of the order, the CSPTCL shall either:-

- (a) Recover from the supplier as agreed Penalty/liquidated damages at the rate mentioned in "**liquidated damages**" clause.
- (b) Purchase elsewhere on account and at the risk of the supplier, the stores not delivered or other of similar description or;
- (c) Cancel the contract.

4.3.4 <u>LIQUIDATED DAMAGE</u>: The time for and the date of delivery of the material stipulated in the order shall be deemed the essence of the contract. In case of delay in execution or non-execution of the order, the CSPTCL at its option shall recover from the supplier/contractor as agreed towards liquidated damages a sum of ½ % of the total price excluding taxes of any store not delivered per week or part thereof up to a maximum of 10% of contract value excluding taxes.

For this purpose date of offer (date of readiness of material for inspection shall be treated as date of offer) for inspection of material in the O/o CE (S&P) shall be considered as the date of delivery subject to condition that:-

- i) The intimation of readiness of material in respect of each lot should be made atleast 15 days in advance from the scheduled date of completion of supply.
- ii) Material should be delivered at stores within 21 days from issue of dispatch clearance. Please note that in case material is not received within 21 days from date of issue of dispatch instructions even though the delivery period exists **liquidated damages** shall be imposed on delay of dispatch.

The inspection offer, apart from postal/courier service shall be invariably **Faxed/E-mailed** to the CE (S&P) so that ambiguity does not arises for date of offer. In case the inspection offer is not received in the O/o CE (S&P) through Fax/E-mail the date of receipt of offer letter shall be taken as date of offer for inspection.

# 4.3.5 **GUARANTEE PERIOD:**

Equipments offered and associated accessories covered under the tender shall be guaranteed for performance and quality for a period of 30 months from the date of supply in Store or 24 months from date of commissioning whichever is earlier.

In case any defect in the equipment/material is found within guarantee period, the same will be replaced/repaired by you on free of cost basis. The replacement/repairing will have to be organized by you expeditiously and in any case within one month's time. If for the purpose of replacement/repairs, the equipment/material is required to be dispatched to your works, all charges towards transportation/insurance/ packing/ forwarding will have to be paid by you for to and fro dispatches. In this connection, please note that the following additional conditions will also be applicable in case any damages/defects are noticed in the equipments or its accessories supplied by you.

- i) If the material develops defect within guarantee period after installation at site, for the purpose of replacement/repairs & if the same is dismantled and taken out by us. In such cases actual cost of dismantling and replacement of the equipment/material will also be recoverable from you.
- (ii) In case it is observed that replacement/repairs of equipments or its accessories is not being provided to us within one month time from date of report of defect to you and proper response is not received from you, then apart from operating clause of liquidated damage (which provides for imposition of penalty/liquidated damages, risk purchase at your cost and cancellation of contract) the CSPTCL may also take suitable penal action against you which may include debarring you from all future business with the CSPTCL for a period which will be at the discretion of the CSPTCL.
- (iii) In case of replacement of material due to failure within guarantee period, the guarantee shall automatically get extended. In such case, the material shall be guaranteed as per the terms of guarantee with the commencement date of guarantee from the date on which replaced material has been received.

# 4.3.6 **SECURITY DEPOSIT:**

The supplier has to submit the security deposit in form of cash / Demand Draft / Bank Guarantee for value of order as indicated below to cover performance guarantee period for supply of equipments covered in this specification.

- (i) All outside state units shall be required to pay security deposit @10% of total order value.
- (ii) All the SSI units of CG having annual business (**FY 2018-19**) with successor companies of CSEB above Rs.50 Lacs, shall be required to pay Security deposit @7.5% of the value of order.
- (iii) In case of SSI units of CG whose annual business (**FY 2018-19**) with successor companies of CSEB is up to 50 Lacs, they will be required to pay Security deposit @ 5% of the value of order subject to maximum of Rs. 20,000/- (Twenty Thousand Only)

In support of annual business of SSI units of CG with successor companies of CSEB, the certificate of Chartered Accountant self attested should be furnished. **The bank guarantee shall be submitted within 30 days from date of order and shall be kept valid for guarantee period exceeding claim period of 6 months**. The bank guarantee shall be submitted on stamp paper worth Rs. 250/- or as per the prevailing legal requirements/ any other amount as per the C.G. State Stamp Duty Act and shall be from a Nationalized/ Scheduled Bank in the prescribed form of CSPTCL. No interest shall be paid by CSPTCL on the security deposit. In case of non-fulfillment of contractual obligations by the supplier the security deposit shall be forfeited.

# 4.3.7 TRANSIT INSURANCE & RISK:-

- Responsibility regarding covering of risk, during transit of material shall entirely be on the supplier. The CSPTCL, shall in any case, not bear the transit risk/transit insurance charges.
- b) Transit damages/ shortages/ losses shall be reported by the consignees within 30 days from the receipt of the consignments. Such damages/shortages/losses shall be repaired /replaced by the suppliers, free of cost within one month from the date of intimation by the consignee without waiting for the settlement from carrier or insurance company etc. If the supplier fails to do so the consignee(s) shall be free to get the repair work done fro other sources and they shall be free to recover the cost of such material/ expenses of repairs either from the supplier/balance bills or from the security deposit as deemed fit.
- c) While the necessary assistance shall be rendered by the consignee in lodging and processing the claims with carriers and the supplier's insurance underwriters, the responsibility shall rest with the supplier to immediately make good the shortages/ losses/ damages, without extra cost and without waiting for the settlement of the claim.
- d) Replacement of goods lost/ broken or damaged including loss to fire:Notwithstanding anything herein contained, the supplier shall undertake
  responsibility for the safe arrival of the material in good condition and without
  any loss or damage at the final destination and until the same is actually delivered
  to / received by the CSPTCL at its stores or other places of final destination. For
  this purpose, material carried by Railway or Road transport or other carriers shall
  be deemed to be so carried at the risk of the suppliers. In the case of transport
  damages/shortages, the payment shall be made only for the quantity received in
  good and working condition and consignee shall lodge claim with the

supplier/carrier with necessary documents of the same with carriers at supplier's end.

# 4.3.8 **DEVIATIONS**:-

It would be obligatory on the part of the Bidder to enclose a separate schedule of deviation, if there are any deviations from our commercial terms/conditions. Even if no deviations are involved, a separate schedule of deviation for commercial conditions should be enclosed wherein a certificate may be recorded that there are no deviations from all our commercial conditions. All tenders, wherein these conditions are not complied with, may run the risk of rejection without any correspondence from our side.

**4.3.9 UNSATISFACTORY PERFORMANCE:** The bidder who has supplied material earlier in CSPTCL and which has been found to be defective / not rendering satisfactory service within guarantee period and has not been replaced in the stipulated period shall not be considered for opening of price bid. (The cases reported as on date of NIT shall be considered).

# 4.4 Part - III PRICE BID:-

Price bid shall include submission of details of prices as per Schedule-I. It is not required to upload /attach scanned copy of price in soft /hard copy. Only the rates are to be filled in the item tab in e-bid in SAP SRM System (online e- bidding portal). The prices should be quoted through SAP SRM system should indicating unit ex-works price inclusive of packing & forwarding charges, GST, freight charges & any other charges should be quoted separately. However, the delivery schedule offered by bidder should be indicated in Part – II (B) "Commercial Bid". In case of any discrepancy is found suitable loading on prices will be considered for which responsibility will rest on the Bidder.

- **5. SUBMISSION OF OFFERS:-** The Bidders should submit their bids in three envelopes as under:-
  - (i) Envelope I :- (To contain Part-I of the tender document) This envelope should contain a covering letter with earnest money or earnest money exemption certificate as detailed in clause (4.1). The cover of the envelope should be suitably super scribed with the details of earnest money and tender number. The envelope should be sealed properly. The bidder should furnish valid GST registration number & certificate alongwith EMD. In absence of GST registration the offer shall not be accepted.

In case the tender document is downloaded from CSPTCL's Website the required cost of tender document in the form of MICR DD drawn in favour of Manager (RAO-HQ), CSPTCL, Raipur should also be kept inside this Envelope.

# Please note that the tender shall be liable for rejection if

i) EMD as per tender specification / proof in support of exemption of EMD as per clause 4.1 of part -I is not found inside the envelope.

# And

- ii) In case DD towards tender cost is not found inside this envelope in case tender document is downloaded from website.
- (ii) **Envelope II :-** (To contain Part-II of the tender document) This envelope should contain the Technical Bid and commercial bid complete in all respects, in duplicate and Integrity Pact as per proforma provided in the Annexure II.
- (iii) **Envelope III: -** This large envelope should contain all the above two envelopes. A certificate in the following format should be recorded on main envelope itself.

TENDER SPECIFICATION No. <u>TR-19/S&P/33</u> DUE FOR OPENING ON DTD.1 3/02/2020 FOR SUPPLY OF 33/0.4 KV 200 KVA & 630 KVA STATION TRANSFORMERS.

In case tender document is downloaded from website the envelope should also be Superscribed "DOWNLOADED FROM WEBSITE –TENDER COST FURNISHED"

# THIS ENVELOPE CONTAINS THREE ENVELOPES FOR:-

- 1. Envelop-I- Part -I of tender document i.e. Earnest Money Deposit, GST registration certificate & cost of tender document, if downloaded.
- 2. Envelop-II- Part II (A) i.e. Technical bid & Part II (B) i.e. Commercial Bid & Integrity pact as per proforma in Annexure I.

To,

The Chief Engineer (Store & Purchase),

C.S. Power Transmission Co. Ltd.,

Danganiya, RAIPUR (C.G.) 492 013

IT IS CERTIFIED THAT WE AGREE TO THE FOLLOWING CLAUSES OF TENDER SPECIFICATION:-

1	PAYMENT	AGREED
	TERMS	
2	SECURITY	AGREED
	DEPOSIT	
3	LIQUIDATED	AGREED
	DAMAGE	
4	PERFORMANCE	AGREED
	GUARANTEE &	
	INTEGRITY	
	PACT	
5	TECHNICAL	IT IS CERTIFIED THAT THE MATERIAL
	SPECIFICATION	OFFERED BY US IS STRICTLY AS PER
		TECHNICAL SPECIFICATION AS
		STIPULATED IN THIS TENDER AND IN
		CASE ANY DEVIATION IS OBSERVED
		LATER ON, WE SHALL BE SOLELY
		RESPONSIBLE AND THAT OUR TENDER
		SHALL BE LIABLE FOR REJECTION.

# Sign & Seal of Bidder

Tenders being submitted must be signed by a person holding a power of attorney authorizing him to do so. The notarized copy of power of attorney should be furnished. Tenders submitted on behalf of company registered under Indian Companies Act shall be signed by persons duly authorized to submit the tender on behalf of the company and shall be accompanied by notarized copy of resolution / abstract of Article of Association/special or general power of attorney.

#### 6. OPENING OF TENDERS:-

Part - I i.e. the envelope for Tender Cost (if downloaded), Earnest Money & GST registration certificate shall be first opened on the due date & time. Part-II i.e. "Technical & Commercial Bid" will be opened thereafter on the same day in respect of the bidders whose GST registration certificate is attached, EMD are found to be as per tender specification and tender cost is found to be as per tender .These bids will be

scrutinized and then we will take decision regarding opening of price bid in respect of successful Bidders. For the purpose of opening of price bid, a notice of not less than 7 days shall be given to the Bidders so that they may depute their representative for attending price bid opening. It may be mentioned that period of 7 days will be counted from the date of issue of fax intimation by us. Such intimation shall be given within a reasonable period from the date of opening of commercial and technical bids, and after its scrutiny. Only authorized representatives possessing necessary authority letter from the Bidder shall be allowed to participate in the tender.

# 7. COMPLIANCE WITH OTHER CONDITIONS:-

Although all other conditions have clearly been spelt out in the tender document, it is once again brought to the notice of Bidder that they should go through our tender document carefully and comply all other conditions also, like furnishing of type test report, furnishing of list of past supplies, performance certificate, profit and loss account, balance sheet for last five years etc., furnishing of drawing and write up for the manufacturing process. In the nut shell, the offer at the time of submission of Technical and Commercial bid itself should be complete in all respects. It should not be expected that in case of lack of any information, the CSPTCL will make any correspondence with the Bidder. The documents and details as called for in the tender must be submitted without making any reference to submission of such certificate against past order, tender or past experience of supplies with the Board/CSPTCL etc. All tenders wherein these conditions are not complied with may run the risk of rejection without correspondence from our side.

# 8. CHANGE OF QUANTITY:-

The purchaser reserves the right to vary the quantities of any or all the items as specified in the technical specifications/schedules as may be necessary based on requirement. No correspondence shall be entered into regarding quantity variation.

# 9. INSPECTION:-

- a) The CSPTCL shall have access at all times to the works and all other places of manufacture where the equipments are being manufactured and the supplier shall provide all facilities for unrestricted inspection of the suppliers works, raw material, manufacture of all the accessories and for conducting necessary tests as detailed herein.
- b) The successful supplier shall keep the purchaser informed in advance of the time of starting and of the progress of manufacture of equipment in various stages so that arrangements could be made for inspection.
- c) No material shall be dispatched from its point of manufacture unless the material has been satisfactorily inspected and tested by the CSPTCL's representative.
- d) The acceptance of any quantity of equipment shall in no way relieve the successful supplier from his responsibility for meeting all the requirements of this specification and shall not prevent subsequent rejection if such equipment are later found to be defective.
- e) The readiness of material for inspection should be intimated to O/o the CE (S&P), CSPTCL at least 15 days in advance so that Inspector can be deputed on scheduled date. In case material is not found ready on the intimated date of readiness, the CSPTCL reserves the right to recover from the supplier the charges.

# f) Random testing:

a) The CSPTCL's authorized Inspector shall test the samples selected at random from the material offered for inspection and tests as per relevant ISS/IEC standards shall be conducted at their works on the randomly selected samples. In

- case, the samples fail to withstand the required tests, the entire lot will be liable for rejection.
- b) However, inspection of material before dispatch or waiver of inspection will not relieve the supplier from his responsibility to supply the material strictly in accordance with the tender specification.
- c) If required, the Company may at its option test the samples selected at random from the supplies affected and/or may get the selected samples tested for acceptance / type test as per relevant ISS and Technical specifications at any standard laboratories as deemed fit e.g. CPRI, ERDA etc.
  - i) If the sample passes the test, charges towards testing & transportation shall be borne by CSPTCL & the lot shall be accepted.
  - ii) In case, the samples fail the required tests, supplier will be required to bear all the charges including transportation and taxes etc paid to standard laboratories e.g. CPRI, ERDA etc. towards conducting the tests and the entire lot will be liable for rejection. The supplier will have to replace/repair the whole rejected lot at his own cost.
  - iii) The replaced material, at CSPTCL's option shall be tested for acceptance tests in the Govt. standard laboratory as deemed fit on terms & conditions similar to first testing. If the sample passes the required test, the lot shall be accepted. The charges required for getting the tests conducted shall be borne by CSPTCL. If the sample again fails, the lot shall be rejected & the charges required for getting the tests conducted shall be borne by the supplier and action as per provision of contract shall be taken.
- g) **Stage inspection:** The CSPTCL reserves the right to carryout stage inspection during manufacture. The inspection will include verification of all raw materials, construction practice, quality control process and inspection of equipment before final assembly. Bidders will have to confirm that they will render all assistance for this purpose.

# 10. FALSE INSPECTION CALL:

In case, the material is not offered for inspection on the date of inspection offered by the firm, due to any reason the firm shall be required to remit a sum of Rs.5,000/- or actual expenditure incurred in the visit of the inspector whichever is more.

# 11. QUALITY ASSURANCE PLAN:

The supplier shall invariably furnish following information along with his offer, failing which the offer shall be liable for rejection. Information shall be separately given for individual type of equipment offered.

- (a) Statements giving list of important raw materials, name of sub-suppliers for the raw material, list of standards according to which the raw material are tested, list of tests normally carried out on raw material in presence of suppliers representative, copies of test certificates.
- (b) Information and copies of test certificates as in (a) above in respect of bought out items.
- (c) List of manufacturing facilities available.
- (d) Level of automation achieved and list of areas where manual processing exits.
- (e) List of areas in manufacturing process where stage inspections are normally carried out for quality control and details of such tests and inspections.
- (f) Special features provided in the equipment to make it maintenance free.
- (g) List of testing equipment available with the supplier for final testing of equipment specified and test plan limitation, if any, vis-à-vis the type/ special acceptance and routine test specified in the relevant standards. These limitations shall be very clearly brought out in schedule of deviations from specified test requirements.

# 12. TEST CERTIFICATE:-

Self attested copies of type test certificate from Govt. standard test laboratory/ NABL accredited laboratory / International laboratories like KEMA or equivalent shall be submitted along with the tender failing which the tender will be liable for rejection. The type test certificate of tendered item material shall not be more than 5 years old from date of NIT. Without required type test certificate the offer shall be liable for rejection.

# 13. POOL RATE/CARTEL:

Formation of bidder's cartel is strictly prohibited. "Cartel" includes an association of sellers, distributors, traders or service providers who by agreement amongst themselves, limit, control or attempt to control the production, distribution, sale or price of or trade in goods or provision of services, Here, "agreement" includes any arrangement or understanding or action, whether or not is formal or in writing.

Quoting same rates i.e. pool rate is not acceptable. In case the same rate is found to be quoted by more than two bidders, offers of all such bidders shall be out rightly rejected. However, if rates of two bidders are found to be same, quantity of orders to be placed on them will be reduced to half of the quantity a bidder is entitled to be allocated by virtue of their common rank. But, in case of multi-item tender, if rates of even two bidders for more than one item are found to be same, it will be considered as deliberate cartel and offers of both the bidders shall be rejected. Accordingly, all the bidders are advised to quote their own individual and most competitive rates.

Rated received in a tender will be minutely scrutinised to find out as to whether some or all bidders have entered in to any such "agreement". If CSPTCL is satisfied with the conclusion that some or all the bidders have formed a cartel, offers of all such bidders shall be rejected.

- **14. Amendment in specifications:** CSPTCL may revise or amend the specification and drawing, prior to the date notified for opening of tender. Such revision/ amendment, if any, will be communicated to all the bidders as amendment/ addendum to the invitation of tender and the same will be displayed in CSPTCL's website also.
- **Telex/ telegraphic/ fax bids:** Telex/ telegraphic/ fax offers will not be considered under any circumstances.
- **Mistakes in bids:** Rates should be quoted in both figures and words. In case of ambiguity between rates in figures and words, lower of the two shall be considered, as per provision given in clause 7 of Special Instruction to the bidder. Such offers can also be rejected.

In case the bidder makes contradictory statement in the TC bid, CSPTCL will have full right to interpret/ take that statement into consideration which will be in the intrest of CSPTCL.

- 17. Lump sum based bids: In case prices for some items or all items are given as lump sum, instead of unit prices as required in the tender specifications, CSPTCL can summarily reject such incomplete tender.
- **18**. **Printed terms & conditions in bids:** Supplier's printed terms and conditions will not be considered as forming part tender under any circumstance whatsoever.
- **19**. **Alterations/ correction in bids:** No alternations in the tender document will be permitted.
- **20**. **Incomplete bids:** Tender which is incomplete or obscure is liable for rejection.
- **21**. **Ambiguities in conditions of bids:** In case of ambiguous or self contradictory terms/ conditions mentioned in the bid, interpretations as may be advantageous to the CSPTCL may be taken without any reference to the tender.
- **22**. **Disqualification of bids:** A bid which gets opened before the due date as a result of improper or no indication has been given on the cover to indicate that it is a tender, will

be disqualified. Bidders will not be permitted to change the substance of his tender on post interpretation/ improper understanding grounds. This includes post tender price changes/ modifications etc. after opening of price bid. In such events, otherwise, that is, when a bidder does not comply, tender will be rejected.

- 23. Language of bids: All tenders should be made either in English or in Hindi only.
- **24**. **Canvassing of bids:** Tenders shall be deemed to be under consideration, after opening of tender/ bid till placement of order. During this period, the bidders or their authorised representatives or other interested parties are advised strongly in their own interest, to refrain from contacting by any means any of the CSPTCL's personnel or representative.

# 25. Cancellation of order:

- 25.1 The company may upon written notice of default, terminate contract in the circumstances detailed here under:
  - a) If in the opinion of the Company, the supplier fails to deliver the material within the time specified or during the period for which extension has been granted by the Company.
  - b) If in the opinion of the Company, the supplier fails to comply with any of the other provisions of this contract or material is found not in accordance with prescribed specifications and or the approved samples.
  - c) If as a result of stage inspection, it is revealed that material and / or workmanship is substandard, which is likely to affect the performance of the finished product, a notice would be served by the Company to the supplier to suspend further activities and to take urgent steps towards corrective measures, failing which the entire order would be cancelled.
- 25.2 In the event of such termination, the CSPTCL shall exercise its discretionary power as:
  - (a) To recover from the supplier the agreed liquidated damages as given in the clause No. 4.3.4 above.

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(b) To purchase form elsewhere after giving due notice to the supplier on account and at the risk of the supplier such stores/ material not so delivered or others of similar description in respect of consignment not yet delivered.

or

- (c) To cancel the contract reserving Company right to recover damages.
- 25.3 Notwithstanding that the power under clause (25.2 a, b & c) referred to above, are in addition to the rights and remedy available to the Company under the general law of India relating to contract.
- 25.4 In the event of risk purchase of stores of similar description, the opinion of the Company shall be final. In the event of action taken under clause 25.2 (a) or (b) above, the supplier shall be liable to pay for any loss, which the Company may sustain on that account but the supplier shall not be entitled to any saving on such purchases made against the default.
- 25.5 The decision of the CSPTCL shall be final regarding the acceptability of the stores supplied by the supplier and the Company shall not be required to give any reasons in writing or otherwise at any time for the rejection of the stores/ material.
- 25.6 In the event Company does not terminate the order as provided in clause 25.1 & 25.2 above, the supplier shall continue execution of this order, in which case he shall be liable to the CSPTCL for liquidated damages for the delay as per clause 4.3.4 until supplies are accepted.

# 26. Arbitration:

If at any time, any question, dispute or difference, whatsoever shall arise between the Purchase and the supplier, upon or in relation to or in connection with the Contract, either party may forth with give to the other, notice in writing of the existence of such question,

dispute or difference and the same shall be referred to the adjudication of two arbitrators, one to be nominated by the Purchase and the other to be nominated by the supplier or in the case of said arbitrators not agreeing, then to the adjudication of the Umpire to be appointed by the arbitrators, whose decision shall be final and binding on the parties and the provisions of the Indian Arbitration Reconciliation Act 1996, and of the rules there under and any statutory modification thereof shall be deemed to apply. The arbitrators or the Umpire, as the case may be, are bound to give a detailed speaking award assigning reasons for the findings.

Supplies under the contract shall be continued by the Contractor during the arbitration proceedings, unless otherwise, directed in writing by the Purchase or unless the matter is such that the work cannot possibly be continued until the decision of the arbitrators or of the Umpire, as the case may be is issued.

- **27**. **Jurisdiction:** Any dispute or difference, arising under, out of or about this tender/contract order shall be subject to exclusive jurisdiction of competent court at Raipur only.
- **28**. **Approval of Drawing**: The drawings of the ordered material should be submitted to this office within 10 days from the date of order for approval.
- **29. Limitation of Liability**: Except in cases of gross negligence or wilful Misconduct,
  - a) The contractor and CSPTCL shall not be liable to the other party for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the contractor to pay liquidated damages to the CSPTCL

#### **AND**

b) The aggregate liability of the contractor to CSPTCL, whether under the contract, in tort or otherwise, shall not exceed the total contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipments, or to any obligation of the contractor to indemnify CSPTCL with respect to patent infringement.

CHIEF ENGINEER (S&P) CSPTCL: Raipur

# <u>SECTION - II</u> TECHNICAL SPECIFICATIONS

#### 1. SCOPE:-

- 1.1 This specification covers design, engineering, manufacture, assembly, and testing before supply and delivery of the 33/0.415 kV 3 phase, 200 KVA & 630 KVA Station transformer complete with all fittings, accessories and associated equipment's for EHV S/s which are required for efficient and trouble free operation.
- 1.2 It is not the intent to specify completely herein all detail of the design and construction of equipments. However, the equipment shall conform in all respects to standards of engineering and shall be capable of performing in continuous operation up to the bidder's guarantee in a manner acceptable to the purchaser, who will interpret the meanings of drawing and specification and shall have the power to reject any work or material which, in his judgment, is not in accordance therewith. The equipments offered shall be complete with all components necessary for their effective and trouble free operation. Such components shall be deemed to be within the scope of bidder's supply, irrespective of whether those are specifically brought out in this specification and/or the commercial order or not.
- 1.3 The transformers shall conform in all respects to high standards of engineering, design, workmanship and latest revision of relevant standards at the time of offer and purchaser shall have the power to reject any work or material which, in his judgment, is not in full accordance therewith.

#### 2. STANDARDS

2.1 The transformers and associated accessories shall conform to the latest issues of standards as given below: -

Indian Standard No.	Title	
IS-2026 (Part I to V)	Power Transformers	
IS-3639	Fittings & Accessories for power transformers	
IS-335	Insulating oils for Transformers	
IS-2099	Bushing for alternating voltage above 1000V connections and auxiliary wiring	
IS-1886	Code of practice for installation and maintenance of transformers	
IS-2147	Degrees of protection	
IS-6600	Guide for loading of oil immersed transformers	

# 3. PRINCIPAL PARAMETERS:-

The Station Transformer offered should confirm to the following Technical specifications. The Technical specifications of the transformer should be filled in prescribed Performa as per Schedule-II. It may be noted that all particulars must be furnished. The offers not complying this requirement may be rejected.

S.No	Parameters	For 200 KVA	For 630 KVA
1.	Reference Standards	IS:2026/IEC 176	IS:2026/IEC 176
2.	Rating	200 KVA	630 KVA
3.	Type of Winding	Copper Wound	Copper Wound
4.	Service	Outdoor	Outdoor

5	(a) Rating Voltage:		
	i) HV Winding KV	33	33
	ii) LV Wind KV	0.433	0.433
	(b) Highest System Voltage		
	i) HV Winding KV	36	36
	, , , , , , , , , , , , , , , , , , , ,	30	30
6.	Rating Frequency	50 + 5%	50+5%
	Hz	-	
7.	Number of phase	3	3
8.	Rated current:		
	HV	3.5 A	11.02 A
	LV	278 A	840 A
9.	Connections:		
	a) HV Winding	Delta	Delta
	b) LV Winding	Star	Star
10.	Connection symbol	Dyn 11	Dyn 11
11.	Type of cooling	ONAN	ONAN
12.	Tap changing equipment		
	a) LV -variation	+5% to - 5%	+5% to -5 %
	b) Type	Off circuit Bridging	Off circuit Bridging
	c) No. of steps	4 steps, 5 position	4 steps, 5 position
13.	Guaranteed positive		
	sequence impedance at 75		
	Deg. C. with 100 % rating at	4 % tolerance +10%	5 % tolerance +10%
	Principal tap:		
14.	Temperature rise over an		
	ambient of 50 deg. C.		
	a) Top Oil ( if applicable )	40 Deg.C.	40 Deg.C.
	Deg. C.		
	b) Winding (by resistance	45 Deg.C.	45 Deg.C.
	measurement method)		
	Deg.C.		
15.	Guaranteed total losses at		
	rated voltage (excluding		
	cooler loose) on principal	2200 W	5200 W
	tap and at rated frequency.		
16.	Core Material	CRGO	CRGO
17.	Withstand time for three	3 Sec.	3 Sec.
	phase short circuit at		
	terminals (secs.)		
	NOTE:- The X'mer is		
	protected by means of DO		
	fuses as such the fault		
	clearance is not rapid. The		
	X'mer must be designed		
	with proper supports for LV		
	& HV winding with pre-		
	compressed board / permali		
	wood / filling with resin so		
	as to make the wdg		
	immovable.		
18.	No load current at rated	Less than 2 % of full	Less than 2 % of full

	voltage and rated frequency.	load current	Load current
19.	Insulation level	load current	Load current
17.	a) Separate source power		
	frequency voltage		
	withstand.		
	withstand.		
	i) HV Winding (KV rms)	95 KV	140 KV
	ii)LV Winding (KV	2 KV	2 KV
	rms)	211,	
	<b>b</b> ) Induced over voltage		
	withstand	66 KV	66 KV
	i) HV Windin (KV rms)	0.83 KV	0.83 KV
	ii) LV Winding (KV rms)		
	c) Full wave lightning		
	impulse withstand.		
	i) HV Winding (KVp)	250 KV	325 KV
	ii) LV Winding (KVp)		
20.	Over excitation withstand		
	time (sec.)	1 3 4'	134
	1)120 %	1 Minute	1 Minute
21.	b)150 %	3 Sec.	3 Sec.
21.	Proposed method of transformer shipment.	By Road Transport	
22.	Total quantity of oil.	Min. 500 Ltrs.	Please furnish
22.	Total qualitity of oil.	Willi. 300 Lus.	Ticase furnish
23.	Approximate dimensions		
25.	a)Tank enclosure	Please furnish	Please furnish
	(mm)		
	b)Overall L x B x H	Supplier must confirm	Supplier must
	(mm)	this point.	confirm this point.
	NOTE:- The size of tank	1	commin tins point.
	shall be so decided that a		
	minimum clearance of 75		
	mm is available at every		
	point between live parts and		
	tank. Minimum phase-to-		
	phase clearance at outer dia		
	of R & Y; Y & B HT coils		
	shall be 40 mm. This shall		
	be specifically checked at		
	the time of inspection.		
24.	Pressure release device: The	Please confirm	Please confirm
	X'mer shall be fitted with		
	pressure relief device which		
	will operate at 5 PSI and		
	reset at 1 PSI, in addition to		
25.	explosion vent.		
۷٥.	Tank plate gauge : Top & Bottom	Minimum 6 mm	Minimum 6 mm
	Side plates (with stiffeners)	Minimum 4 mm	Minimum 4 mm
26.	Top of tank	Slanted to avoid	Slanted to avoid
20.	1 op or tank	collection of rain	collection of rain
		water	water
	Oil Parameters	EHV Grade-I as	EHV Grade-I as
27	1 On Parameters	LETTY CHAUC-LAS	LELLY CHAUGELAS

		per ISS 335	per ISS 335
28.	Bushing characteristics.		
	a. Type	HV-52 KV (OIP	HV- 72.5 KV(OIP
	<b>b.</b> Power frequency	Bushing)	Bushing)
	withstand test voltage for1 minute for Wet & Dry (KVrms)	95 KVrms	140 KVrms
	c. Full Wave Impulse Withstand test voltage	250 KVp	325 KVp
	1.2/50 micro sec wave) <b>d.</b> Creepage distance	25 mm/KV	1813mm/KV
29.	Material used in Bushing rod	Brass	Brass
30.	Size of Bushing Rod.	HV- 30 mm LV - 30 mm(min)	HV- 30 mm LV - 30 mm(min)
31.	Details of provision for shrinkage of winding.	Pre shrinking will be done before final essentially during process.	Pre shrinking will be done before final essentially during process.
32.	Type of transformer tank.	Rectangular	Rectangular
33.	Arrangement of clamping of winding ends to bushing terminals.	Brazing through multi paper covered leads.	Brazing through multi paper covered leads.
34.	Radiators (minimum)	2 nos on each HV & LV side	2 nos on each HV & LV side
35.	Bucholz Realy	NIL	One no.
36.	PRV	NIL	One no.

4. Losses of the transformer: The total of no load and load(at 100 % load) losses of transformer at rated voltage at frequency and temperature of 75 deg C should not exceed the limits mentioned at sl. No. 15 of the above mentioned table. Please note that bids with losses higher than the above mentioned limits shall be treated as non –responsive and price bids of such bidders shall not be considered for opening without any correspondence in the matter. The bidders may however offer losses less than the upper limit of no load & load losses mentioned at sl. No. 15.

**Loss Capitalisation:**- While evaluating the offers, the loading of losses shall be done and comparative prices shall be arrived on the basis of total owning cost of the transformer as per the following formula:

 $TOC = IC + (A \times Wi) + (B \times Wc)$ , where

TOC = Total Owning Cost

IC = Initial cost (including taxes) of transformer as quoted by the

manufacturer

A factor = Cost of no load losses in Rs/watt = Rs. 375.00 B factor = Cost of load losses in Rs/watt = Rs.200.00

Wi = No load losses quoted by the manufacturer in watt
Wc = Load losses quoted by the manufacturer in watt

# (A) Core

(i) The core shall be stacked type:-The core shall be of high grade cold rolled grain oriented (C.R.G.O.) annealed steel lamination having low loss and good grain properties, coated with hot oil proof insulation, bolted together to the frames firmly to prevent vibration or noise. All core clamping bolts shall be effectively

insulated. The complete design of core must ensure permanency of the core losses with continuous working of the transformers.

Core clamping for C.R.G.O Wound core type transformers shall be as follows:

- 1. Core clamping shall be with top and bottom U- shaped core clamps made of sheet steel clamped.
- 2. M.S. core clamps shall be painted with oil-resistant paint.
- 3. Suitable provision shall be made in the bottom core clamp/bottom plate of the transformer to arrest movement of the active part.
- 4. Core shall be clamped by 16 mm diameter MS Tie rods.
- (ii) The grade of core laminations shall be M4 or better.
- (iii) The successful bidder, shall be required to submit the manufacture's test report showing the Watt Loss per kg and the thickness of the core lamination, to ascertain the quality of Core materials.
  - The purchaser reserves the right to get sample of the core material tested at any Government recognized laboratory.
- (iv) The transformer core shall not be saturated for any value of V/f ratio to the extent of 112.5% of the rated value of V/f ratio (i.e. 11000/50 or 22000/50) (due to combined effect of voltage and frequency) up to 12.5% without injurious heating at full load conditions and will not get saturated. The bidder shall furnish necessary design data in support of this situation.
- (v) Flux density:-
  - The maximum flux density in any part of the core and yoke at rated voltage and frequency shall be such that the flux density with + 12.5% combined voltage and frequency variation with rated voltage and frequency does not exceed 1.9 Tesla. Flux density should not be more than 1.55 Tesla at rated voltage and frequency.
- (vi) The No load current at rated voltage shall not exceed the percentage as given below.

The no load current of 200 KVA & 630 KVA transformer shall not exceed 2% the full load current and will be measured by energizing the transformer at rated voltage and frequency. Increase of 12.5 percent of rated voltage shall not increase the no load current by 5% of full load current. (As per IS 1180 (Part 1):2014) Number of steps of core shall be minimum of

Sr. No. Rating (KVA) Number of steps

1. 200 Min. 5 standard steps

2. 630 Min. 5 standard steps

# (B) Winding:-

The material for winding shall be copper.

- (i) Materials:- Double paper covered copper conductor shall be used for HV and LV winding.
- (ii) Current Density:- Current density for HV and LV winding should not be more than 2.8 amp/sq. mm for copper.
- (iii)L.V. Neutral formation shall be at top.

# (C) Insulation material & Clearances:

(i) Materials – Makes of Electrical grade insulating craft paper, Press Board, Perma wood/ Haldi wood insulation shall be declared in GTP by the bidder. The test reports for all properties as per relevant I.S. amended up to date shall be submitted during inspection.

(ii) The electrical clearance between the winding and body of the tank (between inside surface of the tank and outside edge of the windings) should not be less than 50 mm.

Minimum external clearances of bushing terminals

		33 KV
HV	Ph to Ph	350 mm
	Ph to earth	320 mm
LV	Ph to Ph	75 mm
	Ph to earth	40 mm

# D. Tank

The transformer tank shall be made up of prime quality M.S. sheets of rectangular shape. No other shape will be accepted. The transformer tank shall be of robust construction. All joints of tank and fittings should be oil tight and no bulging shall occur during service. The tank design shall be such that the core and windings can be lifted freely. The tank plates shall be of such strength that the completed transformer when filled with oil may be lifted bodily by means of the lifting lugs provided. Tank inside shall be painted by varnish or oil resistant paint. Top cover plate shall be slightly sloping; approximately 5 to 10 deg. towards HV bushing and edges of cover plate should be bent downwards so as to avoid entry of water through the cover plate gasket. The width of bend plate shall be 25 mm min. The top cover shall have no cut at point of lifting lug. The rectangular tank shall be fabricated by welding at corners.

In rectangular shape tanks, horizontal or vertical joints in tank side walls and its bottom or top cover will be not allowed. In addition the cover of the main tank shall be provided with an air release plug to enable air trapped within to be released.

Side wall thickness : 4 mm. (min.)
Top and bottom plate thickness : 6 mm.(min.)

- a) The pressure defection, when tank without oil is subjected to a vaccum of 500 mm of mercury for rectangular tank and 760 mm of mercury for round tank.
- b) The permanent deflection shall be as below.

(All figures in mm)

Horizontal length of flat plate	Permanent deflection
Up to and including 750	5.0 mm
751 to 1250 mm	6.5mm
1251 to 1750 mm	8.0 mm
Above 1751 mm	9.0mm

- c) The tank shall further be capable of withstanding a pressure of 0.8 kg/sq.cm and vaccum of 0.7 kg/sq.cm(g) without any deformation.
- d) The height of the tank shall be such that minimum vertical clearance op to the top cover plate of 120 mm is achieved from top yoke/from the top of tap changer if tap is provided.
- e) Reinforced by welded angle 50X75X5MM upto 15kVA & 70X75X5MM upto 2500 kVA on all the outside walls on the edge of tank to from two equal compartments.
- f) When transformer tank without oil is subject to air pressure of 35 KPa above atmospheric pressure for 30 min/ pressure test shall be performed carefully at the time of inspection to confirm the adequacy of reinforcement angle and gauge of the tank.
- g) All welding operations to be carried out by NMIG process. (Metal Inert Gas Welding).
- h) Lifting lugs: 4 nos. Welded heavy duty lifting lugs of MS plate of 12 mm thickness, suitably reinforced by vertical supporting flat of same thickness as of lug welded

- edgewise below the lug on the side wall, up to reinforcing angle and for top cover 8mm thickness.
- i) Pulling lugs: 4 nos. Welded heavy duty pulling lugs of MS plate of 8mm thickness shall be provided to pull the transformer horizontally.
- j) All bolts /nuts/ washers exposed to atmosphere shall be as follows:
  - a) Size 12 mm or below –stainless steel.
  - b) Above 12 mm ----steel with suitable finish like electro galvanized with passivation or hot dip galvanized.
- k) Top cover fixing bolts GI nut bolts of 1/2 "diameter with one plain washer shall be used for top cover fixing, spaced at 4" apart. 6 mm neoprene bonded cork oil resistance gaskets conforming to type B/C IS 4253 Part –II amended up to date will be placed between tank and cover plate.
- 1) Vertical clearance: the height of the tank shall be such that minimum vertical clearance up to the top cover plate of 120 mm is achieved from top yoke.
- m) The transformer tank shall be of adequate mechanical strength to withstand positive and negative pressures built up inside the tank while the transformer is in operation.
- n) The tank design shall be such that the core and windings can be lifted freely.
- o) All bolts /nuts/ washers exposed to atmosphere shall be as follows:
  - c) Size 12 mm or below -stainless steel.
  - d) Size above 12 mm ----steel with suitable finish like electro galvanized with passivation or hot dip galvanized.
- p) Thermometer pocket must be located at centre of top cover or high side of tank height for true valve of max top oil temperature.
- q) Air release plug must be placed at top cover of explosion vent pipe. Testing at lkg/sq.cm. carried out on sample at first lot to know correct material used for diaphragm and it must burst before pre determined pressure.

# (D) Off Load Taps:

a) The standard tapping ranges. When taps are provided, shall be as follows:

Winding tapped : HV Number of tap positions : 5

Voltage variations : (+) 5 percent to (-) 5 percent

b) Tapping Method: off circuit tap-changing arrangement shall be either by means of links or by means of an externally-operated switch with mechanical locking device and a position indicator. Arrangement for pad-locking shall be provided. (As per IS 1180 (part 1):2014 Clause 7.7.2)

Tap changing shall be carried out by means of an externally operated self position switch and when the transformer is in de – energized condition switch position no. 1 shall correspond to the maximum plus tapping. Each tap change shall result in variation of 2.0% in voltage. Provision shall be made for locking the taping switch handle in position. Suitable aluminum anodized plate shall be fixed for tap changing switch to know the position number of tap.

c) The transformer shall be capable of being operated without danger on any tapping at the raged KVA with voltage variation  $\pm$  10% corresponding to the voltage of that tapping.

d)

# (E) Efficiency:

The efficiency is the ratio of output in KW to the input in KW.

# Efficiency = $\underbrace{\text{(input in KW - Total losses in KW)}}_{\text{Input in KW}}$

The minimum Percentage Efficiency of station transformer shall be 98.25% Total loss comprise of No - load loss. & load loss

# **(F)** Head Dissipation:

- a) Heat dissipation calculation should be based on minimum measured total loss (No load at rated excitation + load loss at 100% loading maximum current tap concerted to 75 deg' c reference temperature) shall be supplied during temperature rise test. (if tapping provided at the lowest tap.)
- b) The heat dissipation by tank wall should be increase to appropriate value considering the climatic temperature rise.

# (G) Conservator:

- a) The total volume of conservator shall be such as to contain 10% of total quantity of oil. Normally 3% quantity of the total oil will be contained in the conservator. Dimension of the conservator shall be indicated on the General Arrangement Drawing. The capacity of the conservator tank shall be designed keeping in view the total quantity of oil and its contraction and expansion due to the temperature variations.
- b) Oil level indicator shall be provided on the side which will be with fully covered detachable flange with single gasket and tightened with MS nut -bolt. Level indication by color shall not be accepted.
- c) The inside diameter of the pipe connecting the conservator to the main tank shall be within 20 to 32 mm and it should be project into the conservator in such way that its end is approximately 20 mm above the total of the conservator so as to create a sump for collection of impurities. The minimum oil level (corresponding to (-) 5 deg.) should be above the sump level & filling hole (32 mm dia.) with cover.
- d) There shall be minimum –5 deg, normal 30 deg and maximum 98 deg marking on the oil gauge indicator of the conservator.
- e) Buchholz Relay:- Above 1 MVA transformer as per clause 20.1 V of IS 1180 is necessary.

#### (H)Breather:

- a) The material used for breather shall be only of Poly propylene.
- b) The dehydrating agent shall be silica gel. The volume of breather shall be suitable for 1kg silica gel confirming to IS 3401 up to 1 MVA and 2 kg for more than 1 MVA.

# (I) Terminals:

- a) The palm type terminal connector of adequate capacity shall be connected to L.V. side suitable to connect it to the Bus extension.
- b) On H.V. side the bimetallic connector to be provided with bimetallic lug of suitable rating.
- c) The rating of brass rod & copper rod for H.V. & L.V. shall be as per relevant IS for different capacity of Transformer. [Following (d) and (e) are indicative and shall be confirmed with relevant IS)]
- d) Brass rods 12 mm. Diameter for HT with necessary nuts. Check –nuts and plain thick tinned washer.

e) Tinned copper Rods of 20 & 30 mm diameter for 200 & 630 KVA X-mer for LT extension with suitable cable lugs, necessary nuts, check –nuts and plain thick tinned washer.

# (J) Bushings & Connections:

- a) The transformers shall be fitted on high voltage and low voltage sides with outdoor type bushings of appropriate voltage and current ratings. The high voltage bushings (3nos.) shall be provided with R-Y-B color coding marking & shall conform to IS 2099. The low voltage bushings (4 nos.) shall conform to IS 7421.
- b) The bushing shall be made in two parts. The outer bushing shall be of porcelain. The dimensions of the outer bushing shall confirm to the relevant Part/Section of IS 3347 depending on the voltage class. The internal bushing shall be of either porcelain or tough insulating material, like epoxy and shall have embedded stem,. Metal portion of the internal HV and LV bushing inside the tank shall remain dipped in oil in all operating conditions.
- c) Gaskets shall be made of synthetic rubber or synthetic rubberized cork resistant to hot transformer oil.
- d) For 33 kV class 52 KV & 72.5 KV shall be used respectively for 200KVA & 630 KVA X-mer and for 433 volts 1.0 kV bushing shall be used. Bushings of the same voltage class shall be interchangeable. Bushings with plain shed shall be as per relevant IS:3347 amended up to date. HV bushings shall mounted on the top of the transformer tank & LV bushings shall be mounted on side of the transformer tank.
- e) HV bushings shall be mounted on curvature shaped embossed plate and not on welded M.S. ring. Supporting clamps for LT cable should be provided to avoid the weight of cable on the Bushing.
- f) The minimum creep age distance for both HV &LV Bushings shall not be less than 25 mm per KV.

# (K) Internal Connections:

- a) H.V. Winding:
  - i) Leads should be taken through Bakelite tubes.
  - ii) Inter coil spacers between HV sections by dovetailed paper block min. 8mm to avoid displacement of coil during transportation.
  - iii) The copper strip/foil used for core earthing at two locations shall be tinned copper.
  - iv) In case of H.V. winding all jumpers from winding to bushing shall have cross section larger than winding conductor.
  - v) Inter coil connection shall be by crimping and brazing.
  - vi) In case of Copper Winding Delta joints shall be with crimping and Brazing only.
  - vii)Lead from delta joint shall be connected to bushing rod by brazing only.
- b) L.V. Winding:
  - i) For Copper windings crimping & silver brazing alloy shall be used.
  - ii) L.T. star point shall be formed of Copper flat of sufficient length. Lead from winding shall be connected to the flat by crimping and brazing.
  - iii) Firm connections of L.T. winding to bushing shall be made of adequate size of 'L' shaped flat. Connections of L.T. Coil lead to 'L' shape flat shall be by crimping and brazing. Alternatively 'L' shape lug of adequate capacity effectively crimped shall be acceptable.

iv) 'L' shape flat/lug shall be clamped to L.V. Bushing metal part by using nut, lock-nut and washers.

# (L) Fittings:

The Following standard fittings shall be provided.

1	Rating and diagram plate	1 no.
2	Earthing terminals with lugs.	2 no.
3	Lifting lugs	6 nos. (4 nos for tank
		and 2 nos for top plate of
		the transformer)
4	Oil filling hole with cap (on conservator)	1 no.
5	Drain valve – 32 mm for all T/Fs (it shall be	1 no.
	covered with metallic box spot welded to tank	
	IS554)	
6	Conservator with drain plug.	1 no.
7	The pipe connecting the conservator	1 no.
8	Thermometer pocket with cap	1 no.
9	Air release device	1 no.
10	Explosion vent with diaphragm	1 no.
11	Silica gel breather 1 kgor as per requirement	1 no.
12	Platform mounting channel (with hole	2 nos
	suitable for axle of rollers)	
13	Oil level gauge indicating 33 positions of oil	1 no.
	marked as below:	
	Minimum (-) d deg. C.	
	Normal 30 deg. C.	
	Maximum 98 deg. C.	
14	HT & LT bushing and terminal connectors	3 nos. Of HT bushing
		and 4 nos. of LT bushing
		shall be provided with
		3nos of brass nuts and 2
		plain brass washers.
15	Radiators	As per design
16	Pulling lugs	4 nos
17	Rollers	4 nos
18	Filter value (32 mm dia)	1 no.
19	Anti-theft stainless steel fasters with	4 nos
	breakaway nut at top cover	
20	Earthing terminals	2 nos
21	Jacking pads	4 nos

Any other fitting necessary for satisfactory performance.

# (M) Fasterners.

- 1. All bolts, studs, Screw threads, Pipe threads, bolt heads and uts shall comply with the appropriate Indian standards for metric threads or the technical equivalent.
- 2. Bolts or studs shall not be less than 6 mm in diameter except when used for small wiring terminals.
- 3. All nuts and pins shall be fitted in such a manner that in the event of failure of locking resulting in the nuts working loose and falling off, the bolt will remain in position.
- 4. All ferrous bolts, nuts and washers placed in outdoor positions shall be treated to prevent corrosion by hot dip galvanizing except high tensile steel bolts and spring

- washers, which shall be Electro, galvanized. Appropriate precautions shall be taken to prevalent electrolytic action between dissimilar materials.
- 5. Each bolt or stud shall project at least one thread but not more than three threads through the nut, except when otherwise approved for terminal board studs or relay stems. If bolts are provided at inaccessible places for ordinary spanners, special spanners shall be provided.
- 6. The length of screwed portion of the bolts shall be such that no screw thread may form part of a sheer plane between members.
- 7. Taper washers may be provided where necessary. Protective washers of suitable material shall be provided front and back of the securing screws.
- 8. LT should be of Pad type terminal.

# (N) Transformer Oil

Transformer oil to be used in all the Distribution transformers shall comply with the requirements of latest IS 335/1983 amended up to date thereof. In addition the oil should conform to 'Ageing characteristics' specified below for New Oil and Oil in Transformers. Type test certificates of oil being used shall be produced to EE (IW) at the time of stage inspection.

New oil – Ageing characteristics after accelerated ageing test 96 hrs at 115° C (open beaker method with copper catalyst):

- i. Specific Resistance (Resistivity)
- a) At 20° C :- 2.5x 10<sup>12</sup> Ohm-Cm (Min)
- b) At  $90^{\circ}$  C :-  $2.5 \times 10^{12}$  Ohm-Cm (Min)
- ii. Dielectric dissipation factor 0.20 (Max. tan delta) at 90° C
- iii. Total sludge value (%) by weight -0.05 (Max.)
- iv. The method of testing these aging characteristics is given in appendix –C of IS335 amended up to date.
- v. The Density of oil shall be maximum 0.89 g/cm3 at 29.5° C as per IS 1448.
- vi. Total acidity mg/KOH/gm-0.05 (Max.)
- vii. The important characteristics of the transformer oil after it is filled in the transformer (within 3 months of filling) shall be a follows:-

Sr. No.	Characteristics	Specifications
1.	Electric Strength (Breakdown voltage)	50 kV (Min)
2.	Dielectric dissipation factor (Tan Delta)	0.01 (Max)
	at 90 deg. C.	
3.	Specific Resistance (Resistivity) at 27	$10 \times 10^{12}$
	deg. C (ohm-cm)	
4.	Flash Point, P.M. (closed)	140° C (Min)
5.	Inter facial tension at 27° C.	0.04N/M (Min)
6.	Neutralization value (total acidity)	0.03Mg.KOH/gm
		(Max.)
7.	Water content PPM	30 (Max.)

# 6. CLEANING, PAINTING & FINISHING

- i. Before painting or filling with oil or compound, all parts shall be completely clean and free from rust, scale and grease, and all external surface cavities on casting shall be filled by metal deposition.
- ii. Interior of transformer tanks, and other oil filled chambers and internal structural steel work shall be cleaned of all scale and rust by shot-blasting or other approved method. These surfaces shall be painted with oil resisting varnish or paint.

- iii. Except for nuts, bolts and washers, which may have to be removed for maintenance purposes, all external surfaces shall be given a minimum of three coats of paint whereas all nuts, bolts and washers shall be given minimum of one coat paint after erection.
- iv. Primary coat shall be applied immediately after cleaning. Second coat shall be of an oil and weather resisting nature and preferably of a shade of colour easily distinguishable from the primary and final coats and shall be applied after the primary coat has been touched up where necessary. Final coat shall be of a glossy oil and weather resisting non-fade paint of shade no. 631 (light grey) of IS:5. Primer paint shall be ready made zinc chrome as per IS: 104, intermediate and final coats of paint shall be as per IS: 2932.
- v. All interior surfaces, except those which have received anticorrosion treatment, shall receive three coats of paint applied to the thoroughly cleaned metal surface. The final coat shall be of a light coloured anti condensation mixture.
- vi. Spacing of the bolts centres on the tank and its cover should be so designed that the gaskets when pressed after bolting leave no room for either ingress of moisture or leakage of oil during transport, normal service under full load and guaranteed temperature rise conditions.

# 8. DRAWINGS:-

The General arrangement drawing of Station transformer showing dimensions, material design used for different components, Core- coil assembly and name plate details alongwith guaranteed technical particulars etc and terminal connector of HV bushing should be furnished alongwith offer.

# 9. TESTING:-

**i. Type Test**:- The self attested copies of all the desired type test certificates conducted as per relevant standards i.e. ISS/ IEC **carried out at & issued** shall be submitted along with the tender for the similar rating of tendered material failing which the tender will be liable for rejection.

All the equipments offered shall be fully type tested as per relevant ISS or any equivalent acceptable International Standard & technical specification. The following type tests shall be carried out on the transformers in accordance with ISS: 2026/1977 as amended from time to time or any equivalent acceptable International Standard:

- a. Short Circuit test as per IS 2026 part IV(only for 630 KVA X-mer)
- b. Lightening Impulse Voltage withstand test.
- c. Temperature rise test
- d. Loss measurement
- **ii. Routine Test:** Before despatch each of completely assembled transformer shall be subjected to the following routine tests at the manufacturer's works in accordance with the details specified in IS: 1180/2026 Or any equivalent acceptable International Standards and as detailed below:
  - a. Measurement of winding resistance.
  - b. Ratio, polarity and phase relationships.
  - c. Impedance voltage.
  - d. No load loss and No load current.
  - e. Load loss at 50% &100% load.
  - f. Insulation resistance.
  - g. Separate Source voltage withstand.
  - h. Induced over voltage withstand.
  - i. Oil leakage test.
  - j. Pressure test.

**iii. Acceptance Test:-** Following tests shall be witnessed by the CSPTCL's representative at the works of the supplier.

All the routine tests as mentioned above shall be performed of offered lot. Besides above, following tests are to be performed on **one unit of each lot** offered for inspection.

- a. Verification of active parts alongwith weighment of unit.
- b. Spill Current measurement test.
- c. Test for Magnetic Balance shall be conducted by connecting the LV phase by phase to rated phase voltage and measurement of an, bn, cn voltage will be carried out.
- d. Test for over fluxing of core.
- e. Pressure test performed on one tank.
- f. Breakdown voltage test of transformer Oil.
- g. Heat run test **One unit** of the **ordered quantity**.

#### 10. INSPECTION: -

The purchaser shall have access at all times to the works and all other places of manufacture where the transformers are being; manufactured and the supplier shall provide all facilities for unrestricted inspection of the bidder's works, raw materials, manufacture of all the accessories and for conducting necessary tests.

No material shall be dispatched from its point of manufacture unless the material has been satisfactorily inspected and tested as per relevant ISS. The acceptance of any quantity of equipment shall in no way relieve the bidder of his responsibility for meeting all the requirement of this specification and shall not prevent; subsequent rejection if such equipment are later found to be defective. The bidder shall inform the purchaser in advance, about the readiness of equipment so that arrangement can be made for inspection.

#### 11. PACKING AND FORWARDING:-

- 11.1 The equipment shall be packed in crates suitable for vertical/horizontal transport as the case may be and suitable to withstand handling during transport and outdoor storage during transit. The bidder shall be responsible for any damage to the equipment during transit, due to improper and inadequate packing. The easily damageable material shall be carefully packed and marked with the appropriate caution symbol. Wherever necessary, proper arrangement for lifting, such as lifting hooks etc. shall be provided. Any material found short inside the packing cases shall be supplied by bidder without any extra cost.
- 11.2 Each consignment shall be accompanied by a detailed packing list containing the following information:
  - a) Name of the purchaser,
  - b) Details of consignment,
  - c) Destination,
  - d) Total weight of consignment,
  - e) Sign showing upper/lower side of the crate,
  - f) Handling & unpacking instructions,
  - g) Bill of material indicating contents of each packing.

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#### **SCHEDULE-I**

#### **SCHEDULE OF PRICES AND QUANTITY**

Sl No.	Particulars	Qty Nos	Unit Ex- works price including packing & forwarding in Rs./nos	Unit Freight charges in Rs/Nos	GST on (Exworks Price+ Freight charges) @ % (4+5)	Unit F.O.R. destn. price including GST, freight and other taxes in Rs/Nos (4+5+6)	Total Amount (in Rs)
1.	2.	3.	4.	5.	6.	7.	8.
1	200 KVA, 33/0.4 KV Station Transformer meeting Technical Requirements as per Section-II of tender document along with first filling of oil, HV/ LV Bushings, Terminal connectors & other accessories as described in clause (7), section-II of tender specifications	15 Nos.					
2	630 KVA, 33/0.4 KV Station Transformer meeting Technical Requirements as per Section-II of tender document along with first filling of oil, HV/ LV Bushings, Terminal connectors & other accessories as described in clause (7), section-II of tender specifications	02 Nos.					

#### Note:-

- **1.** The prices offered should be variable as per IEEMA with base indices as per the IEEMA circular prevailing as on first day of the month one month prior to the due date opening of tender.
- 2. Only statutory variation due to Govt regulations in GST during Contractual delivery period shall be paid by CSPTCL
- 3. The rates will be quoted through online e bidding portal (SAP SRM system) only. Price schedule duly filled in hard copy is not required

**Signature & Seal of Tenderer** 

## SCHEDULE -II SCHEDULE OF GURANTEED TECHNICAL PARTICULARS

S.N	Particulars	As specified	As specified	As offered
1	Name of Manufacturer			
2	Type of Transformer	Outdoor core type	Outdoor core type	
3.	Reference Standards			
4	Rating	200 KVA	630 KVA	
5.	Type of Winding	Copper wound	Copper Wound	
6.	Rating Voltage:			
	a)HV Winding KV	33 KV	33 KV	
	b)LV Wind KV	0.433 KV	0.433 KV	
7.	Rating Frequency Hz	50 Hz	50 Hz	
8.	Number of phase	3 phase	3 phase	
9.	Rated current: HV	3.5 A	11.02 A	
	LV	278A	840 A	
10	Connections:			
	a)HV Winding	Delta	Delta	
	b)LV Winding	Star	Star	
11.	Connection symbol	Dyn11	Dyn11	
12.	Type of cooling	ONAN	ONAN	
13.	Tap changing equipment	Paragon or	Paragon or	
	a)Manufacturer	equivalent	equivalent	
	b)Lv -variation	+5% to - 5%	+5% to - 5%	
	c)Type	Off circuit	Off circuit	
			Bridging	
	d)No. of steps	4 steps 5 position	4 steps, 5 position	
14.	Guaranteed positive sequence			
	impedance at 75 Deg. C. with 100 %	4% tolerance +	5 % tolerance	
	rating at Principal tap:	10%	+10%	
15.	Temperature rise over an ambient of 50 deg. C.			
	a)Oil temperature Deg. C.	40 Deg C.	40 Deg.C.	
	b)Winding (by resistance measurement method) Deg. C.	45 Deg C	45 Deg.C.	
16.	Guaranteed losses at rated voltage (excluding cooler loose) on principal tap and at rated frequency.(bidder should offer no load loss & load loss	Total≤ 2200W	Total ≤ 5200W	
	separately) a)No load loss or iron loss. b)Copper loss at full load at 75 Deg. C. c)Total losses			
17.	Core Material	CRGO	CRGO	
18.	Withstand time for three phase short circuit at terminals (secs.) NOTE:- The Xmer is protected by means of DO fuses as such the fault clearance is not rapid. The Xmer must be designed with proper supports for	3 sec.	3 Sec.	

		<u> </u>	Ţ
	LV & HV winding with pre-		
	compressed board / permali wood /		
	filling with resin so as to make the wdg		
10	immovable.	T 1 20/ C	I 1 20/ 6
19.	No load current at rated voltage and	Less than 2 % of	Less than 2 % of
	rated frequency.	full Load current	full Load current
20.	Insulation level		
	a)Separate source power frequency		
	voltage withstand.	051/31	140 1/37
	i)HV Winding (KV rms)	95KV 2KV	140 KV 2 KV
	ii)LV Winding (KV rms)	2K V	2 K V
	b)Induced over voltage withstand i)HV Winding (KV rms)	66KV	66 KV
	ii)LV Winding (KV rms)	0.83KV	0.83 KV
	n)Lv winding (Kv mis)	0.63K V	0.83 KV
	c)Full wave lightning impulse		
	withstand.		
	i) HV Winding (KVp)	250KV	325 KV
0.1	ii) LV Winding (KVp)		
21.	Regulation at full load at 75oC	D1 C 11	DI C : I
	a)At unit power factor (percent)	Please furnish	Please furnish
22	b)At 0.8 power factor (Percent)  Over excitation withstand time (sec.)		
22	a)120 %	1 minute	1 Minute
	b)150 %	3 sec.	3 Sec.
23	Proposed method of transformer	By road transport	By Road
	shipment.		Transport
24	Total quantity of oil.	Min.500 ltr.	Min. 500 ltr.
25	Efficiency at 75 Deg.C	Please furnish	Please furnish
	a)At full load (%)	Supplier must	Supplier must
	b)At ¾ full load (%)	confirm this	confirm this point
2.5	c)At ½ full load (%)	point	DI C
26.	Approximate dimensions	Please furnish	Please confirm
	a)Tank enclosure (mm)		
	b)Overall L x B x H (mm)  NOTE:- The size of tank shall be so	Supplier must	Supplier must
	decided that a minimum clearance of	confirm this	confirm this point
	75 mm is available at every point	point	Point
	between live parts and tank. Minimum	1	
	phase to phase clearance at outer dia of		
	R & Y; Y & B HT coils shall be 40		
	mm. This shall be specifically checked		
	at the time of inspection.		
27.	Untanking height	Please furnish	Please furnish
28.	Approximate weight	Please furnish	Please furnish
	a)Core and winding (Kg.)		
	b)Tank fittings (Kg.)		
	c)Oil (Kg.)		
20	d)Total weight (Kg.)	Which will	Which will
29.	Pressure release device: Make, operating & resetting Pressure in PSI	Which will operate at 5PSI &	operate at 5PSI &
	operating & resetting Fressure in FSI	re-set at 1PSI in	re-set at 1PSI in
		addition to	addition to
		audition to	audition to

		explosion vent	explosion vent
30.	Tank plate gauge:	Minimum 6 mm	Minimum 6 mm
	i)Top & Bottom	Minimum 4 mm	Minimum 4 mm
	ii)Side plates (with stiffeners)		
31.	Top of tank	Slanted to avoid	Slanted to avoid
		collection of rain	collection of rain
		water	water
22	CUP	EIII. C. I	DINI C. 1. I
32.	Oil Parameters	EHV Gr.I as per	EHV Grade-I as
22	D. I	ISS 335	per ISS 335
33.	Bushing characteristics.	III. FOUL OID	III. 72.5 KM OID
	a. Type	HV- 52KV OIP	HV- 72.5 KV OIP
		Bushing	Bushing
	<b>b</b> Power frequency withstand test	95KVrms	140KVrms
	voltage for 1 min. for dry/wet	) JIK VIIIIS	T TOTE VIIIIS
	c. Full wave impulse voltage withstand	250KVp	325KVp
	test voltage(1.2/50 micro sec wave)	25011 1 p	32311 V P
	d. Creepage distance	25mm / KV	1813mm / KV
34.	Material used in Bushing rod	Brass/copper	Brass/copper
35.	Size of Bushing Rod.	HV – 30mm	HV- 30 mm
		LV - 30mm(min)	LV - 30 mm(min)
36.	Details of provision for shrinkage of	Pre shrinking	Pre shrinking will
	winding.	will be done	be done before
		during process	final essentially
		before final	during process.
		inspection	
37.	Type of transformer tank.	Rectangular	Rectangular
38.	Arrangement of clamping of winding	Brazing though	Brazing through
	ends to bushing terminals.	multi paper	multi paper
	_	covered leads	covered leads.
39	Please confirm that Explosion vent is	Please confirm	2 nos on each HV
	provided in the Xmer	(Yes/No)	& LV side
40	No. of radiators	Min. 2 nos on	Min. 2 nos on
		each HV & LV	each HV & LV
		side	side
41	Bucholz relay	NIL	One no.
42	PRV	NIL	One no.

Signature of Bidder

Name :

Company :

#### **SCHEDULE-III**

#### SCHEDULE OF TECHNICAL DEVIATIONS

We/I have carefully gone through the Technical specification and the General condition of contract and we/I have satisfied ourselves/myself and hereby confirm that our/my offer strictly conforms to the requirements of technical specification and General conditions of contract except for the deviations, which are given below:-

S.No.	DESCRIPTIONS & CLAUSE NO. OF THE SPECIFICATION & PAGE NUMBER	STIPULATION IN SPECIFICATION	DEVIATION OFFERED.	REMARKS REGARDING JUSTIFICATION OF THE DEVIATION
1	2	3	4	5

Except for aforesaid deviations, the entire order, if placed on us, shall be executed in accordance with your specification and any other conditions, variation/deviation etc. if found elsewhere in our offer should not be given any considerations while finalising the tender.

Date SIGNATURE OF BIDDER

Place NAME

**DESIGNATION** 

(SEAL)

#### SCHEDULE - IV

#### SCHEDULE OF COMMERCIAL DEVIATIONS

We/I have carefully gone through the Commercial requirements of specification and the General condition of contract and we/I have satisfied ourselves/myself and hereby confirm that our/my offer strictly conforms to the requirements of commercial specification and General conditions of contract except for the deviations, which are given below:-

S.No.	DESCRIPTIONS & CLAUSE NO. OF THE SPECIFICATION & PAGE NUMBER	STIPULATION IN SPECIFICATION	DEVIATION OFFERED.	REMARKS REGARDING JUSTIFICATION OF THE DEVIATION
1	2	3	4	5

Except for aforesaid deviations, the entire order, if placed on us, shall be executed in accordance with your specification and any other conditions, variation/deviation etc. if found elsewhere in our offer should not be given any considerations while finalising the tender.

Date SIGNATURE OF BIDDER

Place NAME

**DESIGNATION** 

(SEAL)

### **SCHEDULE-V**

## **COMMERCIAL INFORMATION**

Strike-off, whichever is not applicable

1.i)	Whether purchased from this office or downloaded?	Yes/No
ii)	If down loaded, whether tender cost furnished? Details	Yes/No
	of MICR DD for tender cost	
iii)	Earnest Money details	
a)	Amount of EMD and full details	
b)	If exempted, state whether bidder is	SSI Unit of CG / Small scale unit registered with NSIC/ Fully owned State Central Govt. Unit.
c)	Reference of documentary evidence regarding exemption enclosed	Yes /No
2.	Whether the offer is valid for 180 days from the date of opening of commercial /technical bid	Yes /No (If no, state validity period)
3. (A)	State whether the quoted prices are variable as per IEEMA formula with base indices as per IEEMA circular issued one month prior to due date of opening as per Annexure-II.	Yes /No
(B)	Whether agreeable to clause 4.3.1 (iii) page 15 The bidder shall submit price adjustment invoices for supplies positively within three months from date of supply whether positive or negative. However, price variation bills submitted after 06 months from the date of supply will not be entertained, but negative variation will be recoverable. The invoices should be supported with calculation of price variation along with documentary evidence of applicable indices. If price adjustment works out to be positive, the same is payable to contractor by CSPTCL and if it works out to be negative, the same shall be recovered from the contractor	
4.	Option of Modvat Benefit. Whether benefit of Modvat has been taken into consideration in quoting the rate in price bid	Yes/No
5.	Rate of GST (Good & Service Tax)	
6.	PAYMENT TERMS:- Whether CSPTCL's terms of payment is acceptable to the bidder (if no state conditions)	Yes /No
7.	DELIVERY PERIOD:- Commencement of supplies from date of order.	Yes /No
8.	LIQUIDATED DAMAGE CLAUSE Whether agreeable to CSPTCL's liquidated damage clause	Yes /No
9.	GUARANTEE PERIOD:- The station transformer supplied shall be guaranteed for performance and quality for a period of 30 months from the date of supply in Store or 24 months from date of commissioning whichever is earlier.	Yes /No

10.	SECURITY DEPOSIT	Yes /No
a.	Whether agreeable to furnish CSPTCL's Standard security deposit	
	@ 10% of value of order for satisfactory execution of the order and	
	to cover guarantee period	
b.	If not, indicate deviation specifically	
11.	EXTENSION ORDER:-	Yes /No
	Whether you are agreeable to accept extension order for 50% of	
	qty. on the same rates, terms & condition if any extension order is	
	placed within 6 months from the date of placement of detailed order.	
12.	Please mention whether rates offered are applicable for	Yes /No
	part quantities.	100/110
13.	Mention Turnover of the firm for last five years	
	(Enclose balance sheets in support)	
(a)	2014-15	
(b)	2015-16	
(c)	2016-17	
(d)	2017-18	
(e)	2018-19	
14.	Year of start of manufacture of offered equipment/	
	material.	
15.	Whether C.A. audited notarized copy of net worth for	
	the last three financial years is submitted	
16.	Whether submitted <b>self attested</b> copy of undertaking	
	duly certified by CA stating that a) All interest payment	
	obligations on outstanding debentures have been	
	discharged and no such payment as on 31.12.2019	
	is/was outstanding / overdue. b) Company is presently	
	not in default in repayment of bank loan and has not	
	been taken up for CDR/SD	
17.	Whether submitted Pre – contract Integrity pact	
18.	Whether your firm is registered under MSME	Yes/No

NOTE:-Scanned copy of this schedule is to be uploaded in e-bidding portal

Date	SIGNATURE OF BIDDER
Place	NAME
	DESIGNATION
	(SEAL)

### SCHEDULE - VI

## SCHEDULE OF BIDDER'S EXPERIENCE

Bidder shall furnish here a list of similar jobs executed by him. A reference may be made by the purchase to them in order be considers such a reference necessary.

S.No.	Name & Description of work. (adequate details to be given certifying the work done)	Order No. & date	Period & date of supply	Client or order placing authority	Person to whom reference to be made

Date SIGNATURE OF BIDDER
Place NAME
DESIGNATION
(SEAL)

## SCHEDULE-VII

## **Details of Manufacturing**

Name of the manufacturer, place of manufacturer, testing and inspection.

S.No.	Description	Manufacturer	Place of manufacturer	Date of testing and inspection

SIGNATURE OF BIDDER
NAME
DESIGNATION
(SEAL)

## SCHEDULE-VIII GENERAL INFORMATION

## The bidder shall furnish general information in the following format:

			<b>.</b>
1.	Name of the firm		
2.	Head office address		
3.	Works address		
4.	Contact person		
5.	Mobile No of Contact person		
6.	Telephone no. office		
7.	Telephone No. residence		
8.	Fax No.		
9.	Email ID		
10	. PF/ESIC Registration number		
Date			Name & seal of the tendering company
		* * * * * *	

ANNEXURE – I

19/S&P/33 Page 48 of **57 CE(S&P)** 

#### PRE-CONTRACT INTEGRITY PACT

#### 1. **GENERAL**

- 1.2 WHEREAS the BIDDER is a Private Company/Public Company/ Government undertaking/Partnership/Registered Export Agency, constituted in accordance with the relevant law in the matter and the BUYER is a power company an undertaking of Govt. of CG, performing its function on behalf of the Government of Chhattisgarh.

#### 2. <u>OBJECTIVES</u>

- NOW, THEREFORE, the BUYER and the BIDDER agree to enter into this pre-contract agreement, hereinafter referred to as Integrity Pact, to avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the Contract to be entered into with a view to:-
- 2.1. Enabling the BUYER to obtain the desired Stores/Equipment/Work/Service at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement, and
- 2.2. Enabling BIDDERs to abstain from bribing or indulging in any corrupt practices in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing any corrupt practices and the BUYER will commit to prevent corruption, in any form, by its official by following transparent procedures.

#### 3. COMMITMENTS OF THE BUYER

The BUYER commits itself to the following:-

- 3.1 The BUYER undertakes that no official of the BUYER, connected directly or indirectly with the contract, will demand, take promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the BIDDER, either for themselves of for any person, organization or third party related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting of implementation process related to contract.
- 3.2 The BUYER will, during the pre-contract stage, treat BIDDERs alike, and will provide to all BIDDERs the same information and will not provide any such information to any particular BIDDER which could afford an advantage to that particular BIDDER in comparison to the other BIDDERs.
- 3.3 All the officials of the BUYER will report the appropriate Government office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.

In case any such preceding misconduct on the part of such official(s) is reported by the BIDDER to the BUYER with the full and verifiable facts and the same prima facie found to be correct by the BUYER, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by the BUYER and such a person shall be debarred from further dealings related to the contract process. In such a case while an enquiry is being conducted by the BUYER the proceedings under the contract would not be stalled.

#### 4. COMMITMENTS OF BIDDERS

The BIDDER commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract or post-contract stage in order to secure the contract or in furtherance to secure it and in particular commit itself to the following:-

- 4.1. The BIDDER will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BUYER, connected directly or indirectly with the biding process, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the contract.
- 4.2. The BIDDER further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage, or inducement to any official of the BUYER or otherwise in procuring the Contract of forbearing to do or having done any act in relation to the obtaining or execution of the contract or any other contract with the CSPTCL for showing or forbearing to show favour or disfavour to any person in relation to the contract or any other contract with the CSPTCL.
- 4.3. The BIDDER further confirms and declares to the BUYER that the BIDDER in the original Manufacture/Integrator/Authorized government sponsored export entity of the stores and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the BUYER or any of its functionaries, whether officially or unofficially to the award of the contract to the BIDDER, nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation.
- 4.4. The BIDDER, either while presenting the bid or during pre-contract negotiations or before signing the contract, shall disclose any payment he has made, is committed to or intends to make to officials of the BUYER or their family members, agents, brokers or any other intermediaries in connection with the contract and the details of services agreed upon for such payments.
- 4.5. The BIDDER will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.
- 4.6. The BIDDER will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.
- 4.7. The BIDDER shall not use improperly, for purpose of competition or personal gain, or pass on to others, any information provided by the BUYER as part of the business relationship, regarding plans, technical proposal and business details, including information contained in any electronic data carrier. The BIDDER also undertakes to exercise due and adequate care lest any such information is divulged.
- 4.8. The BIDDER commits to refrain from giving any compliant directly or through any other manner without supporting it with full and verifiable facts.
- 4.9. The BIDDER shall not instigate or cause to instigate any third person to commit any of the acts mentioned above.

#### 5. PREVIOUS TRANSGRESSION

- 5.1. The BIDDER declares that no previous transgression occurred in the last three years immediately before signing of this Integrity Pact with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India that could justify BIDDER's exclusion from the tender process.
- 5.2. If the BIDDER makes incorrect statement on this subject, BIDDER can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

#### **6.** EARNEST MONEY (SECURITY DEPOSIT)

- 6.1. Every BIDDER while submitting commercial bid, shall deposit an amount as specified in RFP as Earnest Money/Security Deposit, with the BUYER through any of the following instruments:
  - (i) Bank Draft or Pay Order in favor of.....
  - (ii) A confirmed guarantee by an Indian Nationalized Bank, promising payment of the guarantee sum to the....... (BUYER)................. on demand within three working days without any demur whatsoever and without seeking any reasons whatsoever. The demand for payment by the BUYER shall be treated as conclusive proof of payment.
  - (iii) Any other mode or through any other instrument (to be specified in the RFP).
- 6.2. The Security Deposit shall be valid up to complete conclusion of the contractual obligations to the complete satisfaction of both the BIDDER and BUYER, including warranty period, whichever is later.
- 6.3. In the case of successful BIDDER a clause would also be incorporated in the Article pertaining to Performance Bond in the Purchase Contract that the provisions of Sanctions for violation shall be applicable for forfeiture of Performance Bond in case of a decision by the BUYER to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.
- 6.4. No interest shall be payable by the BUYER to the BIDDER on Earnest Money/Security Deposit for the period of its currency.

#### 7. SANCTIONS FOR VIOLATIONS

- 7.1. Any breach of the aforesaid provisions by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER) shall entitle the BUYER to take all or any one of the following actions, wherever required:-
- (i) To immediately call off the pre contract negotiations without assigning any reason or giving any compensation to the BIDDER. However, the proceedings with the other BIDDER(s) would continue.
- (ii) To forfeit fully or partially the Earnest Money Deposit (in pre-contract stage) and/or Security Deposit/Performance Bond (after the contract is signed), as decided by the BUYER and the BUYER shall not be required to assign any reason therefore.
- (iii) To immediately cancel the contract, if already signed, without giving any compensation to the BIDDER.
- (iv) To recover all sum already paid by the BUYER, and in case of the Indian BIDDER with interest thereon at 2% higher than the prevailing Prime Lending Rate while in case of a BIDDER from a country other than India with Interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the BIDDER from the BUYER in connection with any other contract such outstanding payment could also be utilized to recover the aforesaid sum and interest.
- (v) To encash the advance bank guarantee and performance bond/warranty bond, if furnished by the BIDDER, in order to recover the payments, already made by the BUYER, along with interest.
- (vi) To cancel all or any other contracts with the BIDDER and the BIDDER shall be liable to pay compensation for any loss or damage to the BUYER resulting from such cancellation/rescission and the BUYER shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER.
- (vii) To debar the BIDDER from participating in future bidding processes of the CSPTCL for a minimum period of five years, which may be further extended at the discretion of the BUYER.
- (viii) To recover all sum paid in violation of this Pact by BIDDER(s) to any middlemen or agent or broken with a view to securing the contract.
- (ix) In cases where irrevocable Letters of Credit have been received in respect of any contract signed by the BUYER with the BIDDER, the same shall not be opened.

(x) If the BIDDER or any employee of the BIDDER or any person action on behalf of the BIDDER, either directly or indirectly, is closely related to any of the officers of the BUYER, or alternatively, if any close relative of an officer of the BUYER has financial interest/stake in the BIDDER's firm, the same shall be disclosed by the BIDDER at the time of filling of tender. Any failure to disclose the interest involved shall entitle the BUYER to rescind the contract without payment of any compensation to the BIDDER.

The term 'close relative' for this purpose would mean spouse whether residing with the Government servant or not, but not include a spouse separated from the Government servant by a decree or order of a competent court; son or daughter or step son or step daughter and wholly dependent upon Government servant, but does not include a child or step child who is no longer in any way dependent upon the Government servant or of whose custody the Government servant has been deprived of by or under any law; any other person related, whether by blood or marriage, to the Government servant or to the Government servant's wife or husband and wholly dependant upon Government servant.

- (xi) The BIDDER shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the BUYER, and if he does so, the BUYER shall be entitled forthwith to rescind the contract and all other contracts with the BIDDER. The BIDDER shall be liable to pay compensation for any loss or damage to the BUYER resulting from such rescission and the BUYER shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER.
- 8. The decision of the BUYER to the effect that a breach of the provisions of this pact has been committed by the BIDDER shall be final and conclusive on the BIDDER. However, the BIDDER can approach the Monitor(s) appointed for the purpose of this Pact.

#### 9. <u>INDEPENDENT MONITORS</u>

- 8.1. The BUYER will appoint Independent Monitors (hereinafter referred to as Monitors) for this Pact.
- 8.2. The task of the Monitors shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this Pact.
- 8.3. The Monitors shall not be subject to instructions by the representatives of the parties and perform their functions neutrally and independently.
- 8.4. Both the parties accept that the Monitors have the right to access all the documents relating to the project/ procurement, including minutes of meetings. The Monitor shall be under contractual obligation to treat the information and documents of the BIDDER/ Subcontractor(s) with confidentiality.
- 8.5. As soon as the Monitor notices, or has reason to believe, a violation of this Pact, he will so inform the Authority designated by the BUYER.
- 8.6. The Monitor will submit a written report to the designated authority of BUYER/Secretary in the department/within 8 to 10 weeks from the date of reference or intimation to him by the BUYER /BIDDER and, should the occasion arise, submit proposal for correcting problematic situations.

#### 9. FACILITATION OF INVESTIGATION

In case of any allegation of violation of any provision of this fact or payment of commission, the BUYER or its agencies shall be entitled to examine all the documents including the books of Account of the BIDDER and the BIDDER shall provide necessary information of the relevant documents and shall extend all possible help for the purpose of such examination.

#### 10. LAW AND PLACE OF JURISDICTION

This pact is subject to Indian Law, the place of performance and jurisdiction shall be the seat of the BUYER.

#### 11. OTHER LEGAL ACTIONS

The actions stipulated in this integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of any other law in force relating to any civil are criminal proceeding.

#### 12. VALIDITY

- 12.1 The validity of this integrity Pact shall be from the date of its signing and extend up to 2 years or the complete execution of the contract to the satisfaction of both the BUYER and the BIDDER/Seller whichever is later. In case BIDDER is unsuccessful, this Integrity Pact shall expire after six months from the date of the signing of the contract.
- 12.2. If one or several provision of this pact turns out to be invalid; the remainder of this pact shall remain valid. In such case, the parties will strive to come to an agreement to their original intention.
- 13. The parties hereby sign this integrity Pact at ......on......

BUYER	BIDDER
Name of Officer	CHIEF EXECUTIVE OFFICER
Destination Department/PSU	
Witness	Witness
1)	1)
2)	2)

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#### ANNEXURE-II IEEMA CIRCULAR



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IEEMA/PVC/STAR-DIST-CU/2012

Effective from: 01st January 2012

# PRICE VARIATION CLAUSE FOR BEE STAR THREE AND ABOVE RATED COPPER WOUND DISTRIBUTION TRANSFORMERS COMPLETE WITH ALL ACCESSORIES AND COMPONENTS (Of voltage up to 33 KV) supplied against domestic contracts

This price variation clause is applicable for 'BEE Star Three and above Rated Copper Wound Distribution Transformers', with voltages up to 33 KV. The clause is to be used for domestic contracts.

The price quoted/confirmed is based on the input cost of raw materials/components and labour cost as on the date of quotation and the same is deemed to be related to prices of raw materials and all India average consumer price index number for industrial workers as specified in the price variation clause given below. In case of any variation in these prices and index numbers, the price payable shall be subject to adjustment, up or down in accordance with the following formula:

$$P = \frac{P_0}{100} \left( 13 + 36 \frac{C}{C_0} + 16 \frac{ES}{ES_0} + 14 \frac{FE}{FE_0} + 4 \frac{IM}{IM_0} + 6 \frac{TO}{TO_0} + 11 \frac{W}{W_0} \right)$$

Wherein,

P = Price payable as adjusted in accordance with the above formula.

P<sub>0</sub> = Price quoted/confirmed.

C<sub>o</sub> = Average LME settlement price of copper wire bars (refer notes)

This price is as applicable of the month, <u>ONE</u> month prior to the date of tendering.

ES<sub>o</sub> = C&F price of CRGO Electrical Steel Sheets (refer notes)

This price is as applicable on the 1<sup>st</sup> working day of the month, <u>ONE</u> month prior to the date of tendering.

FE<sub>o</sub> = Wholesale price index number for 'Ferrous Metals' (Base: 2004-05=100) (refer notes)
This index number is as applicable for the month, <u>THREE</u> months prior to the date of tendering.

IM<sub>o</sub> = Price of Insulating Materials (refer notes)
This price is as applicable on the 1st working day of the month, <u>ONE</u> month prior to the date of tendering.

TO<sub>o</sub> = Price of Transformer Oil (refer notes)

This price is as applicable on the 1<sup>st</sup> working day of the month, <u>ONE</u> month prior to the date of tendering.

W<sub>0</sub> = All India average consumer price index number for industrial workers, as published by the Labour Bureau, Ministry of Labour, Govt. of India (Base: 2001 = 100)
This index number is as applicable on the first working day of the month, <u>THREE</u> months prior to the date of tendering.

For example, if date of tendering falls in May 2011, applicable prices of Copper Wire Bars  $(C_0)$ , Transformer Oil  $(TO_0)$ , CRGO Steel Sheets  $(ES_0)$  and Insulating material  $(IM_0)$  should be as on 1st April 2011 and Wholesale price index number for 'Ferrous Metal'  $(FE_0)$  and Labour Index  $(W_0)$  should be for the month of February 2011.

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Indian Electrical & Electronics Manufacturers' Association

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#### IEEMA/PVC/STAR-DIST-AL/2012

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The above prices and indices are as published by IEEMA vide circular reference number IEEMA(PVC)/TRF (R-1)/\_/\_ ONE month prior to the date of tendering.

- AL = Price of EC Grade Aluminium rods (Properzi rods) (refer notes)
  This price is as applicable on the 1<sup>st</sup> working day of the month, <u>ONE</u> month prior to the date of delivery.
- ES = C&F price of CRGO Electrical Steel Sheets (refer notes)
  This price is as applicable on the 1<sup>st</sup> working day of the month, <u>ONE</u> month prior to the date of delivery.
- FE = Wholesale price index number for 'Ferrous Metals (Base: 2004-05=100)' (refer notes)
  This index number is as applicable for the month, <u>THREE</u> months prior to the date of delivery.
- Price of Insulating Materials (refer notes)
   This price is as applicable on the 1<sup>st</sup> working day of the month, <u>ONE</u> month prior to the date of delivery.
- Price of Transformer Oil (refer notes)
  This price is as applicable on the 1<sup>st</sup> working day of the month, <u>ONE</u> month prior to the date of delivery.
- All India average consumer price index number for industrial workers, as published by the Labour Bureau, Ministry of Labour, Govt. of India (Base: 2001 = 100)
   This index number is as applicable on the first working day of the month, THREE months prior to the date of delivery.

For example, if date of delivery in terms of clause given below falls in December 2011, applicable prices of Aluminium (AL), Transformer Oil (TO), CRGO Steel Sheets (ES) and Insulating Material (IM) should be as on 1st November 2011 and Wholesale price index number for 'Ferrous Metals' (FE) and Labour Index (W) should be for the month of September 2011.

The above prices and indices are as published by IEEMA vide circular reference number IEEMA(PVC)/TRF (R-1)/\_/\_ ONE month prior to the date of delivery.

The date of delivery is the date on which the transformer is notified as being ready for inspection/despatch (in the absence of such notification, the date of manufacturer's despatch note is to be considered as the date of delivery) or the contracted delivery date (including any agreed extension thereto), whichever is earlier.

Notes: (a) All prices of raw materials are exclusive of modvatable excise/CV duty amount and exclusive of any other central, state or local taxes; octroi etc. transformers manufacturers import major raw materials like CRGO Steel Sheets and Insulating pressboards etc. The landed cost of these imported raw materials includes applicable custom duty but exclusive of modvatable CVD.

(b) All prices are as on first working day of the month.

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#### IEEMA/PVC/STAR-DIST-AL/2012

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- (c) The details of prices are as under:
  - The price of Aluminium in Rs./MT is the average Ex-works price of EC Grade Aluminium rods quoted by the primary producers confirming to specifications IS: 5484.
  - 2) The price of CRGO Electrical Steel Sheets suitable for BEE Star Three and above rated Distribution Transformers of up to 33 KV (in Rs./MT) is the average C&F price (landed cost) as quoted by primary producers; in US \$ per MT converted into Indian Rupees with applicable exchange rate and inclusive of applicable customs duty only but exclusive of countervailing duty prevailing as on 1<sup>st</sup> working day of the month.
    The price to be considered is same as applicable for Power Transformers (rating above 10 MVA or voltage above 33 KV)
  - 3) The wholesale price index number for 'Ferrous Metals' is as published by the Office of Economic Advisor, Ministry of Industry, Govt. of India, New Delhi with base 2004-05=100. This wholesale price index number is being published monthly on provisional basis. However, the same gets finalized and is normally available after two months. Therefore, we are considering in our calculations this final index for month, TWO months prior to the date of which the prices of other raw materials such as Al, IM are published for the corresponding month.
  - 4) The average price of insulting materials (in Rs./Kg) of pre-compressed pressboards of size 3 mm and 10 mm thick, 3200 mm x 4100 mm C&F price in free currency per MT converted into Indian Rupees with applicable exchange rates prevailing as on 1<sup>st</sup> working day of the month as quoted by primary suppliers. This price is the landed cost, inclusive of applicable customs duty only but exclusive of countervailing duty.
- The price of Transformer Oil (in Rs./K.Ltr) is the average price on ex-refinery basis as quoted by two manufacturers for supply in drums.

Some purchasers are purchasing oil immersed Transformers from manufacturers without first filling of oil. Oil for first filling is procured and filled by the purchasers. For such supplies PV formula, excluding Oil will apply as under:

$$P = \frac{P_0}{88} \left( 12 + 18 \frac{AL}{AL_0} + 26 \frac{ES}{ES_0} + 17 \frac{FE}{FE_0} + 4 \frac{IM}{IM_0} + 11 \frac{W}{W_0} \right)$$

where description of P, Po, AL, ES, FE and IM etc. remains same as mentioned earlier.

Authorised Signatory

IEEMA/PVC/STAR-DIST-AL/2012/3/3

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## PROFORMA FOR BANK GUARANTEE TOWARDS SECURITY DEPOSIT

(To be executed on non-judicial stamp paper of Rs. 250/- and Rs 1/- Revenue stamp may be affixed on Bank Guarantee)

Bank Guarantee No	Dated
In consideration of the Chhattisgarh State Power Tracompany of Chhattisgarh State Electricity Board, Ragreed to accept this Bank Guarantee in lieu of caperformance required from M/s	Raipur hereinafter referred to as 'CSPTCL') having sh deposit by way of Security for due and faithful
The beneficiary of this Bank Guarantee shall be Limited, Raipur (A Successor Company of erstwhile Bank Guarantee would go in the name of Chhattis Raipur (A Successor Company of erstwhile CSEB Ra	e CSEB Raipur). The proceeds / encashment of this garh State Power Transmission Company Limited,
This agreement should be validand bin upto 20 or for such further period as ma writing by the Chhattisgarh State Power Transmiss terminable by notice or any change in the constitutio by any others reasons whatsoever and the Banker's li by any extension of time or variations or alteration m Bank knowledge or consent by or between the Chhat contractor in the existing and / or further tenders and	sion Company Ltd. and the contractor shall not be n of the aforesaid bank or the firm of Contractors or ability hereunder shall not be impaired or discharged ade, given conceded or agreed to with or without the tisgarh State Power Transmission Company Ltd. and
It is agreed by the Bank with the CSPTCL that if for liability to pay the requisite amount to the CSPTCL at Raipur alone shall have the jurisdiction to determine to the liability of the Bank under the unconditional as mentioned above.	under the terms of this guarantee the competent court mine the said dispute and that this shall be without
The liability under this guarantee is res	shall remain in force until dtd, unless a de by CSPTCL to the Bank upto dtd the
WITNESSES: -	SIGNATURE
1	Authorized Signatories of Bank Signed for Bank

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