

	<p>AJMER VIDYUT VITRAN NIGAM LIMITED (MATERIAL MANAGEMENT WING) Corporate Identification Number (CIN)- U40109RJ2000SGC016482 Regd. Off. Vidyut Bhawan, Panchsheel Nagar, Makarwali Road, Ajmer-305004 Phone:-0145-2644529, Fax:-0145-2644542. E-mail: semmavvn@gmail.com, Website-www.avvnl.com</p>
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SPECIFICATION NO. AVVNL/SE (MM)/E2A4/TN-1120 FOR SUPPLY OF 33 KV CT-PT METERING SETS OF RATIOS 15/5 AMP., 50/5 AMP., & 200 Amp. AGAINST TENDER NOTICE NO. TN-1120.

LAST DATE & TIME FOR ONLINE (E-TENDERING) TENDER/OFFER	:	16.02.2017 (Upto 2.00 PM)
DATE & TIME OF ONLINE OPENING OF TENDER	:	17.02.2017 (2.30 PM)
RISL PROCESSING FEE (Non Refundable)	:	Rs. 1000/-
COST OF SPECIFICATION (Non Refundable)	:	Rs. 2500/-
VALIDITY	:	Upto minimum 120 days from the next date of opening of Techno-Commercial Bid
EARNEST MONEY	:	Rs. 5,00,000.00 (Rs. Five Lac only) or Exemption Certificate or Vender Registration of Class "A" category or above
TENDERING QUANTITY	:	33 KV CT-PT Metering Sets 15/5 Amp. – 25 Sets 50/5 Amp. – 26 Sets 200 Amp. – 2300 Sets
CONTACT PERSON (AUTHORISED BID SIGNATORY)	:	Superintending Engineer (MM), AVVNL, Ajmer.
CORRESPONDENCE ADDRESS	:	Vidyut Bhawan, Makarwali Road, Panchsheel, Ajmer.
MOBILE NO.	:	9414004258
TELEPHONE & FAX Nos.	:	0145- 2644529/0145- 2644542
WEBSITE & E-MAIL	:	1. Web: www.avvnl.com Email: 2. Web: http://risl.rajasthan.gov.in , Email: info.risi@rajasthan.gov.in
Address of RISL:- Raj COMP Info Services Limited (RISL) 1 st Floor, Yojana Bhawan, Tilak Marg, C-Scheme, Jaipur (Rajasthan) Phone: 0141- 5103902, 4031900 Fax: 0141-2228701 Web: http://risl.rajasthan.gov.in , Email: info.risi@rajasthan.gov.in		

INDEX

S. NO.		PARTICULARS
1	ANNEXURE-I	Qualifying Requirements.
2	ANNEXURE-II	Performa of Bank Guarantee in lieu of furnishing of type test certificate and undertaking.
3	SECTION-I	Instruction to tenderers.
4	SECTION -II	General Conditions of Contract.
5	SCHEDULE-III	Prescribed Technical Specification
6	SCHEDULE-IV	Schedule of prices
7	SCHEDULE-IV (A)	Schedule of Quantity
8	SCHEDULE-V	Guaranteed Technical and other Particulars
9	SCHEDULE-VI (A)	Technical Deviation from the specification
	SCHEDULE-VI (B)	Commercial Deviation from the specification
10	SCHEDULE-VII	List of past supplies.
11	SCHEDULE-VIII	Delivery/completion schedule
12	SCHEDULE-IX	List of equipment & Technical Hands available with the firm.
13	ANNEXURE- 'A'	GTP
14	ANNEXURE- 'B'	Price variation formula.
15s	SCHEDULE-X	General Particulars of Tender.

Note:-The bidder, in their own interest, are requested to read very carefully Section-I (Instruction to bidders), Section-II (General Condition of Contract) & Section-III (Technical Specification) before filling the bid. The Bid documents be downloaded from AVVNL website www.avvnl.com or www.http://eproc.rajasthan.gov.in and upload the tender on website of RISL www.http://eproc.rajasthan.gov.in No hard copy of the bidding documents will be provided to the bidders through this office. In case of any discrepancy found in bidding documents downloaded from the website and appended with the bid (as a bid document) and original copy of such document available in the office of Superintending Engineer (MM), Ajmer Discom, Ajmer then the copy available with Superintending Engineer (MM), Ajmer Discom, Ajmer will be considered as final document for all purpose. The cost of Bid document as published in NIT shall be furnished along with EMD one day prior to opening of bid i.e. and scane copy the be upload on website of RISL downloaded bid document in the manner prescribed in bid document.

ANNEXURE-I**PRE- QUALIFICATION REQUIREMENT**

The bidder should fulfil following qualifying requirements for successful participation in the tender along with relevant documentary evidence supporting each qualifying requirement without which the offer shall be considered non-responsive & rejected.

1.0 STATUS OF BIDDER:-

- a) The bidder should be a Manufacturer of offered items. The offers from sole selling agent/ authorized dealers shall not be entertained.
- b) Old/ New suppliers:- Any bidder located within or outside the state of Rajasthan has participated for the first time in a particular Discom & meeting minimum qualification requirement and has supplied the tendered material/or of higher rating in other utility shall be treated as an old supplier. Rajasthan's firms although supplied in past but not meeting minimum quantity supplied criterion including altogether new units which have not supplied any quantity but having adequate & required manufacturing and testing facility and technical know-how of the tendered material shall be considered as new firms and would be eligible for trial order only. In case of supply made to the licensed power utility outside India, the C.A. certificate furnished by firm shall be considered.

2.0 PAST SUPPLY & PERFORMANCE CRITERIA:-

The bidder shall meet both past supply and performance criteria as detailed below for opening of tenders:-

2.01 PAST SUPPLY:-

- 2.01.1 The bidder is required to quote for minimum 10% of tendered quantity failing which their offer may be considered Non-Responsive.
- 2.01.2 The bidder should have designed, manufactured/fabricated, tested and supplied to licensed Power utility/ Discoms/Govt. Departments at least 2 X QQ (QQ being the quoted quantity) of similar item/ higher rating of tendered material/equipment in last 3 financial years from the date of opening of technical-commercial bid.

Note: Requirement of quantity manufactured, minimum quantity to be offered and amount of Bank Guarantee to be furnished in absence of test certificate shall be reduced to 25% for Rajasthan based units.

- 2.01.3 In support of fulfilment of the past supply criteria, the bidder shall furnish documentary evidence in the form of certificate from Chartered Accountant in the enclosed prescribed Performa only. This prescribed Performa should be furnished either in original or copy duly attested by Notary. The bidder shall also sign and affix seal on the C.A. Certificate. The certificate should have membership number with the name & address of the chartered accountant. Certificate should clearly indicate the quantity supplied, period of supply, voltage Class, Accuracy Class, Rating of the Material etc. in the format prescribed, any deviation to format or information diverted format, will not be considered and rejected.

Note:- The material supplied and accepted for same/higher rating for Turnkey projects to a licensed power utility/Govt. shall be considered for the purpose of evaluating criteria. The certificate given by C.A. shall indicate above quantity separately.

2.02 PERFORMANCE CRITERIA:-

2.02.1 i) If a bidder has supplied up to 50% of ordered quantity in previous tender up to date of opening of subsequent tender and scheduled delivery period expired, the bid of such bidder will not be opened in the Discom for that item.

ii) However, if the supplies have been completed for a quantity more than 50% but not completed up to date of opening of subsequent tender and scheduled delivery period expired, the quantity equal to the quantity pending in previous tender for that item shall be reduced from the subsequent tender quantity to be allocated to the bidder.

3.0 TYPE TEST CRITERIA:-

a) The bidder shall furnish valid and authenticated type test certificate from a Govt. approved/a Govt. recognized/NABL accredited laboratory/ILAC i.e. International Laboratory Accredited laboratory/ILAC i.e. International Laboratory Accreditation Cooperation (In case of foreign laboratory) of Lowest ratio of the Tendered Item. Such type test certificates should not be older than Five years as on the date of bid opening. For this purpose date of conduction Type Test(s) will be considered.

b) The type test certificates by in house laboratory of bidding firm even if it is a Govt. approved/Govt. recognized/NABL accredited/ ILAC accredited, shall not be accepted, in case of their own bid. This will not apply if bidding firm is Govt. Company/Public Sector Undertaking.

c) The bidder should furnish documentary evidence in support of the laboratory whose type test have been furnished, that the said laboratory is a Govt./a Govt. approved/a Govt. recognized/ NABL accredited laboratory/ILAC accredited (in case of foreign laboratory).

d) The type test certificate shall be furnished either in original or copy duly attested notary.

e) The bids of only those bidders shall be considered to be meeting the type test criteria who furnishes complete type test certificates with the bid as per above provision.

f) However, in the following cases the bid of the bidder may be considered meeting the type test criteria, if the bidder furnishes an undertaking stating that valid type test from a Govt./ Govt. approved/Govt. Recognized/NABL Accredited laboratory/ILAC accredited laboratory shall be furnished from first lot (without asking any delivery extension) along with Bank Guarantee with the Technical bid from a Nationalized/Scheduled Bank in prescribed Performa at Annexure-II or DD/Pay order amounting to Rs. 500000/-. The initial validity of bank guarantee shall be nine months with claim period of three months in addition.

i) Where a new Rajasthan based firm is participating & is technically competent.

ii) Where one or more type test(s) is/ are older than 5 years.

iii) Where Rajasthan/outside Rajasthan firm furnishes requisite type test reports of higher rating material

4.0 POOR RECORD OF PERFORMANCE AND DELIVERY:

The bidder who have been black listed in any of the state Discom or with whom business relations have been severed in Jaipur Discom shall not be considered. Severment of business relations will be done in case of following circumstances for the period and with the recovery mentioned against each:

i) When vendor does not accept order awarded on its accepted price and terms and conditions or does not comply with contractual formalities.	Forfeiture of EMD/cancellation of vendor registration to recover amount of EMD along with severment of business relations for three years from the date of issue of order.
ii) When vendor complies with contractual formalities but does not commence supplies.	Levy of maximum recovery on account of delay in delivery along with severment of relations for a period of 2 years from the date of issue of order or in next two bids whichever is later along with forfeiture of EMD / cancellation of vendor registration.

5.0 (A) Black listing of a firm:

After having given Show Cause Notice of 30 days, and having established & cogent reasons for blacklisting of the firm as given below, the firm should immediately be blacklisted for a period of 5 years indicating reasons of doing so, in the letter itself, and a copy of such blacklisting should be given to the firm, with the approval of CLPC:-

(i) There are sufficient and strong reasons to believe that the supplier or his employee has been guilty of malpractices such as manhandling/misbehavior with Government official by supplier or his partner/employee, bribery, corruption or abatement of such a offence in a position where he could corrupt Nigam's official, fraud, vitiating fair tender process including substitution of or interpolation in tender, mis-representation, pilfer-aging or unauthorized use or disposal of Nigam's material issued for specific work etc.

(ii) Where a supplier or his partner or his representative has been convicted by a court of Law for offences involving moral turpitude in relation to the business dealing or where security considerations including suspected disloyalty to the Nigam/state so warrant the blacklisting.

(iii) If the State Bureau of Investigation or any other authorized investigating agency recommends for blacklisting after completing the investigation.

Note: - 1 If a supplier after having tendered for a supply or after negotiations gives application voluntarily vitiating the fair tendering process, it shall also tantamount to malpractice.

Note:-2 A register containing the reasons for blacklisting the supplier as also the names of all the partner of the suppliers and the allied concerns coming within the effective influence of the blacklisted supplier will be maintained.

Note: - 3 A register of black listed supplier will be maintained which will not only include suppliers enlisted with the Enlisting Authority but also black listed suppliers in Nigam.

Note :-4 A Black listed supplier (i) shall not be entitled for registration in any of the Discom (ii) shall not be awarded any supply order in future in any Discom during the notified period.(iii) his registration if any shall stand cancelled immediately and his registration security /EMD/S.D. shall stand forfeited. (iv) In case of blacklisting of the firm by any one of Discom for the cogent prescribed reason(s) as stipulated above, the same shall be applicable to all the three Discoms and as a consequence of blacklisting, all the pending orders to that firm, will be cancelled in all three (3) Discoms with immediate effect. However in respect of completed/executed contract G.P. obligations as well as other liabilities shall be fulfilled by the supplier.

(B) Severment of Business relation:

- (a) After having given Show Cause Notice of 30 days, and having established & cogent reasons for Severment of business relation as given below, the firm should immediately be severed the business relations for a period of 2 to 3 years indicating reasons of doing so, in the letter itself, and a copy of such severment should be given to the firm, with the approval of CLPC:-
- (i) The supplier continuously refuses to pay Nigam dues without showing adequate reasons and where the purchasing authority is satisfied that no reasonable dispute attracting reference to Settlement Committee or Court of Law exists for the supplier's action of non-supply.
- (ii) When vendor does not accept LOI/detailed purchase order awarded on its accepted prices and terms & conditions or does not comply with the contractual formalities.
- (iii) When vendor/supplier who otherwise completed contractual formalities but does not commence supplies on the date of opening of technical bid of the fresh tender/completion of schedule delivery period whichever is later.

Note-1. In case supplier does not deposit outstanding dues towards Nigam, even after completion of severment period, the period of severment will continue.

- 2. Severment done purely/ mainly on account of non-deposition of dues against the supplier/vendor/contractor could be lifted by CLPC, if the dues are deposited prior to the expiry of such severment period.
- 3. Severment done by one Discom for non-supply of material and /or corresponding non-recovery of dues will not be effective in other Discoms except in respect of common purchase cases of three Discom.
- 4. On severment of business, the EMD/SD/vendor registration security will be forfeited.
- 5. The orders in execution satisfactorily will not be cancelled other than the order on which severment have been done.

(C) DEBARMENT

Reasons on which Debarment can be made:-

- (i) The competent authority may debar the supplier on account of his performance or other disabilities, if it is no longer considered fit to remain under vendor registration as per his obligation under vendor registration.
- (ii) If at any subsequent stage of inspection of firms after award of contract, it is found that firm does not have sufficient tech. staff or required/necessary technical equipments, the purchasing authority can debar the firm for one year or next tenders whichever is later. The debarment will be lifted only on re-inspection of firm's works; the defects noticed earlier are fully rectified to the satisfaction of Nigam.

- (iii) When contract agreement executed and supplies commenced but could supply only up to 50% of ordered quantity and scheduled delivery period expired, then the firm can be debarred for one year or next tender whichever is later in that Discom only for that particular item/rating/ capacity/size etc.
- (iv) The suppliers who have been awarded contract for supply of material is not adhering to the periodic delivery schedule, the contract awarding authority reserve the right to terminate the contract and may debar the firm in participating in tender for a period of 2 to 3 years.

Note:- 1. On debarment, the EMD/ SD/Vendor Registration security shall be forfeited.

Note:- 2. If the firm is debarred in one Discom for any reasons then the same should not be applicable in other Discom subject to exception that in case of common Discoms purchases such debarment of a firm would be applicable to all three Discoms for that particular item and rating/capacity/size etc.

4.0 APPEALS AND APPLICATIONS:-

Appeal against the order of blacklisting, severment and debarment can be filed before BOD within a period of 3 months from the date of intimation. The letter of appeal will be addressed to the order placing authority. Who will process the case for placing the matter in B.O.D. with in a period 60 days. The BOD may reduce or waive the penalty, if sufficient reasons/supporting documents are furnished by the supplier.

GENERAL CONDITIONS : - (ALL CONDITIONS BE DULY SIGNED & SEALED)

- I) The bidder shall clearly indicate the deviations such as 'Technical Deviation & Commercial Deviations' in the prescribed Performa only. The deviations indicated elsewhere in the bid shall not be accepted.
- II) The bidder must clearly fill up each and every particular of guaranteed technical particulars annexed with Technical Specifications otherwise he will be responsible for Technical Non-responsiveness.
- III) All documents required in the prescribed format are to be furnished along with the bid itself only except an attested copy of BIS license (wherever it is required), failing which the bid will be summarily rejected.

ANNEXURE – II**BANK GUARANTEE IN LIEU OF FURNISHING OF TYPE TEST CERTIFICATE
(On Non – Judicial stamp paper of Govt. of Rajasthan as per applicable value)**

To,

**The Superintending Engineer (MM),
Ajmer Vidyut Vitran Nigam Limited,
Vidyut Bhawan, Makarwali Road,
Panchsheel Nagar,
Ajmer-305004.**

Dear Sir(s),

Whereas AVVNL, Ajmer (hereinafter called the purchaser) has issued a tender enquiry under **TN-1120** for procurement of _____ (name of materials).

Whereas M/s. _____ (hereinafter called the bidder) has furnished a bid for supply of _____ to the Superintending Engineer (MM), AVVNL, Ajmer or his nominated officer (s).

Whereas in accordance with the provisions of the specification of the aforesaid **TN-1120**, the bidder can deposit a bank guarantee in lieu of the requirement of furnishing the type test certificate.

Whereas M/s. _____ (The Bidder) have requested us (name of the Bank) to furnish the bank guarantee, in lieu of the type test certificate, for an amount equivalent to Rs. _____ (in words also) only.

Under this Bank Guarantee, we _____ (Name of the Bank) hereby undertake unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to the purchaser on his first demand whatsoever without right of objection on our part and without his first claim to the bidder, in the amount not exceeding _____ (amount of guarantee in figures and words).

Payment in pursuant to this undertaking will be demanded by the purchaser from the Bank and will be met by the Bank without question in the case in which the bidder, on receipt of the order and / or after the acceptance of this tender, makes default in furnishing the required type test certificates. As to whether the occasion or ground has arisen for such demand the decision of the Superintending Engineer (MM), AVVNL, Ajmer shall be final.

The liability of the Bank shall not at any time exceed Rs. _____ (Rupees _____).

The undertaking will be determined on but will not withstanding such determination, continue to be in force till the expiry of 3 months from that date.

No indulgence or grant of time by the purchaser to the bidder without the acknowledgement of the Bank will discharge the liabilities of the Bank under this guarantee.

The guarantee herein contained shall not be affected by any change in the constitution of the bidder.

All disputes arising under the said guarantee between the Bank and the bidder or between the bidder and the purchaser pertaining to the guarantee shall be subjected to the jurisdiction of Courts only at Ajmer in Rajasthan.

The Bank further undertakes not to revoke this guarantee during its currency except with the previous consent of the Superintending Engineer (MM), AVVNL, Ajmer.

Notwithstanding anything contained herein before, the Bank's liability under this guarantee is restricted to Rs. _____ (Rupees _____) and the guarantee shall remain in force upto _____. Unless demand or claim in writing is presented on the Bank within three months from that date, the Bank shall be released and discharged from all liabilities there under. However the validity of the Bank Guarantee shall be extended as and when required by the purchaser.

In witness thereof the bank has executed these presents on the day _____ months _____ and year _____.

Yours faithfully,

(Bankers) Executants

Witnesses: -

- 1.
- 2.

SECTION-III

TECHNICAL SPECIFICATION OF 33 KV CT-PT METERING SETS AGAINST TN-1120.

3.01 SCOPE:

This specification covers the design, manufacture, assembly, testing and delivery of three phase four wire 33 KV/110V oil cooled outdoor type combined CTPT units for metering purpose having 3 Nos. single phase potential transformers for 33 KV and 3 Nos. single phase paper impregnated oil emersed current transformers for different phases in common tank equipped with weather proof bushing for outdoor use as per technical data incorporated in this specification.

3.02 APPLICABLE STANDARDS:

Unless otherwise modified in this specification, the 33 KV CTPT Metering Sets shall comply with the following Indian Standard Specification (latest version):

IS:2705-1992	Specification for current transformers.
IS:3156-1992	Specification for voltage transformers.
IS:5621-1980	Specification for Insulators/Bushings
IS:2099-1986	Specification for insulators/ bushing
IS:3347-1986	Specification for Insulators/Bushings
IS:335-1983	Specification for new insulating oil
IS :5561	Specification for Insulators/Bushings

Equipments conforming to any other international standard(s) which ensure(s) equal or better quality than the standard(s) mentioned above will also be acceptable and in such case(s) the copy of standards (English version) adopted should be provided.

3.03 CLIMATIC CONDITIONS:

The equipment shall be suitable for operation under climatic conditions as mentioned in Clause No.16 of General Conditions of Contract Section 2 of this specification.

3.04 33 KV CTPT Metering Sets:

A) 33 KV Single Phase Current Transformer (3 Nos. for R, Y & B phases).

The 33 KV current Transformer shall be paper impregnate oil immersed type, single phase 50 HZ conforming to IS:2705/1992 with latest amendment in all respect except where ever modified in this specification.

The 33 KV current Transformers shall have the following technical characteristics/ parameters:-

Sr. No.	Particulars	Parameters
i)	Normal system voltage (KV rms)	33
ii)	Highest system voltage (KV rms)	36
iii)	Frequency	50 Hz
iv)	Impulse withstand voltage (KVP) (on assembled CTPT set)	170
v)	i) One minute power frequency dry withstand voltage (on assembled CT-PT set) a) primary (KV r.m.s.) b) secondary (KV r.m.s.) ii) One minute frequency wet withstand voltage (KV Peak) (On assembled CT-PT set)	70 3 Root 2x70 Rms
vi)	Transformation ratio (CT Ratio)	15/5 Amp., 50/5 Amp. & 200/5 Amp.
vii)	Rated output (VA burden)	15 VA
viii)	Class of accuracy	0.5S
ix)	Rated continuous thermal current	1.2 times of rated primary current.
x)	Short time thermal current rating for 1 second.	18 KA for all ratios.
xi)	Rated dynamic current	2.5 times of short time thermal current rating.
xii)	Number of cores	One
xii)	Instrument security factor	Not exceeding 5
xiii)	Max. ratio error	As per IS:2705/ 1992
xiv)	Max. phase angle error	As per IS:2705/ 1992
xv)	Max. temp. rise over max. ambient temp. of 50 deg. C at rated continuous thermal current at rated frequency and with rated burden.	As per IS:2705/ 1992

(B) 33 KV Voltage Transformers:

33 KV voltage Transformers will be used along with CTs of description stated above. These shall be paper impregnate oil immersed type conforming in all respect to the Indian Standards specification IS: 3156/1992 with latest amendment except where modified in this specification.

The 33 KV voltage transformers shall have the following ratings/ technical parameters:-

Sr. No.	Particulars	Parameters
i)	Nominal system voltage (KV rms)	33
ii)	Highest system voltage (KV rms)	36
iii)	Nos. of phases	three
iv)	Impulse withstand voltage (KVP) (on assembled CTPT set)	170
v)	i) One minute power frequency dry withstand voltage (on assembled CT- PT set) a) primary (KV r.m.s.) b) secondary (KV r.m.s.) b) One minute frequency wet withstand voltage (KV Peak) (On assembled CT-PT set)	70 3 Root 2x70 rms
vi)	Frequency	50 Hz
vii)	Transformation ratio (PT Ratio)	33 KV/ 110V
viii)	Rated output (VA burden)	30 VA per phase
ix)	Class of accuracy	0.5 (A s per IS :3156/1992
x)	Winding connection	Star/Star
xi)	Rated voltage factor and time	1.2 continuous and 1.9 for 30 secs.
xii)	Temp.rise over max. ambient temp.	Within limits of IS :3156/1992
xiii)	Max. Phase angle error	Within limits of IS :3156/1992
xiv)	Ratio error (Max.)	Within limits of IS :3156/1992

3.05 GENERAL TECHNICAL DESCRIPTION OF 33 KVCT-PT METERING SETS:

- i) The CT PT Metering set shall comply to the latest standards mentioned in the specification and guaranteed technical particulars.
- ii) High voltage winding of 33 KV instrument transformers shall have paper insulation impregnated with oil under vacuum. The paper used for insulation shall be of high insulation grade. The process of impregnation shall be detailed out in the tender.
- iii) The core material of CT-PT sets shall be of high grade, non-ageing, electrical silicon steel having low hysteresis loss and high permeability to ensure accuracy at both normal and over current/ voltage.
- iv) The instrument transformers shall be contained in a fully weather proof, outdoor type, platform mounting and also suitable for pole mounting type tank with 6 Nos. of 36 KV class weather proof bushing for incoming and outgoing connections.

- v) The thickness of MS sheet used for fabrication of tank shall be min. 3.15 mm for sides and bottom and 5 mm for top cover.
- vi) The 33 KV CT-PT set should have compact construction and the General arrangement, Dimensional Drawing, Mounting arrangement shall be got approved before commencement of supplies.
- vii) The external surfaces of tanks of CT-PT sets shall be painted with one coat of primer and two coats of synthetic enamel paint of shade No.631 of IS:5. The internal surfaces of the tank shall be painted with two coats of a suitable heat resistant oil insoluble paint.
- viii) The metering sets shall be supplied with first filling of insulating oil conforming to IS:335 (including latest amendment).
- ix) The bushings used in the CT-PT sets shall conform to IS:2099, IS:5621 and IS:3347 (latest amendments). These shall be suitable for operation in heavily polluted atmosphere with Creepage distance of 25 MM/KV.
- x) The minimum clearance between phases and phase to earth as specified in the relevant ISS should be maintained.
- xi) The paper impregnated oil immersed type instrument transformers shall be complete with all fittings and accessories mentioned at Clause No. 3.06 of this specification.
- xii) The 33 KV CT-PT Metering Sets shall be hermetically sealed type (should not communicate with atmospheric air) in construction without any oil conservator. The quality and work-man-ship shall be of high standard.
- xiii) CT-PT sets shall be used for 3 phase 4 wire KWH metering, as such 33 KV CT PT sets shall have 3 Nos. CTs.
- xiv) The 33 KV CT PT sets shall have 3 Nos. single phase PT. The primary winding of single phase PT shall be connected in star formation in the tank with common neutral of 33 KV brought outside the tank through 3 KV bushing for earthing.
- xv) The neutral of PT primary and secondary winding shall be earthed.
- xvi) The primary winding neutral and secondary winding neutral of PT and secondary terminals of CTs and PTs shall be brought out in one single secondary terminal box through 3 KV bushings. The terminals shall be marked as per ISS and supporting marking plate with earth terminal shall be provided. The secondary terminal box compartment shall be divided in two portions- One portion containing neutral of primary winding of PT and its separate earthing terminal and second compartment accommodating secondary neutral and PT terminals complete with one earth terminal (for earthing of secondary neutral terminal wherever required) and all 6 Nos. CT secondary terminals of 3 CTs. Both the above portions shall be covered by separate bolted cover with sealing arrangement. At least two bolts at diagonally opposite corners on both the portions of secondary terminal box shall be suitable for sealing arrangement. All other bolted covers, inspection window cover, where provided shall also have sealing bolts for sealing purpose. Suitably shorting links shall be provided for individual CT shorting and earthing PT secondary neutral.

- xvii) The secondary terminal box shall have cable gland/ flange suitable to receive two Nos. control cable of size 6 cores x 4 sq.mm & 4 core X 2.5 sq. mm at the bottom of the secondary box for metering connections to secondary winding of 33 KV CT-PT circuits respectively.
- xviii) The 33 KV CT PT Set shall have 3 Nos. incoming and 3 Nos. outgoing outdoor type bushing. 33 KV CT-PT Metering Sets shall have 6 Nos. bimetallic terminal connectors suitable for DOG/PANTHER conductor. These should be type tested from CPRI/ NABL accredited Labs and reports be furnished with offer. The reports should not be older than 5 years for Short Circuit Test. The dimension & drawing to be furnished with offer shall be duly signed and sealed by testing authority. Inspecting officer shall verify the original type test reports at the time of inspection for terminal connectors & bushings.
- xix) No oil drain plug at the bottom of the CT-PT Sets be provided.
- xx) Embossing/ punching with minimum height of 10mm of Sr. No., ratio & TN No. be done on the tank of the CT-PT Sets.
- xxi) Manufacturer's name in short should be embossed/ punched.
- xxii) CT Ratio should be painted on tank body so that it should be visible clearly.
- xxiii) The under base of CT-PT Sets shall be provided with 2 Nos. 100x50x6mm channels as shown in the figures at Annexure-I to make them suitable for fixing to a platform or plinth. These channels shall be provided through continuous welding with tank of the CT-PT Sets.
- xxiv) The HV metal parts (Primary Terminals) shall be of 16 mm dia and made of copper. The primary terminal shall be along the entire length of bushing.
- xxv) The following sealing arrangement for providing seals on each 33 KV CT-PT set shall be made by the manufacturer.
 - i) 4 Nos. holes of 2.5 mm dia on each bushing clamp bolts of 6 nos. HT bushings for providing two polycarbonate seals at diagonally opposite bolts of each bushing clamp in M&P lab after successful testing as required.
 - ii) 4 Nos. holes of 2.5 mm dia on the bolts provided at four corners of top cover for providing two polycarbonate seals at diagonally opposite corner of CT-PT set by the inspecting officer after successful testing and providing polycarbonate seals in M&P lab after successful testing as required.
 - iii) 4 nos. sealing holes on the name plate (R&D plate so that our inspecting officer may provide numbered seal on one side of the plate covering top & bottom holes whereas on the remaining two holes of other side, the one numbered seal will be provided by MT Lab after successful testing.

3.06 FITTING AND ACCESSORIES:

The outdoor platform/ pole mounting type CT-PT metering sets shall be complete with tank, fittings, accessories as detailed below :

- 1 No. Electrically welded sheet steel tank/ enclosure for accommodating above instrument transformers with suitable bolted cover.
- 6 Nos. Outdoor single terminal porcelain bushing of reputed make without arcing horns. 3 Nos. for incoming and 3 Nos. for outgoing.
- 1 No. Secondary terminal box. The terminal box opening door/cover for each portion shall have suitable sealing arrangement. The necessary gland/ socket shall be in the scope of supply.
- 1 No. Oil filling hole with cap/plug.
- 1 No. Toughened prismatic oil level indicator with min. oil level marking
- 2 No. Lifting lugs for lifting the complete CT-PT unit.
- 2 Nos. Earthing terminals.
- 1 Set Under base channels with suitable fixing holes for mounting on plat-form/poles.
- 1 Set Detachable rollar assembly.
- 1 No. Rating and diagram plate.
- 6 Nos. Bimetallic Terminal Connectors suitable for Dog/ Panther conductor.

3.07 BUSHING:

The bushing shall conform to IS:5621-1980 and IS:2099-1986 and its subsequent amendment, if any, the bushing shall be of standard make. The make and catalogue No. of bushing shall be clearly stated in the guaranteed technical particulars. The type tests certificates of bushings not older than Five years shall also be furnished along with tenders. The bushing rods and nuts shall be as per clause 3.05 (xxiv).The dimensions of 33 KV class bushings and their related parts for 33 KV CT-PT Metering Sets shall conform to the relevant Indian Standards as detailed below:

Voltage class	Indian Standard	
36 KV bushing	For porcelain parts IS:3347 (Part-V) Sec.I-1973 or the latest version thereof	For metal parts IS:3347 (Part-III) Sec.II-1967).

The minimum electrical clearance of 400 mm for 33KV sets between phases shall be obtained with the bushings mounted and phase to earth clearance should be maintained as specified in relevant IS/ Indian Electricity rules.

3.08 GUARANTEED TECHNICAL PARTICULARS, DRAWINGS AND QUALITY ASSURANCE PLAN:

Guaranteed Technical Particulars in the proforma enclosed with this specification shall be furnished along with the detailed general arrangement dimensional drawings mounting arrangements, connection diagrams and quality assurance plan etc. with the tender. Particulars which are subject to guarantee shall be clearly marked in GTP appended at Annexure-B-I.

3.09 INSTRUCTION MANUALS:

The successful tenders shall have to supply required number of operation and maintenance instruction manuals along with the requisite sets of approved drawings of the equipments covered under this specification. One set of above manuals and drawings shall also be sent along with the delivery of each 33 KV unit to the consignee.

3.10 STAGE INSPECTION

Each equipment shall comply with and shall be subjected to all routine tests prescribed in the relevant Indian Standard Specification besides routine tests, stage inspection at firm's works during manufacture shall also be carried out if desired by purchaser with out any extra charges. Production schedule in advance by 15 days shall have to be given to arrange stage inspection.

3.11 INSPECTION, TESTING AND CHECKING:

- 3.11.1 In the event of order, the supplier shall have to get conducted all type tests as per requirement of IS:2705-1992 and IS: 3156-1992 with latest amendments/specifications on one sample of CT-PT set of lowest ratio out of first offered lot for inspection, comprising of minimum 25% of ordered quantity of lowest ratio, in presence of AVVNL inspecting officer without any extra cost. The impulse test shall be carried out on all the three phases and short circuit test on any one phase selected by the witnessing officer. For this supplier shall make arrangement for type testing to be got conducted from any NABL accredited laboratory and arrange transportation of sample selected from first offered lot for inspection to testing lab & from testing lab to supplier's works. The supplier shall offer the type tested CT-PT set after its re-assembling in subsequent lot. The supplies shall only be accepted & payment against supplies shall be released only after receipt of successful type testing for all type tests on sample.
- 3.11.2 Routine tests as per relevant standard alongwith accuracy test of CT as per IS:2705 (Pt-II)-1992 and that of PT IS:3156 (Pt.II)-1992 shall be carried out on each equipment covered by this specification in the presence of purchaser's representative. All test reports shall be submitted and got approved from the purchaser before despatch of the equipment.
- 3.11.3 The supplier shall simulate single phase condition in their laboratory for testing one 33 KV CT-PT set of any ratio from each lot offered for inspection under such condition for 24 hours. The errors of PT shall be measured before and after application of single phasing condition for at least 24 hours and results shall be within permissible limits of specified accuracy class. This test shall be done as acceptance test.

- 3.11.4 One CT-PT set of each rating in each offered lot should be subjected to temperature rise test. The test shall be carried out simultaneously application of rated current (1.2 lb) and rated voltage (36 KV) and also ISF test, at firm's works free of cost.
- 3.11.5 During routine/ acceptance test, errors for CTs shall be conducted at 1%, 5%, 20%, 100% and 120% of rated current and in case of PT at 80%, 100% and 120% of rated voltage.
- 3.11.6 Algebraic summation of errors of standard CTs/PTs to the errors observed on CTs/PTs under test should be made to get final errors on specified percentage current/ voltage/ burden if class of accuracy of standard CT-PT is less than 10 times of the accuracy of CT-PT set under test.
- 3.11.7 Leak test :- One CT-PT set of each rating in each offered lot should be subjected to 'Leak Test' through Nitrogen gas for a pressure of 10 PSI (Pound sq. inch) for half an hour and pressure shall not drop more than 2 PSI. There should be no leakage observed at any part of CT-PT set.
- 3.11.8 One CT-PT set of each rating in each offered lot shall be opened for verifying the diameter and cross sectional area of primary coil conductors including verification of GTP. The verification of diameter of primary coil conductor shall be carried out for any ratio of one CT-PT set in each lot at stores also. If CT-PT set fails in above verification at stores, entire lot shall be rejected and the supplier shall lift the rejected lot. In case it founds within specific limits, the supplier at his own cost shall reassemble/replace the physically opened CT-PT set at works/stores.
- 3.11.9 One sample of oil shall be taken from each ratio in each lot and shall be tested for a) Break down voltage b) Tan delta at 90 Deg.C.

The oil supplied with CT PT set shall be of EHV grade Transformer oil suitable for insulation and coding of the electric transformers of extra high voltage and shall conform to IS 335 (with latest amendments)

If CT-PT set fails in any of the above tests/verification at works, entire lot shall be rejected.

- 3.11.10 During the inspection at firm's works, inspecting officer/agency shall provide polycarbonate seals on each CT-PT set as under -

- i) One polycarbonate seal on one side of the plate covering top & bottom holes.
- ii) Two polycarbonate seal at diagonally opposite corner of top cover of CT-PT set.

3.12 **TYPE TEST:-**

- 3.12.1 Certified copies of all type tests as per IS-2705-1992, IS:3156-1992 with latest amendments listed below obtained from any accredited CPRI/NABL accredited test laboratory on similar equipments included in this specification shall be furnished alongwith tenders-

- i) Short Time Current Test.
- ii) Lightning Impulse voltage withstand Test.

- iii) Temperature Rise Test.
- iv) Wet Power Frequency Voltage Withstand Test.
- v) Determination of Errors according to the requirement of the appropriate Accuracy Class.
- vi) Instrument Security Factor Test.

Participating firms may furnish BG/DD/pay order of Rs. 5 lac in absence of furnishing any type test report alongwith their bid

- 3.12.2 The bidders shall furnish the latest above type test reports for lowest ratio of offered material along with tender. The type test reports shall not be older than Five years from the date of opening of tender.
- 3.12.3 Bidder shall furnish the calculations of short time thermal current of all ratios of offered CT PT sets, on the basis of cross-sectional area of primary conductor of Type tested CT PT set.
- 3.12.4 The purchaser shall have right to get conducted type tests during currency of the contract on the sets received in the Stores at purchaser's cost. In case of failure in type tests, following provisions shall be applicable: -

Failure in type tests

In the event of failure/ unsatisfactory results of the CT-PT Set(s) in Impulse/Short Circuit test , the supplier shall have to replace the supplies already made and no further CT-PT Sets shall be accepted. The purchaser, however, at his option, may accept the CT-PT Sets already supplied with the following conditions:-

- i) Guarantee Period of the supplied CT-PT Sets issued to the field shall be increased by double the normal guarantee period.
- ii) Bank Guarantee shall be extended to cover the additional guarantee period.
- iii) For failure in any of the type tests, i.e. Impulse Withstand test and Short Circuit Test , no further supplies shall be accepted. The type test charges in this case shall be borne by the supplier.
- iv) The CT-PT Sets lying in the stores shall be replaced as per Sub-para (v) below.
- v) The bidder shall, however, be allowed to check the reasons of failure and if need be, to improve/ modify the design. Further supplies, including replacement against supplies already made, shall be accepted only after successful type test(s) are arranged on the fresh CT-PT selected by the purchaser. All the type tests shall be arranged in case there is change in design, otherwise, type test shall be repeated only for the tests in which failure has occurred. Charges for such test(s) shall be borne by the supplier. However, in the event of failure of CT-PT Sets, in the repeat type test, the Company (AVVNL) may take following actions:-
 - a) Cancel pending orders of the rating in which failure(s) has occurred, and
 - b) Not place any order of CT-PT Sets on the firm for one year.

Further, it shall be ensured that all meters and instruments used during inspection/ testing are calibrated from NABL approved test house and date of calibration should not be older than one year at the date of presenting the same to the inspecting officer.

3.12 COMPLETENESS OF EQUIPMENT:

Any fittings, accessories or apparatus which may not have been specifically mentioned in the specification for 33 KV metering sets covered under the scope of this enquiry, but which are usual or necessary in the equipment of similar type shall be deemed to be included in the contract and shall be supplied by the contractor without extra charges. All plants and equipment shall be complete in all respect whether such details are mentioned in the specification or not.

3.13 NAME PLATE AND MARKING:

- a) The equipment shall have a non detachable type name plate which should be clearly visible and effectively secured against removal having markings as per requirement of IS. In addition, Sr.No., Ratio and date of despatch shall have to be engraved on bushing side of tank with letters of suitable depth & 25 mm height filled with red colour.
- b) The main and load are to be stencilled on top cover on main and load side respectively.
- c) A sticker reading as under must be provided in the HV neutral compartment of secondary box.

“DO NOT REMOVE EARTH LINK WHEN HV TERMINAL IS LIVE” be given in Red colour.

3.14 MAINTENANCE AND GUARANTEE

Performance guarantee of the equipment shall be for the period of 36 months from the date of receipt in stores. The month & year of expiry of guarantee period shall be marked on the name plate. Equipment failed within such guarantee period shall have to be **replaced** free of cost within 45 days of intimation. Bidder shall furnish successful routine test reports of the equipment. If purchaser desires inspection prior to despatch an inspecting officer shall be nominated for verification for the test reports. Failed equipment (s) shall only be lifted after receipt of replacement for the same. Transportation for lifting of defective material & delivery of replaced material shall be borne by the supplier.

3.15 PRICE VARIATION

The prices of 33 KV CT-PT Metering Sets are on ‘VARIABLE’ basis as per prevailing New IEEMA formula w.e.f. 1.6.2005. (Mentioned as Appendix-II) **with base date 01.01.2017**. Rates quoted with ‘FIRM’ prices are likely to be ignored.

3.16 DELIVERY SCHEDULE

The bidder is required to quote monthly delivery. The delivery of quoted quantity should be completed in 8 months period including commencement period of 30 days. In case ordered quantity is different than quoted quantity then monthly delivery shall be adjusted proportionately. Tenders in which monthly delivery schedule is not indicated shall be ignored.

3.17 SCHEDULE OF REQUIREMENT

The following is the requirements for 33 KV CT PT metering sets of various ratios: -

S. No.	Ratio	Quantity
1.	15/5 Amp.	25 Nos.
2.	50/5 Amp.	26 Nos.
3.	200/5 Amp.	2300 Nos.
	Total	2351 Nos.

Note:- The quantities mentioned above are tentative & may be increased or decreased to any extent.

3.18 The offer of the bidder shall meet the qualification requirements endorsed at Annexure-I.

ANNEXURE-‘A’**GUARANTEED AND OTHER TECHNICAL PARTICULARS FOR 33KV CT-PT SETS****(I) FOR 33 KV SINGLE PHASE CURRENT TRANSFORMERS**

S. No.	PARTICULARS		TO BE FURNISHED BY BIDDER		
1	NAME & ADDRESS OF MANUFACTURER.				
2	MANUFACTURER'S TYPE & DESIGN				
3	NOMINAL SYSTEM VOLTAGE (KV rms)				
4	HIGHEST SYSTEM VOLTAGE (KV rms)				
5	INSULATION LEVEL :				
	a) IMPULSE WITHSTAND VOLTAGE (KV PEAK)				
	b) ONE MINUTE POWER FREQUENCY DRY WITHSTAND VOLTAGE (KVrms)				
	(i) PRIMARY(KVrms)				
	(ii) SECONDARY (KVrms)				
	c) ONE MINUTE POWER FREQUENCY WET WITHSTAND VOLTAGE (KVrms)				
6	RATED FREQUENCY (Hz)				
7	TRANSFORMATION RATIO.				
8	RATED OUTPUT (VA BURDEN)				
9	CLASS OF ACCURACY.				
10	SHORT TIME THERMAL CURRENT FOR ONE SECOND (KA rms)				
11	RATED DYNAMIC CURRENT (KA peak)				
12	RATED CONT. THERMAL CURRENT (KA rms)				
13	MAX. INSTRUMENT SECURITY FACTOR.				
14	DETAIL OF WINDINGS.				
	PARTICULARS	CT RATIO	NO.OF TURNS	CROSS SECTIONAL AREA OF EACH TURN IN SQ.MM. (Approx.)	TOTAL WEIGHT OF WDG. IN Kg. PER
	i) PRIMARY		15/5 Amp.		
			50/5 Amp.		
			200/5 Amp.		
	ii) SECONDARY		15/5 Amp.		
			50/5 Amp.		
		200/5 Amp.			

15	GUARANTEED RATIO ERROR (MAX.)	
16	GUARANTEED PHASE ANGLE ERROR (MAX.)	
17	MAX. TEMP. RISE OF THE WINDING OVER AN AMBIENT TEMP. OF 50 DEG. C AT RATED CONTINUOUS THERMAL CURRENT AT RATED FREQUENCY & WITH RATED BURDEN.	
18	i) INSULATION CLASS	
	ii) INSULATION MATERIAL USED.	
19	CORE DETAILS:	
	i) MATERIAL	
	ii) WEIGHT OF CORE	
20	TYPE OF INSULATING OIL WHETHER AS PER IS-335 AND LATEST AMENDMENT.	
21	WHETHER SHORT CIRCULATING ARRANGMENT FOR CTs IS AS PER SPECIFICATION.	
22	BUSHING DETAIL	
	a) MAKE	
	b) CATALOGUE NO.	
	c) TOTAL CREEPAGE DISTANCE (mm)	
	d) IS TO WHICH BUSHING CONFORMS.	
	e) ARCING DISTANCE (mm)	
	f) MAX. CREEPAGE FACTOR.	
23	WHETHER CURRENT TRANSFORMER USED ARE OF RESIN CAST OIL IMMERSSED TYPE OR OTHERWISE.	
24	IS TO WHICH CT CONFORMS.	
25	MAKE OF TERMINAL CONNECTORS.	

(II) FOR 33 KV SINGLE PHASE POTENTIAL TRANSFORMERS

S. No.	PARTICULARS	TO BE FURNISHED BY BIDDER			
1	NAME & ADDRESS OF MANUFACTURER.				
2	MANUFACTURER'S TYPE & DESIGN.				
3	NOMINAL SYSTEM VOLTAGE (KV rms)				
4	HIGHEST SYSTEM VOLTAGE (KV rms)				
5	INSULATION LEVEL :				
	a) IMPULSE WITHSTAND VOLTAGE(KV PEAK)				
	b) ONE MINUTE POWER FREQUENCY WITHSTAND VOLTAGE (KV PEAK)				
6	RATED FREQUENCY (Hz)				
7	RATED TRANSFORMATION RATIO.				
8	RATED OUTPUT (VA BURDEN PER PHASE)				
9	CLASS OF ACCURACY.				
10	RATED VOLTAGE FACTOR AND TIME.				
11	WINDING CONNECTIONS				
	a) PRIMARY				
	b) SECONDARY				
12	DETAIL OF WINDINGS.				
	Particulars	PT Ratio	No. of Turns	Cross-Sectional Area of Each (Sq.mm)	Total Wt. of winding in KG (Approx.)
	i) PRIMARY WINDING (COPPER).				
	ii) SECONDARY WINDING (COPPER). 110 V				
13	GURANTEED RATIO ERROR (MAX.)				
14	GURANTEED PHASE ANGLE ERROR (MAX.)				
15	GURANTEED MAX. TEMP. RISE OF THE WINDING OVER AN AMBIENT TEMP. OF 50 DEG. C AT RATED CONTINOUS THERMAL CURRENT, AT RATED FREQUENCY & WITH RATED BURDEN.				

16	BUSHING DETAIL	
	a) MAKE	
	b) CATALOGUE NO.	
	c) TOTAL CREEPAGE DISTANCE (mm)	
	d) IS TO WHICH BUSHING CONFIRMS.	
	e) ARCING DISTANCE (mm)	
	f) MAX. CREEPAGE FACTOR.	
17	i) INSULATION CLASS	
	ii) INSULATION MATERIAL USED.	
18	CORE DETAILS:	
	i) MATERIAL	
	ii) WEIGHT OF CORE	
19	WHETHER ANY FUSE HAVE BEEN PROVIDED IN SECONDARY SIDE OF PT ?	
20	WHETHER NEUTRAL OF PT FOR HT SIDE IS ISOLATED/FLOATED ?	

(III) OTHER PARTICULARS FOR 33 KV COMPLETELY ASSEMBLED CT-PT SETS.

S. No.	PARTICULARS	TO BE FURNISHED BY BIDDER
1	NAME & ADDRESS OF MANUFACTURER.	
2	OVERALL DIMENSIONS OF CT-PT SET.	
3	MOUNTING DETAILS.	
4	i) TOTAL MASS OF COMPLETELY ASSEMBLED CT-PT SET WITH OIL.	
	ii) MASS OF IST FILLING INSULATION OIL.	
	iii) VOLUME OF OIL (LITRES)	
5	i) MATERIAL OF TANK/ENCLASURE SHEET.	
	ii) THICKNESS OF THE TANK SHEET.(mm)	
	a) BOTTOM.	
	b) TOP COVER	
	c) SIDES	
6	MAKE/MANUFACTURER'S NAME FOR INSU- LATING OIL TO BE USED IN CT-PT SETS.	
7	WHETHER ALL THE FITTINGS AND ACCESSORIES AS PER CLAUSE 3.06 OF SPECIFICATION PROVIDED?	
8	WHETHER SEALING ARRANGEMENT IS AS PER CL.3.05 XXV OF SPECIFICATION	
9	WHETHER CT-PT SETS ARE SUITABLE FOR SATISFACTORY OPERATION UNDER ABNORMAL SYSTEM CONDITION VIZ., SINGLE PHASING SUPPLY ARRANGEMENT BY LOOPING SUPPLY PHASE WITH OTHER LINE PHASE ?	
10	MIN. ELECTRICAL CLEARANCE BETWEEN PHASES. WITH BUSHINGS MOUNTED (MM)	
11	MIN. ELECTRICAL CLEARANCE BETWEEN PHASES. TO EARTH WITH BUSHING MOUNTED (MM)?	
12	WHETHER OIL CONSERVATOR PROVIDED ON CT-PT SET?	

13	ARRANGEMENT PROVIDED TO TAKE CARE OF EXPANSION AND CONTRACTION IN OIL.	
14	WHETHER PRESSURE RELIEF DEVICE PROVIDED?	
15	TEST RESULTS OF OIL AS PER IS : 335	
a)	BREAK DOWN VOLTAGE	
b)	TAN DELTA AT 90 DEG. C	
c)	COLOUR OF OIL (SHALL BE COLOURLESS)	

Schedule – III**AJMER VIDYUT VITRAN NIGAM LIMITED****A Govt. of Rajasthan Undertaking****Prescribed technical specification for supply of 33 KV CT-PT METERING SETS OF VARIOUS RATIOS.**

S. No.	Technical specification to which material/equipment/Machinery/T&P shall confirm	Name of IS/other standard specification to which material should confirm	Other Particulars if any.
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Certified that we agree to all the aforesaid technical specification except at S.No..... for which our technical specification shall be as under:-

S.No.	Technical specification to which material/equipment/Machinery/T&P shall confirm	Name of IS/other standard specification to which material should confirm	Other particulars if any.
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(Signature)Name & Designation
with seal of the bidder.

Schedule – IV

AJMER VIDYUT VITRAN NIGAM LIMITED
A Govt. of Rajasthan Undertaking
SCHEDULE OF PRICES
(Must be filled in the BOQ)

**The Superintending Engineer (MM),
Ajmer Vidyut Vitran Nigam Limited Ajmer.**

With reference to your invitation to bid against specification No. **AVVNL/SE (MM)/TN-1120** we agree to supply at prices (variable) given as follows.

S. No.	Particulars of Material	Quantity offered	Unit Ex-works Price (in Rs.)	Excise duty (Per Unit)		Freight (Per Unit) (In Rs.)	Insurance (Per Unit) (In Rs.)	CST/VAT (Per Unit)		Total Price In Rs. (Per Unit) Col. No. (4+6+7+8+10)	Entry Tax @ ___ % on Col. 11 (In Rs.)	All adjusted unit F.O.R. Destination Price including Entry Tax Col. No.11+12	Total Contract Value (In Rs.)
				Rate	Amt.			Rate	Amt.				
1.	2.	3.	4.	5.	6.	7	8	9.	10.	11	12	13	14

Notes:-

- (i) The bidder is required to quote the prices in the above format only. Bids having prices quoted in other format/manner are liable to be ignored.
- (ii) The bidder must fill each and every column of the above format. Mentioning “extra/ Inclusive” in any of the column may lead for rejection of the price bid.
- (iii) No cutting/ overwriting in the prices is permissible.
- (iv) The unit Ex-work price to be indicated in Col. No. 4 should be exclusive of taxes & duties which are to be indicated in separate columns meant for the purpose.
- (v) In case of price bid break-up is given component wise and also given sum total by the bidder but there is a difference between aggregate of component wise and sum total, then lesser of the two will be taken into account.
- (vi) The prices are variable with **base date 01.01.2017**

Signature of bidder with rubber stamp

Schedule – IV-A**ITEM: 33 KV CT-PT SETS.**

Must be filled in by the bidder and attached with Technical Bid (Part-I)

**To,
The Superintending Engineer (MM),
Ajmer Vidyut Vitran Nigam Limited,
Ajmer.**

Dear Sir,

With reference to your invitation to tender against specification No. AVVNL/SE (MM)/TN-1120, we agree to supply the following quantity:

S. No.	Particulars of Items	Tendered Quantity	Qty. Offered	Justification of quantity offered as per Qualifying Requirement	Status of Type Test Certificates.
1	2	3	4	5	6
	33 KV CT-PT Metering Sets of various ratios				
	15/5 Amp.	25 Nos.			
	50/5 Amp.	26 Nos.			
	200/5 Amp.	2300 Nos.			

1. The offer is valid for a period of 120 days after the date of opening of this tender.
2. It is noted that the quantity as mentioned in the specification are approximate and we agree to supply any quantity as per your requirement.
3. The delivery shall strictly be in accordance with our delivery schedule as given in Schedule-VIII of this specification. In case we fail to deliver the materials as indicated in the clause No.1.23 of GCC (Schedule- II), we are liable to pay recovery for delay in delivery as per clause No.1.24 of this Schedule-II of this specification.
The material shall conform to your specification no. AVVNL/SE (MM)/TN-1120 and as per relevant ISS in all respect.
4. We conform that we agree to all the terms & conditions as well as the technical stipulation of your specification no. AVVNL/SE (MM)/ TN-1120 and there are no deviations other than as specified in the Schedule-VI (A & B).

Yours faithfully,

Dated.

Signature of bidder with stamp

Schedule – V**AJMER VIDYUT VITRAN NIGAM LIMITED****A Govt. of Rajasthan Undertaking**

Statement of guaranteed technical particulars and other performance data for supply of (Name of material) against specification no. AVVNL/SE (MM)/ TN-1120.

S. No. Particulars of technical & other performance data guaranteed.

Certified that we agree to all the aforesaid technical particulars and other performance data except following:-

S. No.	Particulars of technical & other Performance data	Reasons for deviations/departure.
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(Signature)

Name & Designation
with seal of the bidder.

Schedule – VI (A)

AJMER VIDYUT VITRAN NIGAM LIMITED
A Govt. of Rajasthan Undertaking
DEPARTURE/DEVIATION FROM TECHNICAL SPECIFICATION

The bidder shall state under this schedule the departure from the Purchaser's specification in respect of technical is as under:-

S. No.	Main Deviations from Technical Specification.
--------	---

Certified that we agree to all the technical specification of the NIT except for the deviation to the extent indicated above.

(Signature)
Name & Designation
with seal of the bidder.

Schedule – VI (B)

AJMER VIDYUT VITRAN NIGAM LIMITED
A Govt. of Rajasthan Undertaking
DEPARTURE FROM COMMERCIAL TERMS & CONDITIONS OF THE
SPECIFICATION

The bidder shall state under this schedule the departure from the Purchaser's specification in respect of Commercial terms & conditions:-

S. No.	Main Deviations from Specification.
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Certified that we agree to all the commercial terms & conditions as laid down in General Conditions of Contract to the specification except for the deviation to the extent indicated above.

(Signature)
Name & Designation
with seal of the bidder.

Schedule – VII**AJMER VIDYUT VITRAN NIGAM LIMITED****A Govt. of Rajasthan Undertaking****LIST OF PAST SUPPLIES**

The bidder shall state under this schedule whether material and equipments, similar to those offered in the tender have been previously supplied by him. A list shall be given of such orders executed by him together with information regarding the names of purchasing organizations, quantities supplied and when the supplies were effected. This list should be in form given below:-

S. No.	Detailed particulars of items supplied	Qty in Nos.	Order No. & Date	Name & details of purchasing authority	Date of Completion
1	2	3	4	5	6

If executed partially to be executed order	whether still stipulated in	Delivery	Remarks to be mentioned (Qty. in Nos.)
7	8	9	10

Note: Separate schedules are to be furnished by the bidder for past supply to the AVVNL, Ajmer other State Electricity Boards and other Departments /Organizations.

(Signature)
Name & Designation
with seal of the bidder.

SCHEDULE-VII-A

TO WHOMSOEVER IT MAY CONCERN

This is to certify that M/s. _____ (Complete with address) have manufactured and supplied the goods / equipments / material during the following financial year(s) to the Licensed Power Utilities / Government Departments / Discoms/ SEBs as detailed out below:

S. No	Financial year in which material supplied	Detailed Particulars of item(s) supplied	Name and particulars of purchasing authority	Order No. & date against which item(s) supplied	Unit	Ordered		Actual Supplied up to		Remarks
						Quantity	Value (Rs)	Quantity	Value (Rs)	
1	2	3	4	5	6	7	8	9	10	11

Signature

Signature of C.A

Name & Designation

Name :

With Seal of the Bidder

Address:

Date _____

Membership No:

Place _____

The above particulars are true and correct based on explanations, records and books of accounts produced before us. Further the above certificate issued on the request of the company.

CA Firm (_____)

Schedule – VIII**AJMER VIDYUT VITRAN NIGAM LIMITED****A Govt. of Rajasthan Undertaking****DELIVERY SCHEDULE****PART-A**

The delivery schedule of the material by the Purchase Officer is as mentioned hereunder:-

S. No.	Particulars of Material	Commencement period per Month.	Rate of supply per Month	Period for completion of delivery of entire material
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The delivery of quoted quantity should be completed in 8 months period including commencement period of 30 days.

PART-B

In case bidder deviates from the delivery schedule mentioned by the purchaser in Part-A then the delivery schedule shall be indicated/mentioned by the bidder as under:-

S.No.	Particulars of Material	Commencement of Material	Rate of supply period per Month.	Period for completion per Month of delivery of material
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- Note:** 1. During the commencement period the process of model assembly and submission of B.O.M. for approval shall be got completed.
2. During the commencement period the contractual formalities shall be got completed.

(Signature)

Name & Designation
with seal of the bidder

Schedule – IX**AJMER VIDYUT VITRAN NIGAM LIMITED****A Govt. of Rajasthan Undertaking**

List of Equipments and Technical Hands Available with the Firm

(To be filled in by the bidders & enclosed with the bid)

Manufacturers and / or their authorized agents who are quoting against this bid are requested to furnish the following information along-with the bid. The Purchaser will have the discretion to ignore the bid without the under noted particulars and/or ignore the bid particulars.

1. Name and Address of Manufacturer.
2. Place where works exist.
3. Details of machinery particularly with B.H.P. of each item installed.
4. Details of staff employed in the works.
5. Date when started the manufacturing of item under reference.
6. List of items manufactured.
7. Literature and drawings of items manufactured showing their description, size, design and other important technical particulars.
8. Details of order so far, executed alongwith the names of organization to whom supplied.
9. Manufacturing capacity.
10. Is the workshop open for inspection by the representative of the board, if required?
11. Statement of financial resources and Banking Reference alongwith Balance-Sheet for previous two years.
12. Testing facilities available for the manufactured articles in the testing laboratory of works.
13. Whether the Firm is a small/medium/large scale industry.
14. Registration No. with :-
 - i. Small Scale, National/State.
 - ii. D.G.T.D.
 - iii. State Industries Department.

(Signature)

Name & Designation
with seal of the bidder.

Schedule – X**GENERAL PARTICULARS ABOUT THE TENDER IN BRIEF**

	<p>AJMER VIDYUT VITRAN NIGAM LIMITED (MATERIAL MANAGEMENT WING) Corporate Identification Number (CIN)- U40109RJ2000SGC016482 Regd. Off. Vidyut Bhawan, Panchsheel Nagar, Makarwali Road, Ajmer-305004 Phone:-0145-2644529, Fax:-0145-2644542. E-mail:semmavvn@gmail.com, Website-www.avvnl.com</p>
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BID DOCUMENT FOR PURCHASE OF 33 KV CT-PT METERING SETS OF RATIOS 15/5 AMP., 50/5 AMP. & 200/5 AMP. AGAINST TENDER NOTICE NO. TN-1120.

LAST DATE & TIME FOR ONLINE (E-TENDERING) TENDER/OFFER	:	16.02.2017 (Upto 2.00 PM)
DATE & TIME OF ONLINE OPENING OF TENDER	:	17.02.2017 (2.30 PM)
RISL PROCESSING FEE (Non Refundable)	:	Rs. 1000/-
COST OF SPECIFICATION (Non Refundable)	:	Rs. 2500/-
VALIDITY	:	Upto minimum 120 days from the next date of opening of Techno-Commercial Bid
EARNEST MONEY	:	Rs. 5,00,000.00 (Rs. Five Lac only) or Exemption Certificate or Vender Registration of Class “A” category or above
TENDERING QUANTITY	:	33 KV CT-PT Metering Sets 15/5 Amp. – 25 Sets 50/5 Amp. – 26 Sets 200/5 Amp. – 2300 Sets
CONTACT PERSON (AUTHORISED BID SIGNATORY)	:	Superintending Engineer (MM), AVVNL, Ajmer.
CORRESPONDENCE ADDRESS	:	Vidyut Bhawan, Makarwali Road, Panchsheel, Ajmer.
MOBILE NO.	:	9414004258
TELEPHONE & FAX Nos.	:	0145- 2644529/0145- 2644542
WEBSITE & E-MAIL	:	1. Web: www.avvnl.com Email: 2. Web: http://risl.rajasthan.gov.in , Email: info.risi@rajasthan.gov.in
Address of RISL:- Raj COMP Info Services Limited (RISL) 1 st Floor, Yojana Bhawan, Tilak Marg, C-Scheme, Jaipur (Rajasthan) Phone: 0141- 5103902, 4031900 Fax: 0141-2228701 Web: http://risl.rajasthan.gov.in , Email: info.risi@rajasthan.gov.in		

Note:- The bidder, in their own interest, are requested to read very carefully Section-I (Instruction to bidders), Section-II (General Condition of Contract) & Section-III (Technical Specification) before filling the bid. The Bid documents be downloaded from AVVNL website www.avvnl.com or www.http://eproc.rajasthan.gov.in and upload the tender on website of RISL www.http://eproc.rajasthan.gov.in No hard copy of the bidding documents will be provided to the bidders through this office. In case of any discrepancy found in bidding documents downloaded from the website and appended with the bid (as a bid document) and original copy of such document available in the office of Superintending Engineer (MM), Ajmer Discom, Ajmer then the copy available with Superintending Engineer (MM), Ajmer Discom, Ajmer will be considered as final document for all purpose. The cost of Bid document as published in NIT shall be furnished along with EMD one day prior to opening of bid and scan copy be upload on website of RISL. The document shall be downloaded/ uploaded in the manner prescribed in bid document.

1. **Furnishing of Proof of deposition of Cost of Bid Document, Earnest Money/ exemption certificate as per Clause 1.03 & 1.16 of Section-I (Instruction to Bidder) along with downloaded Bid Document is essential otherwise the “BID OFFER” will not be opened. However the bidders who get themselves registered with AVVNL as per Clause No. 1.5.3 of Section-II (General Condition of Contract) before submitting of bid documents against this bid enquiry for supply of quoted items under appropriate category are not required to furnish Earnest Money Deposit. They shall furnish the proof of such valid registration with their bid. Cost of Bid Document shall be furnished in the form of Crossed Bank Draft / Bankers Cheque payable in the name of “Sr. A.O. (EA & Cash), AVVNL, AJMER”. EMD if required shall be furnished in accordance with Clause No. 1.03.1 of Section-I (Instruction to Bidders) and RISL PROCESSING FEE Rs. 1000/- (NON REFUNDABLE) payable to RISL and Rs. 2500/- tender fees payable to “Sr. A.O. (EA & Cash), AVVNL, AJMER”.**
2. The Central and State Govt. undertakings are exempted from furnishing of Earnest money subject to furnishing of such certificate / documentary evidence in support of their being Govt. (Central/State) undertaking.
3. The bidder shall quote the Prices strictly in the manner prescribed in Clause No. 1.09 of Section-I (Instruction to Bidders) & Clause No. 1.33 of Section-II (General Conditions of Contract) in Schedule-IV otherwise their bid is liable for rejection. The price quoted should be variable without any ceiling as per IEEMA price variation formula annexed in Annexure - II. **The Base date for price variation shall be 01.01.2017.**
4. **The bid offer shall be furnished in two parts & shall comply all provisions of Clause No. 1.02 Section-I (instruction to Bidders) and the Bid offer shall be furnished in the following manner:-**
 - i) **First envelope/ cover containing proof of deposition of cost of Bid documents & EMD as under :-**

First: a) Content proof document of tender fee Rs. 1000/- payable to RISL., Jaipur.
Second: b) Content proof document of tender specification fee (i.e. Rs. 2500/-) payable to Sr. Accounts officer (EA & Cash), AVVNL Ajmer.
Third: c) Content proof document of EMD of Rs. 5,00,000.00 (Rs. Five Lac Only) or Exemption Certificate or Vender Registration of Class “A” category or above / A certificate of being a Rajasthan/ Central Govt. undertaking should be clearly written on the front cover on document.
 - ii) **Second envelope/cover for techno-commercial bid. Techno-Commercial Bid’ should be clearly written on the front side of the cover.**

iii) Third envelope/cover for price bid. Cover– III Price Bid’ should be clearly furnished on prescribed format (schedule Fourth) the front side of the cover.

Note:- Envelope/ Cover III containing price bid will be kept unopened in the safe custody at the website RISL. It will be opened at a later date in respect of those bidders whose offers are found / adjudged technically and commercially acceptable. The date of opening of “Price Bid” shall be intimated to successful bidders in due course of time. In case of deviation from the stipulated clauses of bid specifications, price bid of the bidder will not be opened.

- iv) The bidder shall ensure that bid is furnished / submitted strictly in the manner detailed in the Specification.
5. The bids not accompanied with qualification requirement, technical requirement indicated in the specification and other requirement given here under will be considered as incomplete offer and sufficient grounds for offer to be passed over:-
- i) Capacity, capability and competency proofing documents.
 - a) Capacity/orders of similar and higher rating of tendered equipment booked as on date of bidding with type and rating and construction details of equipment for which order received be indicated.
 - b) Copy of purchase orders of Erstwhile RSEB/SEB`S/Electric Utilities/Govt. Departments /Discoms for similar or higher rating equipment latest executed.
 - ii) Year wise past experience for last 5 years of similar or higher rating of tendered equipment.
 - iii) The details of testing facilities available at the works and copies of latest type test certificates, carried out on similar ITEM.
 - iv) Quality assurance plan.
 - v) Complete guaranteed technical particulars, out lines and general arrangement drawings along with Bill of Material.
6. Bids without Section-I, II, III & Schedules (I to X) shall be rejected.
7. AVVNL has the right to reject any offer on the basis of track record of poor performance in execution of Previous order/equipment supplied/after sales service while evaluating the Techno-Commercial bid.
8. AVVNL reserves the right to accept minor deviations in standard terms and also in technical and constructional features as specified in the technical specification (Section-III).
9. Deviation of any kind shall not be quoted in price bid, if found quoted, the same shall be ignored.
10. The following facilities are to be provided by the supplier at his own cost to the inspecting officer of AVVNL.
- A) Suitable accommodation.
- i) Local conveyance between arrival point, place of stay, works and departure point.
 - ii) The supplier shall assist in arranging return ticket and reservation on the request of the inspecting officer for which the payment shall be made by the inspecting officer. In case of joint inspection, single or shared double room accommodation shall be provided.

Note:- If any difficulty arises, in down loading/unloading of tender you may contact in the RISL, Jaipur Rajasthan (Contact no. 0141- 5103902, 4031900) or AVVNL at contact no. 9413391452/9413391481.

ANNEXURE-'B'**IEEMA/PVC/INST.TR (BELOW 72.5 KV)****Effective from 1st June 2005****PRICE VARIATION CLAUSE FOR INSTRUMENT TRANSFORMERS BELOW 72.5 KV
(CURRENT AND POTENTIAL TRANSFORMER DESIGNED FOR OPERATION
SYSTEM VOLTAGE BELOW 72.5 KV).**

The price quoted/confirmed is based on the input cost of raw material/components and labour cost as on the date of quotation and the same 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.

$$P = P_o / 100 (18 + 18 C/Co + 20Es/Eso + 10IS/ISO + 12ER/ERo + 9TB/TBo + 13 W/Wo)$$

WHEREIN:-

- P** = Price payable as adjusted in accordance with the above formula.
- P_o** = Price quoted/confirmed.
- Co** = Average LME settlement price of copper wire bars (refer notes).
This price is as applicable for the month, Two months prior to the date of tendering.
- ESo** = C&F price of CRGO Electrical Steel Sheets (refer notes).
This price is as applicable on the 1st working day of the month, one month prior to the date of tendering.
- ISO** = Wholesale price index number for 'Iron & Steel (Base: 1993-94=100)' (refer notes).
This index number is as applicable for the week ending 1st Saturday of the month three months prior to the date of tendering.
- ERo** = Price of Epoxy Resin (refer notes).
This price is as applicable on the 1st working day of the month, one month prior to the date of tendering.
- TBo** = Price of transformers Oil Base Stock (refer notes).
This price is as applicable on the 1st working day of the month. Two months prior to the date of tendering.
- Wo** = All India average consumer price index number for industrial workers, as published by the Labour Bureau, Ministry of Labour, Govt. of India (Base 1982=100).
This index number is as applicable on the first working day of the month, three months prior to the date of tendering.

For example, if date of tendering falls in October 2005, the applicable prices of Copper Wire Bars (Co) and Transformer Oil Base Stock (TBo) should be for the month August 2005, where as the applicable price of CRGO Electricals Steel Sheets (ESo) and Epoxy Resin (ERo) should be as on 1st September 2005 and Wholesale price index number for 'Iron & Steel (ISO) should be

for the week ending first Saturday of July 2005 and all India average consumer price index number (Wo) should be for the month of July 2005.

The above prices and indices are as published by IEEMA vide circular reference number IEEMA (PVC)/CTPT/_/_prevailing as on first working day of the month.....i.e. one month prior to the date of tendering.

- C = Average LME settlement price of copper wire bars (refer notes).
This price is as applicable for the month, two months prior to the date of delivery.
- ES = C&F price of CRGO Electrical Steel Sheets (refer notes).
This price is as applicable on the 1st working day for the month, one month prior to the date of delivery.
- IS = Wholesale price index number for 'Iron & Steel (Base: 1993-94=100)' (refer notes).
This index number is as applicable for the week ending 1st Saturday of the, three months price to the date of delivery.
- ER = Price of Epoxy Resin (refer notes).
This price is as applicable on the 1st working day of the month, one month prior to the date of delivery.
- TB = Price of Transformer Oil Base Stock (refer notes).
This price is as applicable on the 1st working day of the month, two months prior to the date of delivery.
- W = All India average consumer price index number for industrial workers, as published by the Labour Bureau, Ministry of Labour, Govt. of India (Base 1982 = 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 2005, the applicable prices of Copper Wire bars (C) and Transformer Oil Base Stock (TB) should be for the month October 2005, whereas applicable prices of CRGO Electrical Steel Sheets (ES) and Epoxy Resin (ER) should be as on 1st November 2005 and Wholesale price index number for 'Iron & Steel' (IS) should be for the week ending first Saturday of September 2005 and all India average consumer price index number (W) should be for the month of September 2005.

The date of delivery is the date on which the instrument transformer is notified as being ready for inspection/dispatch (in the absence of such notification, the date of manufacture's dispatch 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. Instrument transformers manufactures import major raw materials like Copper, CRGO Electrical Steel Sheets and TOBS etc. The landed cost of these imported raw materials includes applicable custom duty exclusive of modvatable CVD.

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

(c) The details of prices are as under:-

- 1) The LME price of Copper Wire Bars (in Rs./MT) is the LME average settlement price of Copper Wire Bars for one month prior to the month of the circular converted into Indian Rupees with applicable exchange rates prevailing as on 1st working day of the subsequent month. This price is the landed cost, inclusive of applicable customs duty only but exclusive of countervailing duty.
- 2) The price of CRGO Electrical Steel Sheets (in Rs./MT) is the average CIF price in US \$ per MT converted into Indian Rupees with applicable exchange rate prevailing as on 1st working day of the month, as quoted by primary producers. This price is the landed cost inclusive of applicable customs duty only but exclusive of countervailing duty.
- 3) The wholesale price index number for 'Iron & Steel' is as published by the office of Economic Advisor, Ministry of Industry, Govt. of India, New Delhi with base 1993-94=100. This wholesale price index number is being published weekly on provisional basis. However, the same gets finalized after eight weeks and is normally available after two months. Therefore, we are considering in our calculations this final index for the first Saturday of the months 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 price of Epoxy resin is price quoted by resin manufacturer for their grade CT 5900 or its nearest equivalent.
- 5) The price of TOBS is C&F price (in Rs./K. Ltr) for Group II grade 70 Base Oil as published in ICIS-LOR bulletin for the 1st week of the previous month. This price is normally published in US\$ per US Gallon which is converted in Rs./k.ltr. with applicable exchange rate prevailing on 1st working day of the subsequent month. This price is the landed cost, inclusive of applicable customs duty only but exclusive of countervailing duty.
