

OFFICE OF THE CMD (WEST ZONE)
M.P. Paschim Kshetra Vidyut Vitaran Co. Ltd.
G.P.H. Compound, Pologround, Indore.



Tender Specification No.CMD/WZ/06/PUR/435,
Due for opening on: - 17.06.2010 AT 3.30 P.M.

**SUPPLY OF 5 MVA & 8 MVA 33/11 KV,
POWER TRANSFORMERS**

Issued by:

The Chief Engineer (Corp. Office - Pur)

O/o CMD (West Zone),

M. P. Paschim Kshetra Vidyut Vitaran Co. Ltd,

G.P.H. Compound, Pologround,

Indore (M.P.)

EPABX No.: 0731-2422045, 2423263, 2422544, Extn. 151 & 303 Fax No: 2423300.

**ITEM: SUPPLY OF 5 MVA & 8 MVA, 33/11 KV, POWER
TRANSFORMERS**

DUE FOR OPENING ON 17.06.2010 At 3:30 PM

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Basic Tender Information

Particulars	Details
Name of Work	SUPPLY OF 5 MVA & 8 MVA, 33/11 KV, POWER TRANSFORMERS
Tender Specification number	CMD/WZ/06/PUR/435
Date of Sale of Tender documents	From 17.05.2010 to 17.06.2010 upto 12.00 Noon.
Last Date of Bid Submission (Date & Time)	17.06.2010 At 3.00 PM.
Due Date of Opening of Technical & commercial bids	17.06.2010 At 3.30 PM.
EMD to be Deposited	Rs 50,000/-
Cost of Tender Documents	Rs 10,000/- plus Rs 300/- extra if desired by post.

M.P. PASCHIM KSHETRA VIDYUT VITARAN CO. LTD., GPH COMPOUND, POLOGROUND, INDORE
Phone No. 0731-6510550 Fax No: 0731-2421040, E-mail:- sevswz@gmail.com

No. CMD/WZ/06/PUR/8628

Indore dated: 12.05.2010

NOTICE INVITING TENDERS

Sealed tenders are invited for following items by the dates indicated here under: -

Sr. No.	T.S. No. CMD/WZ/06/PUR/	Name of Item	Approx. quantity	Cost of Tender Document (Rs.)	Last date for submission & opening
1	435	33/11 KV, 5 & 8 MVA Transformers	74 Nos	10,000	17.06.10
2	436	11/0.4 KV, 16& 25 KVA Dist. Transformer (Conventional, Alu. wound)	4000 Nos	10,000	14.06.10
3	437	11/0.4 KV, 100 KVA Dist. Transformer	5000 Nos	10,000	14.06.10
4	438	11/0.4 KV, 200 & 315 KVA Dist. Transformer	1450 Nos	10,000	18.06.10
5	439	11KV & 33 KV VCB	400 Nos.	10,000	30.06.10
6	440	ISI Marked, LT CT operated three phase four wire accuracy class 0.5S LCD display Meter with AMR compatibility along with Modem	8000 Nos.	10,000	21.06.10
7	441	(1) M.S. Sections H- Beam @37.1 Kg/m - 15, 13, 11 & 9 Mtr, Long (2) M.S. Sections RSJ-175x85 mm @19.6 Kg/m - 9.3 & 6M long	11500 MT 3500 MT	10,000	11.06.10
8	442	(1) MS Channel 100x50x6 mm (2) MS Channel 75x40x6 mm (3) MS Angle 75x75x6 mm (4) MS Angle 65x65x6 mm (5) MS Angle 50x50x5 mm (6) MS Flat 50x6 mm	1000 MT 300 MT 250 MT 500 MT 400 MT 50 MT	10,000	11.06.10
9	443	AAAC Conductors Conforming to IS-398 (Part-4) (1) 100 Sq. mm. (2) 80 Sq. mm. (3) 55 Sq. mm. (4) 34 Sq. mm.	900 KM 2000 KM 10000 KM 2000 KM	10,000	16.06.10
10	444	(1) 33 KV Pin Insulator (2) 11 KV Pin insulator (3) 45 KN Disc Insulator	19000 Nos. 77000 Nos. 55000 Nos.	5,000	15.06.10
11	445	DPC Aluminum Wire & Strips	213 MT	5,000	15.06.10
12	446	EHV Gr. II New Transformer Oil	775 KL	5,000	15.06.10

Note: - (1) Complete details of the tenders are available on our website- www.mppkvcl.org. The tender documents must be purchased from the Chief Engineer (Corporate Office), O/o CMD (WZ), M.P.P.K.V.V.Co.Ltd.,G.P.H. Compound, Polo-ground, Indore. Tender document will be available from 17th May 2010. The tender document will not be sold on the date of opening of the bid. Rs. 300/- shall be payable extra with the Cost of tender form, If required by Post.

(2) Earnest Money for each tender will be Rs. 50,000/- in the form of Bank Draft/ Pay Order in favour of M.P.P.K.V.V.Co.Ltd, Indore payable at Indore.

Expression of Interest

The M.P.P.K.V.V.CO. Ltd. Indore invites **Expression of Interest** from interested manufacturers of Compact Fluorescent Lamp/ Traders who intends to participate in CDM based CFL scheme "**Bachat Lamp Yojana**" for implementing the Project. The details of the project are available on the web site of the Company at www.mppkvcl.org (under Tender Section). You can mail your queries to sevswz@gmail.com or send FAX at 0731-2421040. The Submission of intent is due on 28th Jun 2010 up to 15:00 hrs.

T.S. No. CMD/WZ/06/PUR/435 Due on 17.06.2010
33/11 KV, 5 & 8 MVA Power Transformers

**OFFICE OF THE CMD (WEST ZONE) M.P.P.K.V.V.C.L.
G.P.H. COMPOUND POLOGROUND INDORE**

Postal Order/Demand Draft No.....

Tender issued to M/s
.....
.....
.....

TENDER FORM

The undersigned hereby tender and offer (subject to the MPPKVVCL's conditions of tendering) the **M.P. Paschim Kshetra Vidyut Vitaran Company Ltd., Indore** to supply the plant, machinery and materials and execute and do the several works and things which are described or referred to in the Details of Technical Particulars attached to tender document no.CMD/WZ/06/PUR/435 dated 12.05.2010 and its enclosure and in Schedules to the side Details of Technical Particular Copies of which are annexed here to and which under the terms thereof are to be supplied, executed and done by the contractor and to perform and observe the provisions and agreements or the part of the contract contained in or reasonable to be referred from the said tender documents for the sums and at the rates sets out in Schedule –I annexed here to.

The questionnaire enclosed with this tender document has been fully answered and is enclosed herewith (if the questionnaire is not answered in full, the answer to various question may be taken so as to be advantageous to the Company unless contrary is mentioned in the body of the tender.

Date the Day of.....

TENDERER'S SIGNATURE
(With Seal)

Tenderers Address: -
.....
.....

PART-I
ANNEXURE-III

IMPORTANT INSTRUCTIONS TO THE BIDDERS FOR SUBMITTING TENDER

1. **GENERAL:** -
Chief Engineer (Corp. Office - Pur) O/o CMD (WZ) on behalf of "Madhya Pradesh Paschim Kshetra Vidyut Vitran Co., Ltd., Indore hereinafter referred to as "Discom-WZ" invites sealed tenders/bids for supply of 5 MVA & 8 MVA, 33/11 KV, Power Transformers from the manufactures in accordance with the attached specifications for supply to various Area Stores of Discom-WZ.
2. The tenderer should read carefully these important instructions for compliance before submitting the bid.
3. The tender is in three parts as explained below:-
 - (a) PART-I: This part is fulfilling the requirement of deposit towards Earnest Money. The tenderer in this envelope should put either the original money receipt in support of having deposited cash with R.A.O., MPPKVCL, Indore towards Earnest Money OR the Bank Draft for the purpose OR the photocopy of the Permanent Registration of the firm with District Industries center as SSI Unit of M.P. for the items quoted duly attested by the General Manager of DIC of the area. Photo copy of valid registration certificate issued by NSIC for small or medium scale unit, as the case may be (as validity of certificate is three years as per NSIC, the certificate should be re-validated, in case date of issue/last re-validation is more than three years old)
 - (b) PART-II : Envelope for this part shall contain Technical and Commercial aspects of the Bid and documents supporting the same.
 - (c) PART-III : Main envelope of this part shall contain the Price Bids of different ratings which are further to be kept in separate envelopes. For details please go through the clause No.-23 of Annexure-I.

Please note that price bids found in single envelope shall be out rightly rejected.

4. **METHOD OF SUBMISSION OF BIDS AND THEIR OPENING:**
 - (a) There has to be three envelopes for each of the Parts of the Bid as explained in point-2 above. All the three envelopes shall then be put in one main envelope. The main envelope shall be super scribed as under:-
 - (I) T.S.NO.CMD/WZ/06/PUR/435 DUE FOR OPENING ON 17.06.2010
 - (II) "THIS ENVELOPE CONTAINS THREE ENVELOPES TOWARDS PART-I, II AND III OF THE BID"

(III) "IT IS CERTIFIED THAT:-

WE CATEGORICALLY AGREE TO THE FOLLOWING CLAUSES OF THIS TENDER SPECIFICATION:-

- | | | |
|-----|------------------------|----------|
| (a) | PAYMENT TERM | : AGREED |
| (b) | SECURITY DEPOSIT | : AGREED |
| (c) | PENALTY | : AGREED |
| (d) | PERFORMANCE GUARANTEE | : AGREED |
| (e) | PRICE VARIATION CLAUSE | : AGREED |

In absence of above certification on the main envelope itself, the same shall not be opened and the offer is liable for rejection.

- (b) Even, after certification on the body of the main envelope, if any ambiguity is found in any part upon opening of the main envelope or even after opening of the subsequent envelopes, the offer shall be rejected.
- (c) In addition to the super-script as detailed above on the main envelope, each of the three envelopes towards part-I, II & III are to be super scribed as under:-

"Part-I/II/III (as the case may be) of Tender Specification No.CMD/WZ/06/PUR/435 due for opening on 17.06.2010".

- (d) Upon successful verification of the fulfillment of the requirement of earnest money deposit on opening of envelope of Part-I, second envelope towards Part- II shall be opened on the same day. The price bid i.e. Part-III shall be opened at a later date for the tenderers who will fulfill the eligibility criteria of the tender. This date shall be intimated to such all tenderers, separately.
5. The Questionnaire appended in Schedule-III should be very clearly answered.
6. The quoted prices should be "VARIABLE" and indicated strictly in the format appended with this tender specification in Schedule-I.
7. Discom-WZ may not entertain any deviation from commercial terms & conditions as specified in the Tender Specification and the offers showing deviations are likely to be rejected.
8. To enable us quick and easy examination and evaluation of the bids, it is advised to follow the following instructions while submitting bids:-
- a) The tender copy purchased by you need not be returned to this office.
- b) Photocopies of the orders/performance reports received from other Electricity Boards/Govt. undertakings/ DISCOMs engaged in distribution of power supply should be enclosed, in case no orders received from MPSEB in the past. However, the details

of the past experience either of MPSEB or of other SEB/Utilities/ DISCOMs have to be given in **Schedule –V**

- c) Following documents consisting part of Commercial & Technical bid i.e. Part-II should be put in the following sequence:-
- (i) Tender Form in original.
 - (ii) Schedule-II - Details of type tests carried out.
 - (iii) Schedule-III - Guaranteed Technical Particulars.
 - (iv) Schedule-IV (A), (B) &(C) - Questionnaire duly answered.
 - (v) Schedule-V (A) - Performance and past experience.
 - (vi) Schedule-V (B) &(C)-Commercial & Technical deviations.
 - (vii) Schedule-VI - Source of Material.
 - (viii) Schedule-VII - Declaration.
 - (ix) Certificates towards Capacity, latest Sales tax clearance, latest Income tax clearance, Type test Reports of the tendered design (rating-wise) issued within last five years from the date of opening of tender.
 - (x) Printed literatures towards Technical Specifications etc.
- d) In Part-III of the Bid, only price bid has to be kept, which should be strictly in our prescribed format (Schedule-I).

9. **Pre-qualifying eligibility criteria for participants in tender.**

- (i) State / out state firms, who have supplied 33/11 KV power transformers to MPSEB/DISCOMS of M.P. in the past.
- (ii) New state units, who have not been considered for order of 33/11 KV transformers in the past and have supplied new 11/.4KV distribution transformers to MPSEB/ DISCOMS of M.P after successful type test results.
- (iii) New out state firms, who have not been considered for placement of order of 33/11 KV power transformer by MPSEB / DISCOMS of M.P in the past but have supplied minimum 10 Nos. 33/11 KV power transformers of tendered rating or higher rating to any other Electricity Board/power utility after successful type test.
- (iv) “No two or more concerns in which an individual is interested as a proprietor and / or partner shall tender for the execution of the same work. If they do so, all such tender shall be liable to be rejected”.

10. **POOL RATES:**

The bidders, specially the SSI Units of the State, are advised to quote their own individual rates. It may please be noted that if the same rate is quoted by more than one bidder, suggestive of a cartel, then such offers may not be considered by the Discom-WZ. It may also please be noted that the competitive rate quoted by each

tenderer may be one of the main criteria for quantity to be ordered on each successful bidders.

11. **FACTORY INSPECTION OF NEW FIRMS :**

In case of new firms/participants quoted for the first time, their factory inspection shall be carried out by the Discom-WZ's representative(s) prior to execution of the trial order placed on them with a view to ascertain whether they are a qualified manufacturer and are having adequate facilities, technical know how for manufacturing the quoted item. The satisfactory report of factory inspection of such new firms shall be an essential requirement for them for execution of the trial order against the instant tender.

12. **BASIC QUALIFICATION OF BIDDERS:**

Bid is invited from such firms only who are fulfilling pre-qualifying eligibility criteria indicated in clause-2 of "Important Instructions to Bidders" of the tender document.

Apart from pre-qualifying criteria, manufacturers should provide satisfactory evidence:

- (a) That they are a qualified manufacturer who regularly manufactures the equipment/material of the type specified and have adequate technical knowledge and practical experience.
- (b) That they do not anticipate change in the ownership of their company during the proposed period of contract, (if such a change is anticipated, the scope and effect thereof shall be defined).
- (c) That, they have adequate financial stability and status, to meet the financial obligations pursuant to the scope of the assignments (The Bidders should submit at least two copies of their profit and loss account and balance sheet for the last two years including Turn-over).
- (d) That, they have adequate plant and manufacturing capacity available to perform the assignment properly and expeditiously within the time period specified. The evidence shall consist of written details of the installed manufacturing capacities and present commitments (excluding the assignment under this specification). If the present commitments are such that the installed capacity results in inadequacy of the manufacturing capacities to meet the requirement of equipment/material corresponding to be to this bid, then the details of alternative arrangement to be organized by the Bidder for this purpose shall also be furnished.
- (e) That they have established quality assurance systems and organizations designed to achieve high level of quality equipment and reliability during their manufacturing activities.
- (f) That the offered rating of your make power transformer must be type tested for short circuit & Lightning impulse voltage with stand test from NABL Accredited Laboratory. The type test certificates should not be more than 5 years old on the date of opening of

tender. Offers received without type test certificates of the transformers shall be out rightly rejected.

13. REQUIREMENT FOR OPENING OF PRICE BIDS:

The price bids of such offers of manufactures shall be opened who have:-

- (i) Accepted all Commercial terms & Conditions and Technical Specifications.
- (ii) Submitted detailed Short Circuit, Lightning Impulse Voltage Withstand tests reports of your make Power Transformer.
- (iii) Type test reports should not be more than five years old on the date of opening of tender.
- (iv) Fulfilling the pre qualifying eligibility criteria as mentioned in Clause No. 9 above.

14. PRICE CONSIDERATION ZONE:-

Subject to fulfilling the financial, experience and techno-commercial criteria, the MPPKVVCL reserves the right to distribute the quantities amongst the bidders other than lowest also. While in the normal course counter offer shall be limited to the bidders whose computed FOR rate including taxes, duties and freight, other levies is within the price band of 1.15 times of the lowest acceptable offer on merit basis; the Company also reserves the right to examine and accept the offers beyond above price band on counter offer price basis in case of urgency.

15. UNSATISFACTORY PERFORMANCE

Even on fulfillment of all the criteria it may please be noted that:-

- (i) Offers of those bidders who have been debarred/black listed for future business with our company/MPSEB/other Discoms, may be summarily rejected.
- (ii) In case of those bidders whose past performance has not been satisfactory against previous tenders of MPSEB / Companies formed on restructuring of MPSEB, they may not be considered for order. Following shall attribute to poor performance of a bidder:-
 - * Non-execution of previous order(s)/inordinate delay in supply of material.
 - * Failures of material in testing & non-replacement of the same by the supplier.
 - * Failures of material enmasse as reported by the field officers.

Sd/-
Chief Engineer (Corp. Office - Pur)
O/o CMD (WZ), MPPKVVCL,
Indore

ANNEXURE – VI

**TECHNICAL SPECIFICATION FOR
THREE PHASE 33/11 KV STEP DOWN POWER
TRANSFORMERS OF 5 & 8 MVA RATINGS**

1. SCOPE:

The specification covers the design, manufacture testing and inspection before dispatch and delivery at places anywhere in Discom-WZ as per list of consignee area stores. The specification covers oil immersed, naturally air cooled (type ON), outdoors type, three phase, 50 Hz, 33/11 KV step down power transformers of 5 & 8 MVA capacities.

2. APPLICABLE STANDARDS:

- (A) Unless otherwise modified in the specification, the transformers shall comply with the requirement of ISS: 2026 (latest issue) or any equivalent International Standards and REC specification 2/1973 and ISS: 2099 (latest issue) or any equivalent International Standards. The bushings used shall conform to ISS: 2099 (latest issue) or any equivalent International Standards except as modified herein.
- (B) **Type:** - The transformers shall be double wound, three phase oil immersed, oil natural cooled (type 'ON'), core type suitable for outdoor installation in tropical climate and shall be insulated with minimum DPC insulation on HV & LV windings. Insulation should be of temperature class as per the temperature rise stipulated in this specification.

Climatic Conditions

i)	Peak outdoor temperature:	50°C
ii)	Maximum oil temperature: Attainable	(50°C + 45°C) 95°C under max temperature & max. Load condition
iii)	Maximum relative humidity:	95%(sometime approaches saturation point)
iv)	Minimum relative humidity:	10%
v)	Average No. Of thunderstorm	40 days
vi)	Average number of rainy days per annum	90 days
vii)	Number of months of tropical Monsoon conditions	3 months
viii)	Average annual rainfall	125 cm
ix)	Wind pressure	100 Kg/m ²
x)	Altitudes not exceeding	1000 meters.

(C) **Design and standardization:**

- i) The transformers and accessories shall be designed to facilitate operation, inspection, maintenance and repairs. All apparatus shall also be designed to ensure satisfactory operation under such sudden variations of load and voltage as may be met with under working conditions on the system, including those due to short circuits.
- ii) The design shall incorporate every reasonable precaution and provision for the safety of all those concerned in the operation and maintenance of the equipment keeping in view the requirement of Indian Electricity Rules & Acts.
- iii) All material including bought out items like bushings, oil radiators, conductor and insulating materials used shall be of the best quality and of the class most suitable for working under the conditions specified and shall withstand the variation of temperature and atmospheric conditions arising under working conditions without undue distortion or deterioration or setting up of undue stresses in any part and also without affecting the strength and suitability of the various parts for the work which they have to perform.
- iv) Corresponding parts liable to replacement shall be interchangeable.
- v) Cast iron shall not be used for chambers of oil filled apparatus or for any part of the equipment, which is in tension or subject to impact, stresses or where corrosion due to acidity or sludging is likely to occur. This clause is not intended to prohibit the use of suitable grades of cast iron for parts where service experience has shown it to be satisfactory e.g. large valve bodies.
- vi) All outdoor apparatus, including bushing insulators with their mounting shall be designed so as to avoid external pockets in which water can collect and internally air could trap.
- vii) All taper pins used in any mechanism shall be of the split type complying with IS:2593 or any equivalent International Standards for these items.
- viii) All connections and contacts shall be of ample section and surface for carrying continuously the specified currents without heating and fixed connection shall be secured by bolts or set screw of common size adequately locked against vibration. Lock nuts shall be used on stud connections carrying current.
- ix) All apparatus shall be designed to minimize the risk of accidental short circuit caused by animals, birds or vermin.

3. STANDARD RATINGS:

The standard ratings shall be 5000 KVA & 8000 KVA with off load current taps.

4. CONTINUOUS MAXIMUM RATING:

The transformers shall have a continuous maximum rating at the specified normal ratio, frequency and temperature rises.

- (a) All transformers shall be capable of operation continuously in accordance with IS loading guide at their continuous maximum rating and at any ratio without exceeding temperature rise.
- (b) Transformers with tapping ranges extending more than 9% below normal voltage shall meet the temperature rise limits specified in IS:2026 or any equivalent International Standards. On other tapings, they shall operate continuously without injurious heating. The loading of the transformers is to be in accordance with IS:6600 - guide for loading of oil immersed transformers natural cooled units or any equivalent International Standards.
- (c) The transformers shall be capable of operation without danger at other than rated voltage and frequency in accordance with clause 4.3 and 4.4 of IS:2026 (Part I) 1977 or any equivalent International Standards.

5. MAXIMUM TEMPERATURE RISE:

The maximum temperature rise in each transformer tested at its continuous maximum rating shall not exceed the following limit with reference to ambient air temperature.

- i) Temperature of oil by thermometer: 45°C
- ii) Temperature of winding by test resistance: 50°C

6. NO LOAD VOLTAGE RATIO:

The no load voltage ratio corresponding to the principal tapping shall be 33,000/11,000 volts.

7. MAXIMUM CURRENT DENSITY:

The current density for HV and LV winding should not exceed 2.5 Amps/mm².

8. FLUX DENSITY: OVER FLUXING:

- (A) **Flux density** should not be more than 1.55 Tesla at the rated voltage and frequency.
- (B) **Over fluxing** - Requirement in this regard shall be governed by the provision contained in clause 3.1.7 of manual on transformer Section 'A' (Revised 1987) of CBIP. According to this, over fluxing the transformer continuously for over fluxing factor up to 1.1. In addition to this requirement, operation of power transformer without any danger/damage up to 60 Sec. for over fluxing factor of 1.25.

9. GUARANTEED NO LOAD AND LOAD LOSSES:

The Guaranteed losses shall be given as below:

Rating in MVA	No Load losses (In KW)	Load losses at 75°C (In KW)
5 MVA	5.5	33
8 MVA	6.5	46.0

One unit will be required to undergo for routine / acceptance test including loss measurement by independent agency i.e. CPRI, NABL, Accredited Govt. Laboratory at firm's cost in presence of Discom's representative.

9.1 GUARANTEED LOSSES AND PENALTY TOWARDS EXCESS MEASURED LOSSES.

(a) However, in case during final testing of transformer received against the aforesaid guaranteed no load & load losses, if the measured losses are found to exceed from the guaranteed no load & load losses (that too within permissible limit of ISS: 2026 clause No. 11.1) the penalty for excess losses found would be calculated as indicated here under: -

Penalty shall be calculated for no load losses & load losses separately of excess losses limited to respective tolerance limit specified in the ISS.

For the purpose of calculating penalty the fractional values of percentage excess losses would be rounded of to next higher number and the highest percentage of the percentage excess loss of individual no load & full load losses shall be considered for calculating the loss penalty as detailed here under: -

The percentage of excess losses shall be deducted from the total quoted rates on equal percentage basis. For example: If the excess losses are 2 % of guaranteed losses, then the quoted prices (inclusive of price variation if any) shall be reduced by 2 % and deducted from the bills for supply affected.

In case if the measured losses are found lower than the guaranteed figures, no bonus shall be given.

(b) Notwithstanding any thing cited above, the MPPKVVCL reserve the right to reject the transformers for the losses exceeding guaranteed losses beyond tolerance limit losses as well as in case of temperature rise of oil and winding exceed guaranteed value and or impedance value differ from guaranteed value including tolerance, the supplier shall replace the transformers within a reasonable period, as decided by the MPPKVVCL at no extra cost.

(c) While the Tenderers may offer their own design, it may be noted that the transformer losses at 75°C should not exceed the prescribed limit as already specified in foregoing para.

10. OIL:

Transformer oil to be used for first filling shall comply with the specification indicated hereunder. Generally as per IS: 335-1993 (4th revision) or any equivalent International Standards & REC specification No.39/1985 except in so far as values indicated separately as per Board's specification for EHV Grade Oil.

(A) New oil:

Insulating oil for Transformers & Switchgears shall be as per ISS-335-1993 (4th revision) or any equivalent International Standards incorporating up to date amendment and additional characteristics as incorporated below. It will be pure hydrocarbon mineral oil, clean and sufficiently free from moisture and of other foreign matter likely to impair its properties.

The test results for the characteristics of the oil when tested in accordance with ISS 335-1993 (4th revision) or any equivalent International Standards incorporating up to date amendment and additional characteristic required by us shall be as hereunder: -

S. No	Schedule of Characteristics (Clause 5.1 & 9.1 of ISS)	Requirement of transformer oil	Reference to Test methods as per ISS-335-1993 read with latest amendment or Equivalent International Standard
1.	Appearance	Oil shall be clear & transparent, Free from suspended Matter or sediments.	A representative & sample of oil shall be examined In 100 mm thick Layer at 27°C
2.	Density at 29.5°C (Max.)	0.89 g/cm ³	IS:1448-1977
3.	Kinematics Viscosity (Max.) at 27°C	27 cst	IS:1448-1976
4.	Interfacial tension At 27°C (Min.)	0.04 N/m	IS:6104-1971
5.	Pour point (Max.)	(-) 6°C	IS:1448-1970
6.	Water Content (Max.)	50 ppm	IS:13567 - 1992
7.	Flash Point Pensky Marten (Closed)(Min.)	140°C	IS:1448-1970
8.	Neutralization value (a) Total acidity (Max.) (b) Inorganic acidity/ Alkalinity	0.03 mg KOH/gm NIL	IS:1448-1967 IS:1448-1967
9.	Corrosive Sulpher	Non-corrosive	Annexure-B
10.	Electric Strength (Break down voltage) (a) New unfiltered oil (Min.) (b) New oil after filtration (Min)	30 KV (rms) 60 KV (rms)	IS:6972-1972

S. No	Schedule of Characteristics (Clause 5.1 & 9.1 of ISS)	Requirement of transformer oil	Reference to Test methods as per ISS-335-1993 read with latest amendment or Equivalent International Standard
11.	Dielectric dissipation factor (Tan delta) at 90°C (Max)	0.002	IS:6262-1971
12.	Specific resistance (resistivity) a) At 90°C (Min) b) At 27°C (Min)	35x10 ¹² Ohm-cm. 1500x10 ¹² Ohm-cm.	IS:6103-1971
13.	Oxidation stability a) Neutralization value After oxidation (Max.) b) Total sludge after Oxidation (Max.)	0.40 mg KOH/gm. 0.10% by weight	Annexure-C of IS:335-1993
14.	S.K. Value	under consideration	Annexure-C of IS:335-1993
15.	AGEING CHARACTERISTICS Ageing characteristics after accelerated ageing (open beaker method with copper catalyst). a) Specific resistance (resistivity) i) At 27°C (Min.) ii) At 90°C (Min.) b) Dielectric dissipation factor (Tan Delta) at 90°C (Max.) c) Total acidity (Max.) d) Total sludge value (Max.)	2.5x10 ¹² Ohm-cm 0.2x10 ¹² Ohm-cm 0.20 0.05 mgKOH/gm. 0.05% by weight	IS:12177-1987 (Method – A) IS:6103-1971 IS:6262-1971 IS:1448-1967 Annexure -A of IS:12177
16.	Presence of oxidation Inhibitor	The oil shall contain anti oxidant additives	IS:13631: 1992

(B) **Characteristics of oil in the transformer:**

The important characteristics of the transformer oil after it is filled in the transformer (within 3 months of filling) shall be as follows:

S.No.	Characteristics	Specification
1.	Electric strength (breakdown voltage)	40 KV (Min.)
2.	Dielectric dissipation factor (tan delta at 90°C)	0.01 (Max.)
3.	Specific resistance (Resistivity) at 27°C	10 x 10 ¹² Ohm.cm
4.	Flash point, P.M. (closed)	140°C (Min.)

5.	Interfacial tension at 27°C	0.03 N/m (Min.)
6.	Neutralization value (total acidity)	0.05 mg KOH/g (Max.)
7.	Water content PPM	35 (Max.)

11. TAPS:

- 11.1 Off-load tap transformers shall have taps ranging from +3% to -9% in steps of 3% each on HV winding for HV variation, to give normal 11 KV on LV side.
- 11.2 The tap changing switch shall be located in a convenient position so that it can be operated from ground level. The switch handle will be provided with a locking arrangement alongwith tap position, indication and direction for operation, thus enabling the switch to be operated and locked in position. Tap operation shall result in simultaneous positive change on all three phase, with spring loaded snap action and ensure positive pressure contact.

12. WINDING CONNECTIONS & VECTORS:

- 12.1 The primary winding shall be connected delta and secondary winding star as per vector symbol Dy.11 (IS: 2026) or any equivalent International Standards so as to produce positive displacement of 30° from the primary to the secondary vector of the same phase (vector rotation assumed counter-clock wise).
- 12.2 The neutral point of the secondary (LV winding) is intended for solidly earthed system and should be brought out to a separate insulated terminal, enabling external insertion of a current transformer in the earth lead to be connected wherever required.
- 12.3 All windings of transformers shall have uniform insulation when tested in accordance with ISS: 2026/1977 or any equivalent International Standards. The minimum basic impulse withstands level of windings for 1.2/50 micro sec. full wave shall be as given below: -

- i) 11 KV - 75 KV Peak
- ii) 33 KV - 170 KV Peak

13. PERCENTAGE IMPEDANCE AND TOLERANCE (OTHER THAN NO LOAD AND LOAD LOSSES) SHALL BE AS UNDER: -

- a) **Percentage impedances** - Percentages impedance value for power transformers at 75°C on principal tap shall be as follows:

Rating	Percentage impedance value at 75°C
5000 KVA	7.15
8000 KVA	8.35

b) Tolerance

Item	Tolerance
Voltage ratio at no load On principal tapping	the lower of the following values: a) (+ / -) 0.5% of the declared ratio b) A percentage of the declared ratio equal to 1/10 of actual percentage impedance voltage at rated current
Impedance voltage at Rated current (Principal tapping & Other tapping)	Requirement in this regard shall be governed by the provision indicated in IS:2026 (Part-IV) – 1977 Para 3.1.4.1 for principal tapping and as per Provisions contained in Para 3.1.4.2 for other tapping or any equivalent International Standard.
No load current	(+) 30% of the declared no load current

14. TRANSFORMER TANK:

The main tank of the transformer shall be made of good quality steel sheet of adequate thickness to provide sturdy and robust construction to withstand extreme pressure conditions. The internal and external surfaces including oil filled chambers and structural steel work to be painted shall be shot or sand blasted to remove all rust and scale of foreign adhering matter or grease. All steel surfaces in contact with insulating oil shall be painted with two coats of heat resistant, oil insoluble, insulating varnish. Steel surfaces exposed to weather shall be given a primary coat of zinc chromate, second coat of oil and weather resistant varnish of color distinct from primary and final two coats of glossy oil and weather resisting paint in accordance with the color shade as specified. All paints shall be carefully selected to withstand extremes of weather. The paint shall not scale off or crinkle or be removed by abrasion due to normal handling. The minimum thickness of outside painting of tank shall be 20 microns and the total thickness shall be minimum 80 microns. The main tank exclusive of all accessories but with radiators shall be suitable to withstand application of vacuum up to 760 mm of HG. Adequate reinforcement shall be provided for this purpose and to withstand vibration.

14.1 Pressure Test:

One transformer tank shall be subjected to a pressure corresponding to twice the normal head of oil or to the normal pressure plus 35 KN/m² (5lb/sq.in) whichever is lower, measured at the base of the tank and will be maintained for one hour during stage inspection. The permanent deflection of flat plates, after the excess pressure has been released shall not exceed the figure specified below:

Horizontal length of flat Plate (in mm)	Permanent deflection (in mm.)
Up to and including 750	5
751 to 1250	6.5
1251 to 1750	8
1751 to 2000	9.5
2001 to 2250	11
2251 to 2500	12.5
2501 to 3000	16
Above 3000	19

14.2 **Conservator:**

- (i) A conservator complete with sump and drain valve shall be provided in such a position so as not to obstruct the electrical connections of the transformer having a capacity between highest and lowest visible levels to meet the requirement of expansion of the total oil volume in the transformer and cooling equipment from the minimum ambient temperature of (-) 5°C to 95°C. The minimum indicated oil level shall be with the feed pipe from the tank covered with not less than 15 mm depth of oil and the indicated range of oil level shall be minimum to maximum.
- (ii) If the sump is formed by extending the feed pipe inside the conservator, this extension shall be for at least 25 mm.
- (iii) One oil gauge magnetic type with provision for low levels alarm shall be mounted on conservator to indicate the minimum normal and maximum level as given below:

Minimum	(-) 5°C
Normal	30°C
Maximum	100°C
- (iv) One prismatic type oil indicator should also be provided on the conservator.
- (v) One end flange of the conservator shall be bolted into position so that it can be removed for cleaning purpose.
- (vi) The oil connection from transformer tank to the conservator vessel shall be arranged at a rising angle of 3 to 9° to the horizontal up to gas and oil actuated relay.

- (vii) Each conservator vessel shall be fitted with a aluminum die cast breather in which Silica gel (at least three Kg.) is the dehydrating agent and designed so that:
 - (a) The passage of air is through silica gel.
 - (b) The external atmosphere is continuously in contact with silica gel.
 - (c) The moisture absorption indicated by a change in colour of the tinted crystals can be observed from distance.

Breathers shall be mounted at approximately 1400 mm. Above ground level.

14.3 **Radiators:**

Arrangement for good quality sufficient number of radiators should be made to meet out the requirement of temperature rise. Following should also be given due consideration:

- (i) Belting of radiators to avoid vibration
- (ii) The gasket should be square in shape with holes for fixing radiators. Round shape gasket may be avoided.
- (iii) Radiator valve must indicate open and close direction clearly.
- (iv) Radiators must be supplied in separate packing with serial number of transformer clearly indicated on packing with paint
- (v) Air release valve provided on radiator should not be of PVC material. It must be of cast iron duly cut in with thread for easy release of air.

14.4 **Galvanising:**

- (a) Galvanizing where specified should be applied by the hot dipped process or by electro-galvanizing process, for all the parts other than steel, which shall consist of a thickness of 610 Gms. zinc per square meter of surface. The zinc coating shall be smooth, clean and of uniform thickness and free from defects or sharp edge. The preparation of galvanizing and the galvanizing itself shall not adversely affect the mechanical properties of the coated material. The quality will be established by tests as per IS: 2633 or any equivalent International Standards. Alternative to galvanizing, aluminizing shall also be considered
- (b) All drilling, punching, cutting and bending and welding of parts shall be completed and all burrs shall be removed before the galvanizing process is applied.
- (c) Surface, which is in contact with oil, shall not be galvanized or Cadmium plated.

15. **FINISH:**

- (a) Before painting or filling with oil, all ungalvanised parts shall be completely clean and free from rust, scale and grease and all external surface cavities on castings shall be filled by metal deposition.

- (b) The interior of all transformer tanks and other oil filled chambers and internal structural steel works shall be cleaned and all scale and rust by shot blasting or other approved methods. This should be read alongwith clause 14 regarding requirement of painting of transformer tank.
- (c) Except for nuts, bolts and washers, which may have to be removed for maintenance purposes, all external surfaces shall receive a minimum of three coats of paint.
- (d) The primary coat shall be applied immediately after cleaning. The second coat shall be of oil, heat and weather resisting nature and preferable of a shade or color easily distinguishable from the primary and final coats shall be applied after the primary coat has been touched up where necessary. The final coat shall be of a glossy oil, heat and weather resisting non-fading, **BATTLE SHIP GREY** paint of shade No.631 of IS: 5. Primer paint shall be red oxide zinc chrome as per IS: 104, intermediate and final coats of grey paint shall be as per IS: 2032 or any equivalent International Standards.
- (e) Nuts, bolts and washers, which may have to be removed for maintenance purposes, shall receive minimum of one coat of paint after erection.
- (f) The spacing of the bolt centers 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 transportation or normal service or full load and guaranteed temperature rise conditions.

16. CORE:

The core shall be constructed from high grade, non-ageing, low loss cold rolled super grain oriented silicon steel lamination of HI-B grade steel or better. All stipulations under clause-8 be considered while selecting material of core.

(I) Magnetic circuit

- (a) The design of the magnetic circuit shall be such as to avoid static discharges, development of short circuit paths within itself or of the earth clamping structure and the production of flux components at right angles to the plane of the laminations, which may cause local heating.
- (b) Every care shall be exercised in selection, treatment and handling of core steel to ensure that so far as is practicable from distortion, burrs or sharp edge.
- (c) Although the oxide/silicate coating given on the core steel is generally adequate, laminations can be insulated by the manufacturers if considered necessary.
- (d) All ducts shall be provided wherever necessary to ensure adequate cooling and efficient heat transfer. The winding structure and major insulation shall not obstruct the free flow of oil through such ducts nor permit local hot spots. Where the magnetic circuit is divided into pockets by cooling ducts parallel to the planes of the lamination or by insulating material above 0.25 mm thick tinned copper strip bridging pieces shall be inserted to maintain electrical continuity conductivity between pockets.
- (e) The framework and clamping arrangement shall be earthed in accordance with Clause-19 (II) of this Technical Specification.

(II) Construction of Cores

- (a) All parts of the cores shall be of robust design capable of withstanding any shocks to which they may be subjected to during lifting, transport, installation and service.
- (b) All steel sections used for supporting the core shall be thoroughly sand blasted and shot blasted after cutting, drilling and welding.
- (c) Adequate provision shall be made to prevent movement of the core and winding relative to the tank during transport and installation or while in service.
- (d) The supporting framework of the cores shall be so designed as to avoid the pressure of pockets, which would prevent complete emptying of the tank through the drain valve or cause trappings of air during oil filling.

17. TERMINAL ARRANGEMENT:

17.1 The transformers shall be fitted with shaded porcelain bushings of outdoor type suitable for solder less connectors on HV as well as LV side. The HV/LV bushing shall not be provided with arcing horns. Aluminum bushing stems and aluminum metal parts will not be accepted.

17.2 The bushings shall be filled with transformer oil, EHV grade, which shall be of non-oil communicating type with small aperture of 2 mm diameter. The HV/LV bushings shall have the characteristics as per IS: 2099 (latest issue) or any equivalent International Standards. LV neutral bushing requirement is identical to LV line bushing in all respect.

The electrical characteristics of bushing insulators shall be in accordance with IS: 2099 (latest issue) or any equivalent International Standards as amended from time to time. All type and routine tests shall be carried out in accordance with IS:2099-1986 or any equivalent International Standards. The test voltages for various tests as stipulated in IS:2099-1986 are reproduced below:

Nominal System Voltage	Rated Voltage of the Bushing	Visible discharge test	One minute wet & dry withstand (Impulse Voltage)	Lightning impulse withstand test
KV	KV	KV	KV	KV
11	12	9	28	75
33	36	27	70	170

17.3 Dimensions of the LV 12 KV bushings including the neutral (11 KV side) shall conform to IS:3347 (Part-III) or any equivalent International Standards and those of the 36 KV bushing (33KV side) shall conform to IS:3347 (Part-V) or any equivalent International Standards. Requirement of creepage distance of minimum

23 mm. Per KV of rated voltage of bushing as per provision contained in Para 7 of IS:2099-1993 or any equivalent International Standards.

17.4 Terminal connector shall be provided both for HV and LV terminal suitable for holding Raccoon Conductor up to capacity of 5 MVA and Dog/Panther conductor for 8 MVA transformers. It should be flat in shape. Its current capacity should be 600 Amps.

17.5 Bushing studs of 33 & 11KV should be of copper and conforming to IS: 3347 or any equivalent International Standards.

18. VIBRATIONS AND NOISE:

Every care shall be taken to ensure that the design and manufacture of all transformers and accessories shall be such as to reduce noise and vibration to the level obtained in good modern practice.

The manufacturers will ensure that the noise level shall not be more than 3 Db above the NEMA standard publication TR-1.

19. INTERNAL EARTHING ARRANGEMENT:

(I) General:

All metal parts of the transformer with the exception of the individual core laminations, core bolts and associated individual clamping plates shall be maintained at some fixed potential.

(II) Earthing of core clamping structure :

The top main core clamping structure shall be connected to the tank body by a copper strip. The bottom clamping structure shall be earthed by one or more of the following methods:

- (a) By connection through vertical tie rods to the top structures.
- (b) By direct metal-to-metal contact with the tank base maintained by the weight of the core and the windings.
- (c) By a connection to the top structures on the same side of the core as the main earth connection to the tank.

(III) Earthing of magnetic circuit

- (a) The magnetic circuit shall be earthed to the clamping structure at one point only through a disconnectable link placed in an accessible position beneath an inspection opening in the tank core. The connection to the link shall be on the same side of that core and the main earth connection.
- (b) Magnetic circuits having an insulated sectional construction shall be provided with separate link for each individual section. When oil ducts or

insulating barriers parallel to the plane of the laminations divide one magnetic circuit into two or more electrically separate parts, the ducts on barriers shall be bridged in accordance with Clause-16 (ii) and the magnetic circuit shall not be regarded as being of sectional construction.

(IV) Size of earthing connections:

All earthing connections with the exception of those from the individual cell clamping rings shall have a cross sectional area of not less than 0.8 sq.mm. Connections inserted between laminations of different section of core as per above (III) b shall have a cross sectional area of not less than 0.2 sq.mm.

(V) Leads from winding to bushing and intercake connection:

The leads from winding to bushing and intercake connection should be rigid enough to withstand normal vibration and transportation shocks and short circuit stresses. They should be spaced in such a way that necessary clearances are maintained not only in air but also with oil medium at the lowest permissive electrical strength as per relevant ISS over the period of normal service.

20. ELECTRICAL CLEARANCE:

The clearance in air between live conductive parts and live conductive part and earthed structure shall be as follows: -

Voltage	Medium	Clearance phase to phase	Clearance phase to earth
11000	Air	280 mm	205 mm
33000	Air	350 mm	320 mm

21. PARALLEL OPERATION:

The transformers of the same service voltage shall be suitable for parallel operation, the load being shared in proportion to the capacities and percentage impedance volts, which will be within that specified in the ISS or any equivalent International Standards

22. OVER LOAD CAPACITY:

- (a) Each transformer shall be capable of carrying sustained over loads as stated in ISS: 6600 or any equivalent International Standards
- (b) **Type of load:** - The transformer will supply a mixed power and lighting load with Varying power factor from 0.6 lag to 0.8 lead due to capacitors.

23 PERFORMANCE WARRANTY:

The manufacturer shall among other things warranty the following: -

- (i) Quality and strength of material used, both electrical and mechanical.

- (ii) If during the course of 24 months subsequent to the date of receipt of consignment (wherever applicable) any of the goods found to be defective in materials or workmanship or develops defects during service, they will have to be replaced by the supplier, free of all charges. All necessary arrangements on these accounts will be made by the supplier.
- (iii) Performance figures are to be supplied by tenderer in the schedule of guaranteed particulars. In schedule of GUARANTEED TECHNICAL PARTICULARS, all details as required in IS:2026 or any equivalent International Standards shall be given.

24. TOLERANCE:

The tolerance of guaranteed performance figures shall be as specified in the Clause 11.1 as per latest version of IS: 2026 or any equivalent International Standards, except for the no load and load losses which should be in accordance with clause 9 & 9.1 of **annexure – VI of technical specification**

25. WHEELS AND AXLES:

The transformers of 5000 KVA rating shall be provided with 4 Nos. flanged wheels suitable for use on a 1435 mm gauge Rail track. These wheels shall be suitable for being turned through an angle of 90° and locked in that position when the tank is jacked up. Other transformers shall be provided with 4 Nos. Bi-directional flat roller suitable for use on a 1000 mm. Gauge Rail track.

26. FITTINGS & ACCESSORIES:

Unless otherwise specified in the order, the following standard fittings as detailed in Schedule X attached shall be provided. The fittings shall be in accordance with the details to the extent these are specified in IS: 2026 or any equivalent International Standards.

- (i) Inspection cover is needed to inspect tapping connections of bushings, tapping connections of tap changer and to inspect core-earthing connection.
- (ii) Rating plate.
- (iii) Diagram plate with tap position and relative HV/LV voltage.
- (iv) Two earthing terminals.
- (v) Lifting lugs.
- (vi) 4 jacking pads
- (vii) Conservator with top filled cap and bottom drain valve.
- (viii) Dehydrating breather of required sizes in Aluminum Die. Casting with minimum three Kg. silica gel.
- (ix) Connecting pipe with valve and Buchholz relay.
- (x) Radiator with top air release plug and connected valves and bottom for connection to main tank. Air release valve should not be of PVC material. It should be of cast iron duly cut in with thread for easy release of air.
- (xi) HV - 3 bushings
- (xii) LV - 4 bushings

- (xiii) Off circuit tap switch with lock and 2 keys.
- (xiv) Thermometer (dial type) with one contact for alarm pocket for sensor of thermometer (dial type) with one contact for alarm complete with provision for its mounting is needed.
- (xv) Magnetic oil level gauge indicating three position of oil marked as follows:
 - Minimum - (-5⁰C)
 - Normal - (30⁰C)
 - Maximum - (100⁰C)
- (xvi) Oil filling hole and cap.
- (xvii) Air release device on tank top.
- (xviii) Pressure relief device through explosion vent diaphragm with fresh equalizer pipe air release plug. Please see foot note indicated in Schedule X "Schedule of Fittings".
- (xix) Gas and oil actuated relay.
- (xx) 2 filter valves (top valve, lower valve to be used also as drain valve). Locking arrangement should be provided on each valve to avoid theft of transformer oil by welding 'U' shape flat over each valve.

27. TESTS AND INSPECTION:

27.1 Type test:

The Purchaser intends to procure transformers whose design is successfully type tested for short circuit, lightning impulse test, loss measurement test and heat run test from an independent agency of national/international repute like CPRI, Bhopal/Bangalore, National Test House, Ghaziabad, ERDA, Baroda or to any recognized and reputed International Laboratory and or Institution.

The tenderers are required to carry out type test. The expenses to be incurred towards the following tests shall be borne by them. This may be kept in mind while quoting the price.

Type test includes following tests: -

- (i) Short circuit withstand test as per clause 16.11 Part-I IS:2026 or any equivalent International Standards. The requirement with regard to ability to withstand short circuit shall be governed by clause-8 and demonstration of ability to withstand short circuit shall be governed by clause-9 of IS:2026(Part-I)1977 or any equivalent International Standards. Accordingly, the symmetrical short circuit current to be used for the design and tests shall be governed by the Table-4 (IS:2026-Part-I 1977) or any equivalent International Standards and shall be 1000 MVA for the subject power transformers (highest system voltage 36 KV).
- (ii) Lightning impulse withstand test as per Clause-13 Part-III IS:2026 or any equivalent International Standards.
- (iii) Temperature rise test as per Clause-4 Part-II IS:2026 or any equivalent International Standards. One transformer of each rating shall be type tested at some independent laboratory of National/International repute like CPRI, ERDA etc. for temperature rise as per relevant ISS. However, the rise shall

not be more than 50⁰C for winding and 45⁰C for oil above the ambient temperature.

- (iv) Loss Measurement Test – With value of No Load and Load Losses obtained at 75⁰C.

27.2 **Stage inspection:** The purchaser intends to ensure the quality of raw material being used and workmanship during course of manufacturing of power transformers. At time of core coil assembly, two representatives of purchaser will be deputed to carry out stage inspection. Only after clearance of stage inspection manufacturer will proceed further (tanking of core coil etc.) and will be required to offer transformer for pre-delivery final inspection.

27.3 **Routine Test:** - The following tests in addition to those listed in IS:2026 or any equivalent International Standards shall be carried out for routine tests. These tests are required to be carried out by the supplier at the supplier's cost on each and every unit manufactured by them and report shall be forwarded to Chief Project Director (D) office at the time of offering transformer for pre-delivery final inspection.

- (i) **Oil leakage test** - All the tanks and oil filled compartments shall be tested for oil tightness by being completely filled with air/oil of a viscosity not greater than that of insulating oil conforming to IS: 335 or any equivalent International Standards at an ambient temperature and subjected to a pressure equal to the normal pressure plus 35 KN/m² (5lb/sq.in) measured at the base of the tank. This pressure shall be maintained for a period not less than 10 minutes during which time no leakage shall occur
- (ii) Di-electric test on transformer oil.
- (iii) Checking for pre-shrinkages - The transformer will be dried out for 16 hours at temperature between 80 to 100⁰C. The active parts shall be tightened and height of assembled unit shall be measured. The difference between two measurements shall not be less than two percent as compared to height measured at normal temperature.
- (iv) Measurement of magnetizing current at low voltage i.e. 440V.

27.4 **Acceptance Test:** - The Purchaser/Representative at the firm's works shall witness the following tests:

1. All the routine tests as mentioned in 27.3 on each and every offered transformer.
2. Further, the Purchaser's Inspector reserves the right to carry out any other test for acceptance of offered transformers as per relevant specifications.

27.5 **Inspection :-** All tests and inspection shall be carried out at the place of manufacture unless otherwise specifically agreed upon by the manufacturer and Purchaser at the time of purchase. The manufacturer shall offer the Inspector representing the Purchaser all reasonable facilities without charges to satisfy him that the material is being supplied in accordance with this specification. This will include Stage Inspection during manufacturing stage as well as active Part Inspection during acceptance tests.

The Purchaser has all the rights to conduct the test including type tests at his own cost by an independent agency whenever there is dispute regarding the quality of supply or interpretation of test results. In the event of failure of transformers in such tests, the expenses incurred in testing and cost of transformer etc. shall be to the Supplier's account.

28. TEST REPORTS ON THE ANALYSIS OF RAW MATERIALS:

The tenderer shall indicate the source(s) of raw materials(s) called for in Schedule-VI and enclose test certificates and report on the analysis of electrolytic copper used for the winding and the steel used for core insulation material as also bought out items from sub-suppliers.

The quality of material used in prototype transformer, which has passed the type tests, shall be the same in all the ordered transformers. In case it is found that inferior quality of material is used, the transformer shall not be accepted.

-Sd/-
Chief Engineer (Corp. Office - Pur)
O/o CMD (WZ), MPPKVCL,
Indore

ANNEXURE – VII
SCHEDULE OF FITTINGS

1. Rating and terminal marking plate
 - i) Purchase order number and date to be indicated on rating plate.
 - ii) Serial number of transformer to be indicated in rating plate.
 - iii) Mention copper winding to be made on the rating plate
2. H.V. Bushings oil filled bushings – (Non oil communicating type with 2 mm aperture in the base diaphragm and top air release device where applicable)
3. L.V. Bushings, stud in porcelain bushing
11KV bushings shall be provided with arcing horns.
4. Earthing terminals 2 Nos.
5. Tank Lifting lugs 2 Nos.
6. Jacking pads 4 Nos.
7. Silica gel dehydrating breather (with three Kg. minimum gel content In aluminium die cast container).
8. Conservator with oil filling cap drain valve with plug & magnetic oil level gauge with alarm contacts. The oil level gauge shall have three positions of oil marked as follows:
 - a) Minimum (-5°C)
 - b) Normal (30°C)
 - c) Maximum (100°C)
9. Pressure relief device through Explosion vent diaphragm.
10. Gas and oil actuated relay with 2 contacts.

11. Thermometer (dial type) with one contact for alarm. Pocket for sensor of thermometer (dial type) with one contact for alarm complete with provision for its mounting.
12. Filter valves top and bottom (lower valve to be used as drain valve which should be able to drain oil completely).
13. Air release device
14. Bi-metallic connecting clamps for
 - (i) HV Studs - 3 Nos.
 - (ii) LV Studs - 4 Nos.
15. Axles and wheels: The transformers of 5000 KVA & 8000 KVA rating shall be provided with 4 Nos. flanged wheels suitable for use on a 1435 mm gauge Rail track .These wheels shall be suitable for being turned through an angle of 90° and locked in that position when the tank is jacked up.1600KVA and 3150 KVA transformers should be provided With bi-directional flat roller suitable for use on 1000 mm gauge Rail track.
16. Thermometer pocket
17. Detachable radiators with top and bottom shut off valves and air release plug on each radiator top.
18. a) Winding temperature indicator : These shall be
with one set of contacts with : housed in M.B.
transformers for alarm and trip. : box with flexible
: leads and require
: electrical
: connectors.
- b) Oil temperature indicator with one contact for alarm
19. Inspection cover to inspect tapping connections of bushings, tapping connections of tap changer and to inspect core earthing connection.
20. W.P. Terminal box alarm and trip contacts with requisite connector.

21. Off-Load circuit tap changing switch with indicator, handle and locking device with taps ranging from (+) 3% to (-) 9% in steps of 3% on HV side for HV variation. Direction for rotation marked limit stopper on extreme position.

NOTE FOR SL.NO.9

Pressure Relief Device

A safety valve of the chimney type with an equalizer Pipe interconnecting the top of the conservator and upper most Part of the safety valve shall be provided to prevent rise of oil in the safety valve pipe. A stop cork should also be provided in the interconnecting pipe. An air release cork shall also be fitted in a convenient position.

The safety valve pipe shall preferably take off from the side of the transformer near to the tank cover and not from the top of the tank cover. This is with a view to prevent the gases forming in the tank from rising into the safety valve pipe and thereby passing the gas and oil actuated relay (defeating its purpose) and for avoiding the necessity for providing a bottom diaphragm from the safety valve pipe which would be necessary in case it takes off from the tank cover. In case explosion vent is taken out from the top of transformer cover plate, a oil level gauge at the lower portion of explosion vent is to be provided to ensure that diaphragm fixed at lower portion of explosion vent is intact.

DATE

SIGNATURE WITH SEAL OF TENDERER

PLACE

NAME

STATUS

ANNEXURE-VIII

PRICE VARIATION CLAUSE FOR COPPER WOUND DISTRIBUTION TRANSFORMERS (OF RATING UP TO 10 MVA & VOLTAGE UP TO 33 KV)

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	=	$\frac{P_0}{100} \left[13 + 23 \frac{C}{C_0} + 27 \frac{ES}{ES_0} + 9 \frac{IS}{IS_0} + 5 \frac{IM}{IM_0} + 11 \frac{TO}{TO_0} + 12 \frac{W}{W_0} \right]$
Wherein,		
P	=	Price payable as adjusted in accordance with the above formula.
P ₀	=	Price quoted /confirmed.
C ₀	=	Average LME settlement price of copper wire bars (refer notes). This price is as applicable for the month, one month prior to the date of tendering.
ES ₀	=	C&F price of CRGO Electrical Steel Sheets (refer notes). This price is as applicable as on 1 st working day of the month, one month prior to the date of tendering.
IS ₀	=	Wholesale price index number for 'Iron & Steel (Base: 1993-94=100)' (refer notes). This index no. is as applicable for the week ending 1 st Saturday of the month, three months prior to the date of tendering.
IM ₀	=	Price of Insulating Materials (refer notes). This price is as applicable as on 1 st working day of the month, one month prior to the date of tendering.
TO ₀	=	Price of Transformer Oil (refer notes) This price is as applicable on the 1 st working day of the month, one month prior to the date of tendering
W ₀	=	All India average consumer price index number for Industrial workers, as published by Labour Bureau, Ministry of Labour, Govt. of India(Base 2001=100). This index number is as applicable on the 1 st working day of the month, three months prior to the date of tendering.

For example, if date of tendering falls in May 2008, applicable prices of Copper Wire Bars (C₀) and Transformer Oil (TO₀) CRGO Steel Sheets (ES₀) and Insulating material (IM₀) should be as on 1st April 2008 and Wholesale price index number for 'Iron & Steel' (IS₀) should be for the week ending first Saturday of February 2008 and all India average consumer price index No. (W₀) should be for the month of February 2008.

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.

C	=	Average LME settlement price of copper wire bars (refer notes). This price is as applicable for the month, one month prior to the date of delivery.
ES	=	C&F price of CRGO Electrical Steel Sheets (refer note). This price is as applicable on the 1 st 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 1 st Saturday of the month, three months prior to the date of delivery.
IM	=	Price of Insulating Materials (refer notes). This price is as applicable on the 1 st working day of the month, one month prior to the date of delivery.
TO	=	Price of Transformer Oil (refer notes) This price is as applicable on the 1 st working day of the month, one month 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 2001=100). This index number is as applicable on the 1 st 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 2008, applicable prices of Copper Wire Bars (C) and Transformer Oil (TO), CRGO Steel Sheets (ES) and Insulating material (IM) should be as on 1st November 2008 and Wholesale price index number for 'Iron & Steel' (IS) should be for the week ending first Saturday of September 2008 and all India average consumer price index No. (W) should be for the month of September 2008.

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. transformer manufacturers import major raw materials like Copper, 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.
- (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 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 suitable for Transformers of rating upto 10 MVA and voltage upto 33 KV (in Rs. / MT) is the average price of as quoted by local lamination suppliers, excluding value addition and C&F price (landed cost) 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 1st working day of the month, as quoted by primary producers.
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 average price of Insulating material (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 1st 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.
5. 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.

- (d) 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: -

$$P = \frac{P_0}{89} \left(13 + 23 \frac{C}{C_0} + 27 \frac{ES}{ES_0} + 9 \frac{IS}{IS_0} + 5 \frac{IM}{IM_0} + 12 \frac{W}{W_0} \right)$$

Where, description of P, P₀, AL, ES, IS, IM and W etc. remains same as mentioned earlier.

Sd/-
Chief Engineer (Corp. Office - Pur)
O/o CMD (WZ), MPPKVCL,
Indore

PRICE SCHEDULE-I**PRICES ARE TO BE QUOTED STRICTLY AS PER THIS FORMAT**

S.No.	Particulars	Qty. Required (in Nos.)	Qty. Offered (in Nos.)	Ex-works Price per X-mer (in Rs.)	Freight & insurance Charges For delivery any- Where in M.P. (in Rs.)	ED on Ex-works Price (indicating Amount & % both) (in Rs.)	CST/VAT on ex-works Price + ED (indicating amount & % both) (in Rs.)	Any Other Levy/Tax (indicating amount & % both) (in Rs.)	Total F.O.R. Destination Price per X-mer inclusive of all duties & taxes for delivery any where in M.P. (In Rs.)
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1	5 MVA 33/11 KV Power X-mer.	58							
2	8 MVA 33/11 KV Power X-mer.	16							

NOTE:-

- (1) Quantities mentioned above are purely tentative and are subject to change at the discretion of the Company to any extent.
- (2) Prices are to be filled in strictly in this format.
- (3) No column shall be left blank. Please note that the words “exclusive of charges/taxes/duties”, inclusive of charges/taxes, duties, Dash, N.A. Do, etc. will not be taken cognizance of.
- (4) The amount should be indicated in figures & words both.
- (5) The prices are variable as per IEEMA formula. Please indicate monthly capacity of supply against this tender.
- (6) **Entry tax if applicable shall be borne by the purchaser.**

SIGNATURE OF TENDERER
OF THE FIRM WITH SEAL
NAME
DESIGNATION

SCHEDULE II

(DETAILS TYPE TESTS CARRIED OUT)

TYPE TEST SUCCESSFULLY CONDUCTED DURING LAST FIVE YEARS IN RESPECT OF 5 & 8 MVA RATINGS 33/11 KV POWER TRANSFORMERS

Ratings in MVA	Tap range & tap size of the transformers tested	Place and institution where tested with date			
		Short circuit test	Lightning impulse test as per clause 13 of part III of IS	Loss measurement test with value of no load & load losses obtained (at 75°C) in KW	Heat run test Max. Oil temp. in °C Max winding temp. in °C
1	2	3	4	5	6
5					
8					

Note:- You are advised to furnish detailed report of above tests along with the tender including details of active part verification after test. The reports shall be issued by Government an independent Agency of National repute like CPRI Bangalore/ Bhopal, National test House, Ghaziabad, ERDA Baroda. In the absence of test report, it will be presumed that no test has been carried out and tender will be evaluated accordingly. Above table must be filled indicating Report No., Date and place where type test have been carried out.

DATE

SIGNATURE WITH SEAL OF TENDERER

PLACE

NAME

STATUS

SCHEDULE -III**SCHEDULE OF GUARANTEED TECHNICAL PARTICULARS**

S.No.	Particulars	Rating	
		5 MVA	8 MVA
1.	Continuous Max. Rating (MVA)		
2.	Normal Ratio of transformation		
3.	Method of Connection (Vector Group)		
4.	Max.Hot Spot Temp. (Ambient air Temp shall be taken as 50 ⁰ C).		
5.	Max. Oil Temp. (Ambient air Temp. Shall be taken as 50 ⁰ C).		
6.	Max.winding Temp. (Ambient air temp. Shall be taken as 50 ⁰ C). (1.55 Tesla)		
7.	Maximum flux density in iron at normal voltage & frequency. (a) Cores - Kilo lines per Sq.Cm. (b) Yokes - -do- (c) Grade of core lamination		
8.	Type of transformer		
9.	Core: - (a) Core Material (i) Grade (ii) Thickness of lamination used (b) No. of steps (c) Dimensions of each core steps. (i) Breadth of step (ii) Thickness of step (d) Core diameter (e) Core length (leg center) (f) Window height		

S.No.	Particulars	Rating	
		5 MVA	8 MVA
	(g) Details of insulation between Bottom of core & Base Channel		
	(h) Core height (inclusive of Base Channel and insulation in between		
	(i) Gross core area		
	(j) Effective core area		
	(k) Nos. & Dimensions of steel channel used for clamping of core		
	(l) Size & No. of		
	(i) Core bolts		
	(ii) Tie rods		
	(m) Painting of core channel		
	(n) Whether yoke is cut or holes are made for LV connections. If yes, whether enforcement is done. Also indicate details of reinforcement.		
	(o) Size of support channel for Core base (cut channels are not acceptable).		
10.	Magnetizing current (% of rated current and at -9% tap).		
11.	Maximum current density in windings (2.5 A/mm ²)		
	(a) Higher voltage (Amps per sq.mm.)		
	(b) Lower voltage (Amps per sq.mm.)		
12.	Windings		
	(a) Material and type -		
	(i) H.V.		
	(ii) L.V.		

S.No.	Particulars	Rating	
		5 MVA	8 MVA
(b)	Size and cross section of winding wires without insulation for		
	(i) H.V.		
	(ii) L.V.		
(c)	Size and cross section of winding wires with insulation		
	(i) H.V.		
	(ii) L.V.		
(d)	Type of insulation of		
	(i) H.V. Winding		
	(ii) L.V. winding		
(e)	Internal & external diameter of		
	(i) H.V. Coil		
	(ii) L.V. Coil		
(f)	No. of coils/phase		
	(i) H.V.		
	(ii) L.V.		
(g)	Total No. of turns per coil		
	(i) H.V. Coil		
	(ii) L.V. Coil		
(h)	Method of connection of winding ends to bushing terminals		
	(i) LV winding to bushing		
	(ii) HV winding to bushing		
	(iii) Formation of Star point		
	(iv) Star point to bushing		
	(v) Formation of delta		
(i)	Resistance/phase at 75°C		
	(i) H.V.		
	(ii) L.V.		
(j)	Height of H.V. Coil		

S.No.	Particulars	Rating	
		5 MVA	8 MVA
(k)	Height of L.V. Coil		
(l)	Turn Ratio H.V / L.V		
	For tap	I (+3)	
		II Normal	
		III (-3)	
		IV (-6)	
		V (-9)	
13.	Fixed losses at normal ratio at 75°C (KW) (Max.)		
14.	Load losses at normal ratio at 75°C (KW) (Max.)		
15.	Total losses at normal ratio at 75°C (KW) (Max.)		
16.	Whether above losses are maximum without any tolerance		
17.	Impedance voltage at normal ratio between HV & LV windings at 75°C.		
18.	Impulse test level of HV & LV windings		
19.	Efficiency at normal ratio (at 75°C).		
	(i) Unit power factor and		
	(ii) 0.8 Power Factor at 50%, 75% and full load		
20.	Regulation as percentage of normal voltage (at 75°C) at Unity P.F. and at 0.8 P.F.		
21.	Maximum out of balance force in winding on short circuit with external reactance as zero.		
22.	Insulation material:		
	Insulation material used & its thickness:		

S.No.	Particulars	Rating	
		5 MVA	8 MVA
a)	Between core & LV		
b)	Spacers		
c)	Inter layer		
d)	Between HV & LV winding		
e)	Between phase		
f)	End insulation		
23.	Clearance in mm.:		
a)	L.V. to core (Radial)		
b)	Between HV & LV (Radial)		
c)	Phase to phase between HV conductor (with min. of 2x1 mm Press Board to cover the rods).		
d)	Between winding & body		
e)	End insulation		
f)	Thickness of locking spacers between HV coils.		
g)	Axial wedges between H.V and L.V coils		
h)	Clearance between top cover and top yoke.		
i)	No. of radial spacers/phase		
	(i) H.V.		
	(ii) L.V.		
j)	Size of duct between L.V & H.V		
24.	Method of clamping of core & also whether clamping arrangements by steel sections or by wooden block.		
25.	Type of quality of steel/wood used in the transformer for insulation purpose.		
26.	Tank		
	(a) Shape		

S.No.	Particulars	Rating	
		5 MVA	8 MVA

- (b) Thickness of tank sheets in mm.:
 - (i) Top & Bottom
 - (ii) Side walls
 - (iii) Collar
- (c) External dimensions of tank in mm.
 - (i) Length (l)
 - (ii) Breadth (b)
 - (iii) Height at middle

27. Bushing:

- (a) Characteristics:
 - (i) Dry withstand voltage
 - H.V.
 - L.V.
 - (ii) Wet withstand voltage
 - H.V.
 - L.V.
 - (iii) Impulse flash over voltage
 - H.V.
 - L.V.
- (b) Material of bushing rods
 - H.V.
 - L.V.
- (c) Size of bushing rods
 - H.V.
 - L.V.
- (d) Bushing clearance shortest on both HV & LV side
 - (i) Phase to phase
 - (ii) Phase to earth

S.No.	Particulars	Rating	
		5 MVA	8 MVA
28.	Conservator		
	(a) Dimensions		
	(b) Volume of oil		
	(c) Thickness of sheet in mm.		
29.	Radiators:		
	(a) Nos. of Radiator		
	(b) Nos. of fins per radiator		
	(c) Size of fin		
	(d) Thickness in mm.		
30.	Oil to be filled in:		
	(a) Grade characteristics as per Specification		
	(b) Transformer tank		
	(i) Volume (in Ltrs.)		
	(ii) Weight (in Kgs.)		
	(c) Conservator		
	(i) Volume (in Ltrs.)		
	(ii) Weight (in Kgs.)		
	(d) Total oil filled in transformer		
	(i) Volume (in Ltrs.)		
	(ii) Weight (in Kgs.)		
31.	Overall dimension of transformer (In mm.)		
	(a) Length		
	(b) Breadth		
	(c) Height		
32.	Dimension of transformer arranged for transport (In mm.)		
	(a) Length		
	(b) Breadth		
	(c) Height		

S.No.	Particulars	Rating	
		5 MVA	8 MVA
33.	Engraving of S.No. & Name of firm :		
	(a) On bottom of core clamping channel		
	(b) Side wall & top cover of tank		
	(c) Date of dispatch on the tank		
34.	Weight of bare windings in Kg.		
	(a) H.V.		
	(b) L.V.		
35.	Weight of insulated winding in Kg.		
	(a) H.V.		
	(b) L.V.		
36.	Weight of core & windings assembly		
37.	Weight of core only		
38.	Weight of tank & fittings including radiators but without oil.		
39.	Weight of complete transformer including all fitting & oil.		
40.	Weight of detachable accessories/ fittings.		
41.	Weight of complete transformers arranged for transportation (MT).		
42.	Colour of transformer		
43.	Reference to type test reports for tendered rating of Transformer with tapping with place and date where tested		
	(a) Short circuit test report No. & Date		
	(b) Lightning impulse test report no. & Date and place		
	(c) Loss measurement with place, date etc.		
	(d) Temperature rise test with place, date etc.		

S.No.	Particulars	Rating	
		5 MVA	8 MVA
44.	Whether tap range of Off Load tap changer is from (+) 3% to (-) 9% in steps of 3% on HV side of transformer.		
45.	Size of contact of tap changers		
46.	Material of contact of tap changer		

DATE

SIGNATURE WITH SEAL OF TENDERER

PLACE

NAME

STATUS

SCHEDULE – VI**SOURCE OF MATERIALS/ PLACES OF MANUFACTURE TESTING & INSPECTION**

S. No.	Item	Reference of specification	Source of material	Place of manufacture	Place of testing & inspection
1.	Transformers Core				
2.	Copper wire/Strip				
3.	Core plates.				
4.	Steel structure & Channel etc				
5.	Transformer Tanks				
6.	Radiators				
7.	Insulating/Press Board Cylinders IS:15/6				
8.	Insulating paper				
9.	Porcelain Busing IS:2099/3347.				
10.	Transformer Oil of EHV Gr.II.IS:335				
11.	Insulated winding wire				
12.	D.B.P.C. Powder				
13.	Bimetalic Terminal Connectors suitable for copper stud.				
14.	Relays IS:3637/3638				
15.	Silicagel breather				
16.	Magnetic type oil indicator				
17.	Thermometer dial type				
18.	Paint IS:109/104.IS:5				

PLACE:

SIGNATURE OF THE TENDERER

DATE :

NAME

STATUS IN THE COMPANY

PART-II

ANNEXURE-I

GENERAL INSTRUCTIONS TO BIDDERS

1. GENERAL

Chief Engineer (Corp. Office - Pur) on behalf of "The Madhya Pradesh Paschim Kshetra Vidyut Vitaran Co. Ltd." herein-after referred to as "Discom-WZ", will receive sealed tenders/bids for supply of materials/equipments in accordance with the attached specifications for supply to Area Stores at **Indore, Barwaha, Ujjain and Ratlam** only in Madhya Pradesh.

2. BASIC QUALIFICATION OF BIDDERS

This bidding is open for Manufacturers only who provide satisfactory evidence:-

- (a) That they are qualified Manufacturer/ who regularly manufacture the materials/equipments of the type specified and have adequate technical knowledge and practical experience.
- (b) That they do not anticipate change in the ownership during the proposed period of contract (if such a change is anticipated, the scope and effect thereof shall be defined).
- (c) That, they have adequate financial stability and status to meet the financial obligations pursuant to the scope of the assignments
- (d) That, they have adequate plant and manufacturing capacity available to perform the assignment properly and expeditiously within the time period specified.
- (e) "No two or more concerns in which an individual is interested as a proprietor and / or partner shall tender for the execution of the same work. If they do so, all such tender shall be liable to be rejected".

3 EARNEST MONEY

- (i) The Tenderer shall deposit the Earnest Money of Rs. 50,000/-
- (ii) The Earnest Money can be deposited in one of the following forms only:
 - a) **In cash:-** to be deposited with the office of **Sr. Accounts Officer MPPKVCL Indore, MPPKVCL, Indore.**
 - b) By Bank Draft in favour of **Regional Accounts Officer MPPKVCL Indore, MPPKVCL, payable at Indore.**
No offer will be accepted without valid Earnest Money Deposit, unless exempted by the Discom-WZ.
- (iii) The following are exempted from payment of Earnest Money Deposit :-
 - a) S.S.I. Units of Madhya Pradesh Permanently registered with DIC/Ancillary Units of MPSEB. **The registration should be permanent and should be specifically for the items quoted in the tender and valid on the date of opening of tender.**
 - b) **Small Scale Units registered with NSIC:-** The Small Scale Unit permanently registered with NSIC, whose registration certificate is valid for the item quoted on due date of opening of commercial and technical bid shall be entitled for exemption from EMD. (The renewal/ amendment of certificate should not be more than 3 years old from the due date of opening of tender) otherwise EMD has to be furnished by the bidder.

- c) The Medium/Large Scale Manufacturing Units, located in Madhya Pradesh (other than SSI/ Ancillary Units to MPSEB and Govt. undertakings) are permitted to furnish the EMD @ 50% (Half) of the rates prescribed above. Here also permanent registration is a must in respect of specified item against this tender.
- d) Fully owned State/Central Govt. manufacturing Units, if 100% shares are held by the respective Govt. for which documentary evidence must be furnished with the offer.
- e) The photocopy of the NSIC/SSI Registration Certificate for the tendered items duly notarized/ attested by G.M./ Manager, DIC of the Area/ any officer of Discom-WZ not below the rank of E.E. shall be furnished with the offer. In case of unattested/un-notarized copy, the original certificate should be produced at the time of tender opening for verification.
- (iv) All the SSI/NSIC units should quote/offer the material only to the extent they are registered for respective items with the SSI/NSIC organization.
- (v) In case, the bidder withdraws his offer during the validity period, after placement of order, the EMD amount shall be forfeited.
- (vi) **RETURN OF EARNEST MONEY TO BIDDERS**
 - a. EMD shall be returned to the un-successful bidders, as soon as possible, after the tender is decided. No interest shall be paid on EMD amounts.
 - b. EMD of bidders on whom the orders have been placed, shall be returned on acceptance of security deposit. No, interest shall be paid on EMD amount.

4. TAXES AND DUTIES

- a) All taxes and duties should be included in the prices quoted. Any kind of taxes and duties shall not be paid extra. However, the break up of taxes & duties must be indicated separately in the Schedule-IV, Part-B Commercial Information.

M.P. Paschim Kshetra Vidyut Vitaran Company Ltd., Indore is a Registered Dealer and TIN No. 23380203311. Therefore necessary declaration form, wherever applicable, shall be issued after receipt of material at destination, by the M.P. Paschim Kshetra Vidyut Vitaran Company Ltd., Indore. Any other applicable declaration form for concessional rate of Sales tax/Commercial tax as may be in force shall be given only after the legal position is verified at our end.

- b) Excise duty and Sales Tax/Commercial Tax are payable for the contractual delivery period only at the prevailing rates wherever applicable. No upward variation shall be payable beyond the contractual delivery period, where the supplier is responsible for the delays. The reimbursement of the excise duty will be allowed on the basis of excisable invoice submitted by the supplier.
- c) Wherever applicable tenderers outside the State of M.P. should also quote the prevailing rate of Sales Tax/ Commercial Tax in the state of origin so that the concessional rate of CST payable against "C" form may be limited to the Sales Tax applicable for state of origin, from where the material move, in case, these are lower than the concessional rate of CST.

5. AMENDMENT IN SPECIFICATIONS

The Discom-WZ may revise or amend the specification and drawing, prior to the date notified for opening of Price Bid of tender. Such revision/ amendment, if any, will be

communicated to all those who have bought the tender documents as Amendment/ Addendum to the invitation of tender.

6. **BIDS RECEIVED BY MESSENGER**

When tenders are delivered by special messenger, the same should be dropped in the Tender Box, kept in the office of Chief Engineer (Corporate Office) O/o CMD (WZ) MPPKVV Co. Ltd., GPH Campus, Pologround Indore, on all working days during working hours indicated in tender notice. **Nobody is authorized to receive or grant receipt for tender delivered by hand.**

7. **BIDS IN OPEN FORM**

Open bids through Telegram/Fax will not be considered under any circumstances.

8. **DELAYED/ LATE BIDS**

The Discom-WZ shall not assume any responsibility for any postal delays either for the late receipt of documents by bidder or late receipt of bids by the Board/Company. No Extension in time shall be granted on such grounds.

9. **ALTERNATIVE BIDS**

Bid should be submitted as per intent of tender documents; any alternative offers are liable for rejection.

10. **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/beneficial to the Discoms shall be considered. Such offers can also be rejected.

12. **PRINTED TERMS AND CONDITIONS IN BIDS**

Supplier's printed terms and conditions will not be considered as forming part of the tender under any circumstances whatsoever.

13. **ALTERATIONS/CORRECTIONS IN BIDS**

Any alteration/correction in the tender document should be counter-signed. Further, no post tender alteration/correction shall be entertained.

14. **INCOMPLETE BIDS**

Tender which is incomplete or obscure is liable for rejection.

15. **ACCEPTANCE OF PART/WHOLE BIDS-RIGHTS THEREOF**

Discom-WZ reserves the right to accept/ reject wholly or partly any tender without assigning any reason whatsoever. The Discom-WZ in this regard shall not entertain any correspondence.

16. **AMBIGUITIES IN CONDITIONS OF BIDS**

In case of ambiguous or self-contradictory terms/conditions mentioned in the bid, interpretation as may be advantageous to the Discom shall be taken without any reference to the tender.

17. DISQUALIFICATION OF BIDS

A Bid which gets opened before the due date as a result of improper or no indication having 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.

18. LANGUAGE OF BIDS

All tenders should be made either in English or in Hindi only.

19. INCOME TAX/SALES TAX CLEARANCE CERTIFICATE

During the processing of tender if asked for, the bidders shall be required to furnish Income/Sales Tax clearance certificates from competent authority.

20. FILLING OF QUESTIONNAIRE/SCHEDULES

All the Questionnaire / Schedules along with specification are enclosed for technical/commercial terms & conditions. It is compulsory on the part of the bidder to furnish all details as sought in these. In case, these are not filled in and enclosed with the offer, the Bid will be rejected.

21. DEVIATIONS FROM TERMS & CONDITIONS

Offers with deviations in the terms of payment, liquidated damages, security deposit and performance guarantee are liable to be rejected out rightly.

22. PAST EXPERIENCE

Supplier having past experience in manufacture and supply of materials should furnish the list of supplies made during the last three years for the materials supplied by them, as per enclosed Schedule V Part "A" failing which the tender may not get any preference for his past experience.

23. SUBMISSION OF BIDS

(i) The tender shall be submitted in three (3) parts:-

Part-I shall contain "EARNEST MONEY DEPOSIT / DOCUMENT WHICH ENTITLE FOR EXEMPTION FROM EMD".

Part-II shall contain "COMMERCIAL BID AND THE TECHNICAL BID".

Part-III shall contain "PRICE BID", in the Price Schedule. The bidder shall ensure that the prices/rates are filled in accordance with the proforma for "Price and Quantity."
Schedule-I.

(ii) Tender being submitted must be signed by a person holding a Power of Attorney authorizing him to do so, certified copies of which shall be enclosed.

(iii) Tender submitted on behalf of companies registered with the Indian Companies Act, for the time being in force, shall be signed by persons duly authorized to submit the Tender on behalf of the Company and shall be accompanied by certified true copies of the resolutions, extracts of Articles of Association, special or general Power of Attorney etc. to show clearly the title, authority and designation of persons signing the Tender on behalf of the Company.

- (iv) All the three parts shall be submitted in three separate sealed envelopes and these envelopes shall be properly superscribed as Part-I "Earnest Money Deposit", Part-II "Commercial Bid and Technical Bid" and Part-III "Price Bid". Each envelope shall also be superscribed with name of item and T.S. No. for which the tender is submitted, the name of the said bidder and the date of opening, as advertised. The tender i.e. the three parts shall be submitted each in duplicate.
- (v) **The above three envelopes duly sealed are to be kept again in one envelope called main envelope and sealed.** This envelope should be properly superscribed stating that this envelope contains three separate envelopes for Part-I "EARNEST MONEY DEPOSIT", Part-II "COMMERCIAL AND TECHNICAL BID" and Part-III "PRICE BID", in addition to tender specification No., Name of Item & bidder. Details of Earnest Money Deposit and Due date of opening should be superscribed on this common envelope also. Beside this, it shall be certified on the main envelope itself that Discom-WZ's PAYMENT TERMS, PENALTY, SECURITY DEPOSIT and PERFORMANCE GUARANTEE & PRICE VARIATION (WHEREVER APPLICABLE) CLAUSES, as mentioned in tender specification, are acceptable to the bidder. This certification shall be in the following manner:-

Tender Specification No. CMD/WZ/06/Pur/

Due For Opening On-

For Procurement Of-

This Envelope Contains 3 Separate Envelopes For

Part I "Earnest Money Deposit"

Part II "Commercial And Technical Bid"

Part III "Price Bid"

TO,

**The Chief Engineer (Corp. Office - Pur)
O/O CMD (West Zone), M.P.P.K.V.V. Co. Ltd,
Industrial Area, GPH Compound,
Polo Ground, Indore (M.P.) 452 003**

**It Is Certified That We Unconditionally Agreed The Following Clauses
Of Tender Specification: -**

- | | |
|-----------------------------------|------------------|
| (i) PAYMENT TERMS | : AGREED. |
| (ii) SECURITY DEPOSIT | : AGREED. |
| (iii) PENALTY | : AGREED. |
| (iv) PERFORMANCE GUARANTEE | : AGREED. |

EMD has been deposited in the form of -

**Signature Of Bidder
Status And Company's Seal**

- (vi) Even after certification on the body of the main envelope, if any ambiguity is found upon opening of the main envelope or after opening of the Price Bid, the offer shall be liable for rejection.

24. DATE AND TIME OF OPENING OF BIDS - CHANGES

Tender shall be opened on the due date and time as notified in the presence of the bidders or their authorized representatives who may be present. If the due date of opening/ submission of tender documents are declared a holiday by the Central/ State Government or Local Administration, it will automatically get shifted to the next working day, for which no prior intimation shall be given. The tender opening shall be continued on subsequent days, in case the opening of all the tenders is not completed on the day of opening.

It may please be noted that the due date/ time of opening can be altered, extended, if felt necessary by the purchaser, without assigning any reason thereof. However, due intimation shall be communicated in such a case.

25. OPENING OF E.M.D. & COMMERCIAL AND TECHNICAL BID

The first envelope of Earnest Money Deposit shall be opened on the due date and time, as notified in the Notice Inviting Tenders. The requirement for EMD shall be verified and thereafter, the second part, i.e. the Commercial & Technical Bid, shall be opened on the same date in respect of eligible bidders.

26. OPENING OF PRICE BID

Opening of price bid along with first two parts of the offer on the same date:-

The offers which are in conformity with important commercial terms and conditions including Payment terms, Penalty, Security deposit and Performance guarantee clause & Technical specifications of Tender specification shall be eligible for opening of their Price Bid.

OR

Opening of Price Bid on subsequent date:-

- (a) After opening of first two parts (i.e. Part-I and Part-II), the deviations from the Discom-WZ terms & conditions, if any, proposed by the bidder in regard to Commercial and technical Bid, as per prescribed schedules, given along with the tender documents, shall be notified and clarifications, if required by Discom-WZ, shall be submitted by the bidders, either at the time of scrutiny of tender or within the time prescribed.
- (b) As a result of discussions and clarifications obtained in writing on Commercial & technical matter, the bidder shall be free to indicate the effect of such changes on their prices and submit a sealed "Supplementary Price Bid", within the specified time to take care of any deviations/alterations on account of changes in Commercial & Technical matters.

- (c) The bidder shall not be allowed to change their original price bids. In case deviations and clarification on Commercial and Technical matters are not submitted by the bidder within the time prescribed by the Discom-WZ then the Discom-WZ reserves the right to refuse to open the original price bids Part-III. Thus, the bidder should ensure that their tender is strictly in conformity with the specifications.
- (d) It is, therefore, necessary for the bidder, in his own interest to submit a "Supplementary Price Bid" in the sealed cover stating that in spite of clarifications, he does not want to revise his original Bid. This will avoid confusions/ misinterpretations. Otherwise, failing which, Discom-WZ's decision, shall stand as binding.
- (e) The date of opening of "Part-III i.e. PRICE BIDS" shall be notified to the bidders, whose bids are found to be commercially & technically acceptable.
- (f) The decision of the Discom-WZ in this respect shall be final and acceptable to the bidder.

27. 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 authorized representatives or other interested parties are advised strongly, in their own interest, to refrain from contacting by any means any of the Discom-WZ's personnel or Representative, on matters relating to tender under process.

28. VALIDITY OF BIDS

The offers shall be **valid for 180 days**. Validity of the offer shall be counted from the date of opening of bids. Those who do not agree for a validity of 180 days will do so at their own risk and their offers are liable to be rejected.

29. AUTHORISATION/LOCAL REPRESENTATIVE

Only authorized representative, possessing necessary authority letter from the bidder who have participated in the tender shall be allowed to attend the tender opening.

30. ACCEPTANCE OF TENDER

- i) The Discom-WZ may reject any or all tenders or to accept any tender considering advantageous to Discom-WZ whether it is the lowest offer or not.
- ii) The Discom-WZ may split the quantities against the tender on more than one bidder for the same item. The Discom-WZ shall assign no reasons for this and the same will be binding on the bidders.

31. CHANGE OF QUANTITY

The quantity indicated the Schedule-I is tentative and purchaser reserves the right to vary the quantities of any or all items as specified in the technical specification/schedules as may be necessary, based on Purchaser's judgment and vendor rating (wherever carried out). No correspondence shall be entered into, neither discussed regarding quantity variation, nor any reason will be assigned thereof.

32. **POOL RATES**

The bidders are advised to quote their own individual rates. It may please be noted that if more than one bidder quotes the same rate, suggestive of a cartel, then such offers may not be considered by the Discom-WZ. It may also please be noted that the competitive rate quoted by each bidder may be one of the main criteria for quantity to be ordered on each successful bidders.

Sd/-
Chief Engineer (Corp. Office - Pur)
O/o CMD (WZ), MPPKVVCL,
Indore

ANNEXURE-II

GENERAL TERMS AND CONDITIONS OF PURCHASE

1. PRICES AND STATUTORY LEVIES

(1.1) It is obligatory that VARIABLE and FOR destination, prices are quoted clearly and exactly as per price schedule enclosed with the tender specification giving break-up of the following elements. In absence of this, the offer shall be liable for rejection: -

- (a) Unit Ex-works/Ex-godown rate including packing and forwarding.
- (b) Excise duty applicable on Ex-works prices as on date of Bid.
- (c) Sales Tax: (i) C.S.T.
(ii) VAT
- (d) Freight-Insurance Charges
- (e) Any other levy /taxes. The details and rate to be specified.
- (f) Entry Tax: - Entry Tax if applicable shall be borne by the purchaser.
- (g) In case of exemption from excise duty and/ or Sales tax, documentary evidence shall be furnished with the offer.
- (h) The prices shall be quoted exactly as per the price schedule enclosed with the tender specification, including all elements clearly. In absence of this, the offer shall be liable for rejection^v

(1.2) VARIABLE PRICES & P.V CLAIMS

- (i) Wherever asked for, the prices shall be **VARIABLE** in accordance to P.V Formula attached with the tender document.
- (ii) In such cases, the payment of statutory levies i.e. sales tax/VAT, Excise duty against the contract shall be paid on the basis of rates prevailing during the contractual delivery period only against documentary evidences. Sales tax/VAT and Excise duty shall not be paid on freight elements in any case.
- (iii) In case supplies against contracts are effected late i.e. beyond contractual delivery period and rate of excise duty/sales tax/VAT 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 levy(ies) undergoes downward revision then the delayed supply beyond contractual deliver period will attract reduced rate of statutory levy(ies).
- (iv) In case of delay in supply, if the supplier is able to prove that the delay involved is due to force Majeure conditions as detailed in the force Majeure clause, supported with suitable documentary proofs and in case the delay is condoned with specific approval for payment of statutory levies during extended period, supplementary claims for sales tax/excise duty shall be accepted and payment shall be released accordingly.

- (v) Pending decision on the request of the supplier for condonation of the delay in delivery, the supplier will claim excise duty/sales tax as per the rates prevailing during the contractual delivery period. In case this is not done, all financial losses will be to supplier's accounts.
- (vi) While claiming the P.V., the suppliers shall furnish the relevant circulars/price indices. The claims towards Price Variation if any, shall be submitted directly to paying authorities along with the relevant indices and other required documents.
- (vii) For the purpose of calculation of PV the date of offer shall be the date on which the equipment is notified to be ready for inspection, if the material is passed in inspection.

2. TRANSIT RISK

- (a) Responsibility regarding covering of risks during transit of material shall entirely be on the supplier. The Discom-WZ shall, in any case, not bear the transit risks/ 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 awaiting for his settlement from carrier or Insurance Discom-WZ etc. If the supplier fails to do so the consignee(s) shall be free to get the repair work done from other sources and they shall be free to recover the cost of such material/ expenses of repairs either from the supplier's 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 any extra cost and without waiting for the settlement of the claim.
- (d) **Replacement of goods lost/ broken or damaged including loss due to fire:-**
Notwithstanding anything here-in 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 Discom-WZ 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 suppliers/ carrier with all necessary documents for settlements of the same with the carriers at supplier's end.

3. PACKING AND FORWARDING

- (a) The supplier shall be responsible for the Stores being sufficiently and properly packed at his expense for transport by rail, road or sea, so as to ensure them being free from loss/damage due to handling and transport to the destination.
- (b) Each package shall be prominently and distinctly marked on at least two faces, indicating the full address of the consignee, destination station, name of material, purchaser's order number, weight and volume of the package etc.

- (c) Each package shall contain in a water proof cover, detailed description indicating the order reference and date and list of the contents. Each item contained in the package or box shall be described sufficiently to enable easy identification. The quantity, weight etc. shall also be given.
- (d) The packing shall conform to the specification, rules and regulations prescribed by the underwriters, railways, Transport Agencies. In case of any loss/damage to the consignment due to non-standard packing, the same shall be made good free of all charges to Purchaser by the supplier. All provisions of this clause shall apply whether the disrupting cause is total or partial in its effects upon the ability of supplier to perform.

4. MODE OF DISPATCH

The bidder should clearly indicate mode of dispatch for the material. In case of dispatch through rail, the material is to be booked for respective destination railway station. In case of dispatch through road transport, the material should be dispatched through bank approved road transporter on door delivery basis only.

5. SUBMISSION OF DRAWING AND LITERATURE

All the relevant drawings shall be submitted immediately after placement of order for approval. One set of drawing, Descriptive Literature and instructions Manual for Erection, Commissioning and maintenance of the equipments ordered, shall be supplied to each consignee.

6. INSPECTION AND TEST CERTIFICATE

- i) Each lot of offered material shall be inspected by the Disco-EZ's inspecting officer before despatch. The supplier shall extend all reasonable and necessary testing help to the inspecting officer of the Discom-WZ to carry out testing of material at his works.
- ii) An intimation about the date, by which material shall be ready for inspection, indicating quantity, be given to. Order Placing Authority, by the supplier, so as to reach him sufficiently in advance, failing which, the suppliers shall be responsible for delay in delivery on account of inspection. On receipt of such intimation, the material shall be inspected normally within 15 days.
- iii) The supplier shall not despatch the material unless specific despatch instructions are issued by the Purchase Section of Discom-WZ or any other authorized officer of the Board/Company.
- iv) In case the inspector deputed for inspection does not find the offered lot ready, the Discom-WZ reserves the right to recover from the supplier, such charges as may have been incurred towards arranging such inspection. These charges have been mentioned in clause 8 below.

7. RIGHT TO CARRYOUT THE INSPECTION DURING MANUFACTURING

i) The Discom-WZ, at its option, will inspect the material on order during its process of manufacturing including the inspection of raw material and will request the supplier to carry out such tests as may be necessary to ensure proper quality check. Samples of components of the material shall be subjected to quality check by the inspecting officer during manufacturing. In the event of stage inspection, if any discrepancy is noticed, the supplier shall be given immediate notice to suspend further manufacturing until corrective measures are taken and the process cleared.

ii) **FACTORY INSPECTION :-**

The factory inspection of the bidders, who have not executed any order of MPSEB, may be carried out before placing detailed order or during pendency of the order, the factory inspection may be conducted by Discom-WZ's authorized officers as and when felt necessary for ensuring production of quality material.

iii) The supplier shall extend all reasonable and necessary assistance to the inspecting officer of the Discom-WZ to carry-out testing of equipment/ material at his works.

8. FAKE INSPECTION CALL

All such firms, who after giving inspection call, do not offer materials to Inspecting Officer for inspection due to one or the other reasons, shall be required to remit a sum of Rs. 5,000/- per officer.

9. DELIVERY

(i) Normally, supply shall be commenced within two months from the date of receipt of order and to be completed in next six months. Wherever the quantity is small, the delivery may be changed accordingly.

(ii) The material should be delivered to the consignees within 21 days from the date of issuance of despatch instructions/clearance. Any delay in delivery beyond this period shall attract penalty even though offer for pre-delivery inspection is made timely within the terminal date of delivery. In case of delay in supply recovered penalty and or to procure the material at firms risk and responsibility and or recover liquidated damages for delay in completion of project and any liability on account of non performance and delay. This will be applicable in respect of guarantee period transformer also

(iii) **Deferment of deliveries**

Discom-WZ reserves the right to defer or reschedule the delivery. In case of Variable prices, the Price Variation and any other statutory levies will be payable as applicable, however, in case of FIRM prices, no variation in price and any other statutory levies will be payable.

10. FORCE MAJEURE

Force majeure condition is herein defined as:-

- (a) Natural phenomena, such as floods, draughts, earth-quakes and epidemics.
- (b) Act of any Government Authority, domestic or foreign, such as war, quarantines, embargoes, licensing control or production or distribution restrictions.
- (c) Accident and disruptions such as fires, explosions, increase in power cut with respect to date of tender opening, break-down of essential machinery or equipments etc.
- (d) Strikes, slow down, lockouts continuing for more than three (3) weeks.
- (e) Failure or delay in the supplier's source of supply due to force majeure causes enumerated at (a) to (d) above, provided the supplier produces documentary evidence to show that there were no other alternative sources of supply available to him or if available, the lead time required was likely to be longer than the duration of the Force Majeure at the normal source of supply.
- (f) Any cause which is beyond the reasonable control of the supplier or purchaser as the case may be.

All the provisions of this clause shall apply whether the disrupting cause is total or partial in its effect upon the ability of the supplier to perform.

NOTE:- The cause of force majeure condition will be taken into consideration only if the supplier within 15 days from the occurrence of such delay notifies. The Discom-WZ shall verify the facts and grant such extension as the facts justify. For extension of delivery period on account of force majeure conditions, the supplier shall submit his representation with documentary evidence for scrutiny by the purchaser and decision of the Discom-WZ shall be binding on the firm.

11 TERMS OF PAYMENT

- 11.1 Subject to completion of all contractual formalities, 100% payment would ordinarily be made within 45 days or as per queue whichever is later after acceptance of material at Stores in good condition. The M.P.P.K.V.V. Co. Ltd, Indore shall not be liable for any interest due to delay in payment. The supplier while claiming for 100% payment shall have to certify that the prices as charged have not undergone any downward variation on account of IEEMA Circular(s) and that the claim for upward variation will be submitted separately.

The supplier shall forward the original RR/MTR and Excise gate pass directly to consignee along with copies of following documents :-

- i) A copy of bill
- ii) Delivery Challan
- iii) Original copy of excise duty gate pass (wherever applicable) along with a photocopy
- iv) The inspection and/ or T.C. approval
- v) Detailed packing list, if required.

- 11.2 The original bills should be forwarded to the paying authority and should be marked "**ORIGINAL**". The bill should indicate Sales Tax Registration Number and date allotted to him under Sales Tax Act.
- 11.3 The following documents will have to be forwarded to the paying authority along with bills in triplicate :-
- i) Bill/ Invoice.
 - ii) Xerox copy of despatch documents i.e. RR/ MTR etc.
 - iii) Dispatch clearance/instructions.
 - iv) Photo-copy of Excise Duty gate pass (wherever applicable).
- 11.4 For payment, the invoice in triplicate with relevant documents such as Material Receipt in good condition etc. should be submitted to the Director (F), MPPKVVCL, Indore for value more than Rs. 2.50 Lacs. The bills valued upto Rs. 2.50 Lacs, should be submitted to concerned Sr. A. O.MPPKVVCL.
- 11.5 The Material Receipt Certificate will be forwarded by the consignee to the paying authority for payment, as well as to the suppliers towards acknowledgement of receipt of material including part consignment to the extent it is received in good condition and is serviceable.

12. PENALTY

The time for and the date of delivery of the material stipulated in the order shall be deemed to be the essence of the contract. In case of delay in execution or non-execution of the order, the Discom-WZ at its option shall either recover from the supplier/contractor as agreed towards liquidated damages a sum of ½ % of the FOR destination (landed cost) price of any stores not delivered per week or part there of subject to a maximum of 10%.

For this purpose, the date of offer of material in the office of Order Placing Authority shall be considered as the date of delivery, subject to the condition that offer has been made 15 days in advance of terminal date of scheduled delivery and material is delivered at stores within 21 days of clearance. For early inspections, offer may be sent telegraphically or by fax. Discom-WZ will not be responsible for delays for ordinary/registered post inspection offers. Please note, in case material is not received within 21 days from the date of issuance of despatch instructions, even though the delivery period exists, penalty shall be reckoned from the original delivery period and the period of 21 days allowed for dispatch shall not be permitted and shall be taken into account for calculation of penalty.

In respect of return of transformer duly repaired/ replaced and within 60 days, the defective the transformer has to be lifted by the firm within 15 days from the date of intimation and has to be replaced within 45 days, failing which the company shall have full right to raise the liabilities and recover from supplier bill, as a penalty @ ½ % per week maximum of 10 % of the cost of the transformer under repair

13. PERFORMANCE GUARANTEE

- 13.1 If during the course of 24 months subsequent to the date of receipt of consignment (wherever applicable) any of the goods found to be defective in materials or workmanship or develops defects during service, they will have to be replaced by the supplier, free of all charges. All necessary arrangements on these accounts will be made by the supplier.
- 13.2 The said material if required to be replaced, shall be collected by the supplier/ firm from Area Stores/ work site at their own cost and at their own responsibility. These materials will like-wise be returned duly repaired/ replaced and tested subsequently by the supplier to the destination indicated on "FREIGHT PAID BASIS" at their cost in a reasonable time of 15 days from the date of intimation and has to be replaced within 45 days. The guarantee period as stipulated in clause 13.1 above shall also be applicable for repaired/replaced material, which shall however be counted afresh from the date of its delivery in our stores/site.
- 13.3 Further, it is clarified that all the charges towards carrying out repairs including packing, forwarding, loading, unloading shall be borne by the supplier. The amount deposited under security deposit clause shall also cover the performance guarantee of the material.
- 13.4 All equipment/ line materials reported failed within the specified guarantee period may be replaced free of cost by the Manufacturer.
- 13.5 Actual cost of dismantling and replacement of these equipments/ materials with the new ones may be charged to the supplier's account.
- 13.6 To and fro transportation cost of such failed equipment may also be borne by the supplier/ contractor.
- 13.7 In the event of the supplier's inability to adhere to the aforesaid provisions, suitable penal action will be taken against them, which may interalia include blacklisting of the firm for future business with the Discom-WZ for a certain period.

14. SECURITY DEPOSIT

- 14.1 On acceptance of offer, the supplier will have to deposit an amount of 10% of the total value of the order in cash or Demand Draft or Bank Guarantee as Security Deposit.
- 14.2 Cash to be deposited with office of Regional Accounts officer MPPKVVCL Indore MPPKVVCL, Indore and original receipt produced to this office shall be returned after conveying the acceptance of Security Deposit.
- 14.3 Demand Draft to be drawn in favour of Sr. A.O., MPPKVVCL Indore, drawn on any nationalized and payable at Indore.
- 14.4 Bank Guarantee in lieu of cash deposit on any nationalized bank strictly as per Company's proforma (to be supplied along with the order) valid sufficiently to cover the guarantee period.
- 14.5 All SSI Units registered with Industries Department of MP shall be required to pay Security Deposit for only 5% (five percent) value of the order, subject to maximum of Rs.20,000/- in cash or DD. This concession is for such SSI Units of M.P. who are doing business up to Rs.50 Lacs annually only.

- 14.6 The Security Deposit shall have to be deposited within 30 days of issue of order.
- 14.7 The Discom-WZ shall forfeit the security deposit in the event of non-execution/ part execution of the orders/poor performance of supplier/contractor besides invoking the Penalty Clauses.
- 14.8 The Security deposit shall be returned to the successful bidder only after due and faithful performance of the order as per terms and conditions of the order and on expiry of guarantee period provided there are no claims outstanding to be recovered against the bidders/ suppliers.
- 14.9 No interest shall be paid by the Discom-WZ on security deposit furnished by the suppliers.

15. COMPLETENESS OF EQUIPMENTS

The equipment/material shall be completed in every respect with all minor fittings and accessories, even though these may not be specifically mentioned in the purchaser's specifications or the tender's offer. The supplier shall not be eligible for any extra price in respect of such minor fitting and accessories which can be considered as an essential part of the basic equipment even though not specifically mentioned in the specification or in the offer.

16. EXTENSION ORDER

- 16.1 The Discom-WZ reserves right to place an extension order for any additional quantity to the extent of **50%** quantity of the original order on the same rates, terms and conditions within six months from the date of completion of original order.

17. DESIGN AND INTER-CHANGEABILITY

All similar material and removable parts of similar equipments shall be uniform and interchangeable with each other.

18. TESTING FACILITY & TESTS TO BE CONDUCTED

The bidder must give their production capacity, all about testing lab. and line testing facilities available with them in details for the tendered material. The bidder should also give the details of Tests proposed to be conducted in their labs in the event of order, with details of Indian Standard Specifications/codes.

19. MATERIAL TEST CERTIFICATE

Each item of the lot should be tested by the supplier and routine test certificate in duplicate giving the result of all tests prescribed in the relevant ISS (as mentioned in the Technical Specification Schedule) for ordered items shall be submitted to the office of the Order placing Authority for approval along with the letter/ offer for inspection of the material. Please note that each lot will be inspected at your works, which includes witnessing of all tests prescribed in ISS.

20. TYPE TEST CERTIFICATES

Wherever applicable or called for photocopies of type test certificates from NABL Accredited Laboratory duly attested by "Competent Testing Authority" should be submitted.

Type test reports/ certificates for the tests conducted as per latest applicable ISS on the tendered item/ material shall not be older than 5 years on the date of opening of technical/ commercial bid.

21. RECOVERIES FOR LIABILITIES AGAINST OTHER CONTRACTS

All amount recoverable from the successful bidders against earlier contracts including orders on sister concern with the Discom-WZ will be adjusted from payment due against the contract that may be awarded under this specification.

22. ROYALTIES AND PATENTS

All royalties for patents or any charges for usage or infringement thereof that may be involved in the supply shall be included in the offered price and the supplier shall protect Purchaser against any claim thereof. Supplier is fully responsible for such contractual dealing and purchaser shall not be called upon to bear any such charges.

23. COMPLIANCE OF REGULATIONS

The supplier shall warranty that all Goods covered under procurement, shall have been produced, sold, despatched, delivered, tested, in strict compliance with all applicable Rules, Regulations including Industries (Development and Regulations) Act 1951 and any amendment there under, labour agreements, working conditions and technical codes and requirements, as applicable from time to time.

The supplier should execute and deliver such documents, as may be needed, by the purchaser in evidence of compliance. All laws, Rules and Regulations are required to be incorporated in this reference. Any liability arising out of contravention of any of the laws shall be the sole responsibility of the vendor and the purchaser shall not be responsible in any manner whatsoever.

24. CANCELLATION OF ORDER

24.1 The Discom-WZ may upon written notice of default, terminate contract in the circumstances detailed hereunder:-

- 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 Board/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 Discom-WZ to the supplier to suspend further activities and to take urgent steps towards corrective measures, failing which the entire order would be cancelled.

24.2 In the event of such termination, the Company shall exercise its discretionary power as :-

a) To recover from the supplier the agreed liquidated damages as approved in the Clause No.12 above.

AND / OR

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

AND / OR

c) To cancel the contract reserving Discom-WZ's right to recover damages.

24.3 Notwithstanding that the powers under clause (24.2a, 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.

24.4 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 24.2(a) or (b) above, the supplier shall be liable to pay for any loss, which the Discom-WZ may sustain on that account but the supplier shall not be entitled to any saving on such purchases made against the default.

24.5 The decision of the Discom-WZ shall be final regarding the acceptability of the stores supplied by supplier and the Discom-WZ shall not be required to give any reason in writing or otherwise at any time for the rejection of the stores/ material.

24.6 In the event, Discom-WZ does not terminate the order as provided in clause 24.1 & 24.2 above, the supplier shall continue execution of this order, in which case he shall be liable to the Discom-WZ for liquidated damages for the delay as per clause 12 until supplies are accepted.

25. REDUCTION OF RATE DUE TO SUBSEQUENT TENDER

As a result of opening of the subsequent tender, if the rates received are found to be lower, then the pending supply against order shall be accepted at the lower rates.

26. ARBITRATION

If, at any time, any question, dispute or difference, whatsoever shall arise between the purchaser and the supplier, upon, or in relation to or in connection with the Contract, either party may forthwith 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 Purchaser 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 Arbitrator Act 1940, 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 supplier during the arbitration proceedings, unless otherwise, directed in writing by the Purchaser 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 in connection with this tender/ contract order shall be subject to exclusive jurisdiction of competent court at Indore only.

28. RANDOM TESTING-

28.1 Inspection of material before despatch or waiver of inspection will not relieve the supplier from his responsibility to supply the material strictly in accordance with the specification. The Discom-WZ shall have option to test the samples selected at random from the supplies affected and subject it to routine/ type test as per relevant ISS and Technical specifications.

28.2 In case, the samples fail to withstand the required test, the entire lot will be liable to be rejected (i.e. unused material so supplied) and the supplier will have to refund the amount paid, including all taxes and duties, as well as the test charges thereof, after inspection. Such quantities or rejected material as identified, shall be removed by the supplier and replaced in full at his own cost. Company will not be responsible for levy of taxes on such rejected material and deduction shall be in totality.

28.3 In case of random checking of the supplies, if any deviation is noticed, a notice shall be given to the supplier, who shall arrange to depute his representative within 15 days for joint inspection. If during joint inspection any deviation is observed and material supplied is found not conforming to standards laid down in the relevant ISS, the Company reserves the right to impose any appropriate penalty for full quantity of material supplied against the order. The decision of the Company in this respect shall be final and binding on the supplier.

29. VARIATION IN THE ORDERED QUANTITY

A tolerance in the ordered quantity will be allowed to the extent of $\pm 2\%$ (plus minus two percent) and not for each consignment. MRCs shall be issued for actual receipt of quantity only.

30. SUBMISSION OF DESPATCH DETAILS

On completion of supplies, a statement showing details of offer and supplies made shall be furnished to this office promptly i.e. in first week of following month in following proforma:-

Page 1

S.No.	Particulars	Qty. offered	Date of offer	Date of D.I.

Page 2

Qty. for which D.I. is given	Bill No. & Date	Qty. Supplied	Name of Consignee

Page 3

Liability intimated by consignee	Details of remittance of liability	Addl. information, if any	Remarks

Similar information for supplies made during each month shall be submitted by the first week of subsequent month.

31. CORRESPONDANCE:-

Copies of all important correspondence on subject should be sent to Director (Finance), MPPKVVCL Indore, the concerned consignee, Sr. Accounts Officer/Regional Accounts Officer and to this office. A copy of each invoice may also be sent to the S.E.(Stores Circle), MPPKVVCL, Indore. In addition to the above, one statement showing the details of dispatches made should be submitted to this office after completion of order.

32. CLIMATIC CONDITIONS

The climatic conditions where equipment is intended for installation could be taken as under:-

(i)	Maximum temperature of air in shed	45°C
(ii)	Minimum temperature of air in shed	4°C
(iii)	Maximum relative humidity	95 % (The humidity some time approaches saturation point)
(iv)	Minimum relative humidity	10 %
(v)	Average number of dust-storm days per annum	40 days
(vi)	Average number of rainy days per annum	90 days

(vii)	Number of months of tropical monsoon conditions per annum	3 months
(viii)	Average annual rainfall	1250 mm
(ix)	Maximum wind pressure	150 Kg / Sq. mm
(x)	Altitude not exceeding	1000 metres
(The limit of ambient temperature shall be 45°C peak and 35°C average over a period of 24 hours)		

In view reform process, the designations of various authorities mentioned in this tender document at many places viz. Sr. AO / RAO MPPKVVCL etc. are subject to change. These shall be intimated as & when required.

Sd/-
Chief Engineer (Corp. Office - Pur)
O/o CMD (WZ), MPPKVVCL,
Indore

ANNEXURE-IV

**LIST OF CONSIGNEE AREA STORES &
SENIOR / REGIONAL ACCOUNTS OFFICERS**

S.No.	Name of Consignee	Name of Station to which Materials are to be dispatched, if by Railway.	Concerned Sr. AO/ R.A.O. MPPKVVCL
1.	Addl. S.E. /E.E. (Stores) Area Store, MPPKVVCL, Indore	Indore (W.R.)	Indore
2.	Addl. S.E. /E.E. (Stores) Area Store, MPPKVVCL, Barwaha	Indore (W.R.)	Khandwa
3.	Addl. S.E. /E.E. (Stores) Area Store, MPPKVVCL, Ujjain	Ujjain (W.R.)	Ujjain
4.	Addl. S.E. /E.E. (Stores) Area Store, MPPKVVCL, Ratlam	Ratlam (W.R.)	Ratlam

ANNEXTURE –V

LIST OF BANKS

Sl.	Name of R.A.O./ Sr. A.O.	Name of Bank.
1.	INDORE	(i) BANK OF BARODA (ii) CENTRAL BANK OF INDIA (iii) STATE BANK OF INDIA
2.	KHANDWA	(i) STATE BANK OF INDIA
3.	UJJAIN	(I) STATE BANK OF INDIA
4.	RATLAM	(I) STATE BANK OF INDIA (II) CENTRAL BANK OF INDIA (III) DENA BANK

SCHEDULE – IV

SCHEDULE OF QUESTIONNAIRE

PART “A”: GENERAL INFORMATION

(TO BE KEPT IN THE ENVELOPE PART-II,
(COMMERCIAL/TECHICAL BID)”

- (i) Strike off, whichever is not applicable.
(ii) Separate sheets should be used, wherever necessary.

1.	Name & Address of the Bidder	
2.	Name & Address of the firm/Company etc	
	(a) Registered office	
	(b) Factory/ works address	
	(c) Telegraphic address	
	(d) Telephone Nos.	
	(e) Fax Nos.	
3.	Confirm whether bidder is a Manufacturer	Yes/ No.
4.	Only Manufacturer to give following particulars	
	(a) Address of factory	
	(b) Year of starting manufacture	
	(c) Whether same/similar materials Manufactured/printed earlier, (if yes, give reference	
	(d) Yearly/monthly production Capacity	
	(e) Maximum yearly production achieved so far	
5	Whether the firm is an MP SSI Unit	Yes/ No
	(a) If yes, write registration No.	
	(b) Whether documentary evidence regarding registration enclosed	
	(c) Items of registration	
	(d) Period of Registration	
	(e) Furnish latest copy of competency certificate	Yes/ No
6	(a) Whether the bidder is old participant with MPSEB	Yes/ No
	(b) If yes, whether document evidence enclosed.	
7.	Any other information that bidder If yes, whether document evidence enclosed.	If yes, give details may like to give in order to highlight his bid

PLACE:

SIGNATURE OF TENDERER

DATE

NAME IN FULL

DESIGNATION/ STATUS IN THE FIRM

COMPANY SEAL

SCHEDULE - IV
PART “B”: COMMERCIAL INFORMATION
 (TO BE KEPT IN THE ENVELOPE PART-II,
 (COMMERCIAL/TECHICAL BID)”

- (i) Strike off, whichever is not applicable.
 (ii) Separate sheets should be used, wherever necessary.

1.	i	Earnest Money details	Bank draft/ Bankers cheque in favour of AO MPPKVVCL Indore,
	ii	(a) Amount of EMD	Rs.
		(b) Particulars/details	
	iii	If exempted, state whether the bidder is	SSI Unit of M.P./ Small Scale unit registered with NSIC/ Fully owned State/ Central Govt. Unit.
	iv	Whether 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.		State whether the quoted prices are Firm/Variable	Variable
4.		Option of Modvat Benefit	(i) Please indicate the option you have adopted for payment of ED i.e. whether MODVAT Benefit availed or MODVAT benefit not availed. (ii) In case MODVAT benefit availed, please confirm that effect of MODVAT benefit has been taken care of while quoting the rates. Clarify in detail
5.A.	Central Excise duty		a. Extra to be paid by MPPKVVCL separately. b. Inclusive c. Not applicable. d. Exempted.
B.	ED is payable on Ex-works		Yes/ No
C.	Rate of ED on the date of bid		a) Rate of basic excise duty @ (Inclusive/exclusive) b) Plus special excise duty @% of ED (Inclusive/Exclusive)
D.	Who will pay for the upward revision of excise duty at the time of contractual delivery.		a) The same is to be borne by the tenderer b) The same is to be borne by the MPPKVVCL.

E.	How will the ED difference be regulated in case ED goes down at the time of contractual delivery explain clearly	
6.A)	Concessional Sales tax applicable (MPPKVVCL Registration No. as dealer under Central Sales Tax Act 1956 & MP General Sales tax Act 1958 Commercial tax (MP Sales tax)/CST- TIN No. 23380203311.	a) Concessional Central Sales Tax against declaration form b) VAT
B)	Rate of CST/ VAT on the date of bid.	@ %
C)	Whether Sales Tax as above is	a) Extra to be paid separately by MPPKVVCL b) Inclusive c) Exempted
D)	CST/VAT is payable only on Ex-works price + ED	Yes/No
E)	Who will pay for the upward revision of the CST/VAT at the time of contractual delivery	a) The same is to be borne by the tenderer. b) The same is to be borne by the MPPKVVCL.
F)	How will the CST/VAT difference be regulated in case CST/VAT goes down at the time of contractual delivery explain clearly.	
7.	Any other tax applicable like Municipal Tax. Octroi tax, Entry tax etc. should be specified (by word on it to be clarified destination price etc that is on what elements these taxes are applicable.	
8.	Mode of despatch	By Rail/By Road
9.	DISCOUNT:-	
i	Whether any rebate/ discount is offered	Yes/No
ii	If yes, whether the rebate is unconditional /conditional	
iii	Rate/ amount of rebate/ discount	
iv	If conditional state condition	
10.	PAYMENT TERMS	
	Whether Discom-WZ's terms of payment is acceptable to the tenderer (If no state conditions)	Yes/ No
11.	DELIVERY PERIOD	
a	Commencement of supplies from the date of order / approval of drawing.	

	b	Completion and supply rate from of the date of LOI/order/approval of drawing.	
12.		PENALTY CLAUSE	
		Whether agreeable to Discom-WZ's penalty clause	
13.		GUARANTEE PERIOD	
		Indicate guarantee period of material offered by you.	
14.		SECURITY DEPOSIT	
	a	Whether agreeable to furnish Discom-WZ's Security deposit @10% of value of order for satisfactory execution of the order and to cover guarantee period.	Yes/No
	b	If not, indicate deviation, specifically	
15.		Indicate State, Central Sales Tax Registration Number (Please note that in case of non-registration with Sales Tax Department Purchase	State
		Tax as admissible shall be deducted by the Purchaser from the bills of the supplier.	Central
16.		EXTENSION ORDER	Yes/ No
		Whether you are agreeable to accept extension order for 50% quantity on the same rates, terms & condition, if any extension order is placed within 6 months from the date of completion of original order.	
17.		Whether rates offered are applicable for part quantities also.	Yes/ No
18.		Have you noted that you have quoted prices in the desired format	
		Please furnish photocopy of the clearance from the Income Tax and Sales Tax Deptt. and profit and loss Account and Turn over for last 5 years up to the last financial year have been enclosed.	

PLACE:

SIGNATURE OF TENDERER

NAME IN FULL

DATE

DESIGNATION/ STATUS IN THE FIRM

COMPANY SEAL

SCHEDULE - IV
PART “C”:
TECHNICAL INFORMATION
 (TO BE KEPT IN THE ENVELOPE PART-II,
 (COMMERCIAL/TECHICAL BID)”

- (i) Strike off, whichever is not applicable.
 (ii) Separate sheets should be used, wherever necessary.

1.	i	Whether material offered is exactly as per the technical specification.	
	ii	If not, give details of technical deviation (Information may be given in deviation schedule given with documents for this purpose.	
2		Whether the list of orders received during last 3 years from other State Electricity Board/NTPC & from other organization for similar materials is furnished.	
2.		Whether the tender has furnished details of manufacturing equipments and short history of plant.	
3.		Whether pamphlets/technical details literature along with drawing etc. furnished with the offer	
4.		Whether the tender agrees to furnish material test certificates in respect of chemical composition and physical properties, wherever required, from Govt./Govt. approved Lab. With each bath of supplies.	
5.		Whether details of manufacturing process furnished with offer.	
6.	i.	Whether all testing facilities are available. If so, give details and in case of non-availability of facilities indicate approved lab. available in surrounding areas where tests are proposed to be conducted.	
	ii	Whether you agree for inspection by Discom-WZ’s representative prior to despatch and bear the testing charges for all tests as per relevant standard.	Yes/No
7.		Please furnish/indicate the quality assurance programme/plan of your product being followed in your works.	

PLACE:

SIGNATURE OF TENDERER

DATE

NAME IN FULL

DESIGNATION/ STATUS IN THE FIRM

COMPANY SEAL

SCHEDULE-VII

UNDERTAKING

I, Sole proprietor/ partner of M/s. is giving undertaking that details given are correct to the best of my knowledge and I agree to abide by all your tender/order terms and conditions.

PLACE:

SIGNATURE OF TENDERER

NAME IN FULL

DATE

DESIGNATION/ STATUS IN THE FIRM

COMPANY SEAL

SCHEDULE – VIII

DECLARATION BY THE TENDERER

(To be submitted on non-judicial stamp paper worth Rs.100/-)

I sole proprietor / partner / of M/s undertake that I am not interested as a proprietor and/or partner in any other firm, participated in the Discom WZ tender No. ---- due for opening on ----- for procurement of -----.

SIGNATURE OF TENDERER

NAME IN FULL

DESIGNATION/ STATUS IN THE FIRM

COMPANY SEAL

SCHEDULE-V

**PART "A"
SCHEDULE OF PAST EXPERIENCE**

Bidder's Name & Address:

To,

The Chief Engineer (Corp. Office - Pur),
O/o CMD (WZ),
M.P.P.K.V.V. Co. Ltd.,
GPH Campus, Pologround,
INDORE.

Sub: - **Performance/ past experience.**

Dear Sir,

We furnish herewith the record of our performance and experience of quoted items as follows:-

Sl. No.	Purchaser's Name and Address	Order Number and Date	Ordered Quantity	Quantity supplied	Value of Order
1	2	3	4	5	6

PLACE:

SIGNATURE OF TENDERER

NAME IN FULL

DATE

DESIGNATION/ STATUS IN THE FIRM

COMPANY SEAL

Note: - Photocopy of the orders & performance reports received from other State Electricity Boards/ Govt. undertakings etc. should be enclosed.

SCHEDULE-V
PART "B"
SCHEDULE OF COMMERCIAL DEVIATIONS

Bidder's Name & Address:

To,

The Chief Engineer (Corp. Office - Pur),
O/o CMD (WZ),
M.P.P.K.V.V. Co. Ltd.,
GPH Campus, Pologround,
INDORE.

Sub: - **Commercial Deviations.**

Dear Sir,

The commercial Deviations & variations to the specifications stipulated in the tender, for the item quoted are, as under:-

Sl. No.	Condition	Clause No. of tender document	Page No. of Tender document	Statement of deviations and variations
1	2	3	4	5

2. Except aforesaid deviations, the entire order, if placed, on us shall be executed in accordance with your specifications and any other conditions, variations/deviations etc. if found, elsewhere in our offer should not be given any considerations while finalizing the tender.

PLACE:

SIGNATURE OF TENDERER

NAME IN FULL

DATE

DESIGNATION/ STATUS IN THE FIRM

COMPANY SEAL

Note: - Continuation sheet of like size & format may be used as per bidder's requirements and shall be annexed to this schedule.

SCHEDULE-V

PART "C"

SCHEDULE OF TECHNICAL DEVIATIONS

Bidder's Name & Address:

To,

The Chief Engineer (Corp. Office - Pur),
O/o CMD (WZ),
M.P.P.K.V.V. Co. Ltd.,
GPH Campus, Pologround,
INDORE.

Sub: - **Technical Deviations.**

Dear Sir,

The Technical Deviations & variations to the specifications stipulated in the tender, for the item quoted are, as under:-

Sl. No.	Condition	Clause No. of tender document	Page No. of Tender document	Statement of deviations and variations
1	2	3	4	5

2. Except aforesaid deviations, the entire order, if placed, on us shall be executed in accordance with your specifications and any other conditions, variations/deviations etc. if found, elsewhere in our offer should not be given any considerations while finalizing the tender.

PLACE:

SIGNATURE OF TENDERER

NAME IN FULL

DATE

DESIGNATION/ STATUS IN THE FIRM

COMPANY SEAL

Note: - Continuation sheet of like size & format may be used as per bidder's requirements and shall be annexed to this.