



(Under jurisdiction of Nagpur court only)

WESTERN COALFIELDS LIMITED

(A subsidiary of Coal India Limited & A Government of India Enterprise)

CIN No. U10100MH1975GOI018626

| | |
|---|---|
| Office of the General Manager(MM) Materials Management Department, Coal Estate, Civil Lines Nagpur 440 001 | Ph. PBX : 0712 - 2511381, 2511227 EXT 5529 or 5824 Fax : 0712 - 2510284 Website : westerncoal.gov.in |
|---|---|

Formal Supply Order No:- 11100113318073

Dtd:- 24.08.2018

To,
M/s Mirzapur Electrical Industries Ltd
Dankeenganj,
Mirzapur-231001 (U.P.)

By Registered Post
Vendor Type:- MSE
Vendor Code:- 528019
Mob:- 9839458538
Email:-meiagrosos@gmail.com

Dear Sir,

Sub:-Supply of Power Transformers

Ref:- 1. Our e-tender no. WCL/hq-pur-asn-e103-2017-18 opened on 12.01.2018 (Tender Id No: 2017_WCL_87292_1)

2. Your online offer no. WCL/76/18/12137 (Bid Id No. 262128) & Subsequent correspondences on portal.

3. Your confirmation letter no. WCL/76/18/12838 dtd. 17.07.2018

With reference to the above; we are pleased to place formal order on you for supply of Power Transformers as per the specification, rates, terms and conditions as stipulated below :-

| SI No. | Item Description | Quantity (No.) | Basic Price (Rs./Unit) | Extended value (Rs.) |
|--|--|----------------|------------------------|----------------------|
| 1 | Power Transformer 33KV/3.4KV , 5MVA (For Maharashtra Areas) | 1 | 3100000.00 | 31,00,000.00 |
| 2 | Power Transformer 33KV/3.4KV , 5MVA (For Madhya Pradesh Areas) | 1 | 3100000.00 | 31,00,000.00 |
| 3 | Power Transformer 33KV/3.3KV , 1MVA (For Madhya Pradesh Areas) | 1 | 850000.00 | 8,50,000.00 |
| Total Extended Value | | | | 70,50,000.00 |
| Add Freight Charges @ Rs. 75,000 per unit for item no. 1 & 2 & @ Rs. 25,000/- per unit for item no. 3 | | | | 1,75,000.00 |
| Add. Insurance @ Rs. 9300 per unit for item no. 1 & 2 & @ Rs. 2550 per unit for item no. 3 | | | | 21,150.00 |
| Add GST@18% | | | | 13,04,307.00 |
| Add 1% CMPDI pre-despatch Inspection Charges | | | | 85,504.57 |
| Total Landed before ITC on GST | | | | 86,35,961.57 |
| Make of Power Transformers:- AGROSONS-Brand, MEI-Make | | | | |
| Scope of supply, detailed Technical Specifications and other technical terms and conditions/requirement as per Annexure-A Enclosed | | | | |

Total Value (in words):- Rupees Eighty Six Lakhs Thirty Five Thousand Nine Hundred Sixty One & Paise Fifty Seven Only

SALIENT TERMS AND CONDITIONS:

1. Prices : Prices shall be Firm & on F.O.R. Destination basis inclusive of Packing & Forwarding charges. However freight & insurance charges per unit shall be paid extra as under:

| Sl No. | Item Description | Freight (Rs.) | Insurance (Rs.) |
|--------|--|---------------|-----------------|
| 1 | Power Transformer 33KV/3.4KV , 5MVA (For Maharashtra Areas) | 75000 | 9300 |
| 2 | Power Transformer 33KV/3.4KV , 5MVA (For Madhya Pradesh Areas) | 75000 | 9300 |
| 3 | Power Transformer 33KV/3.3KV , 1MVA (For Madhya Pradesh Areas) | 25000 | 2550 |

Safe arrival of consignment at destination stores shall be your responsibility.

2. GST:- Shall be payable extra as applicable as per prevailing rules against invoice raised as per GST laws. The present applicable rate of GST is @ 18%. Input tax credit on GST shall be availed by WCL as per GST rule. You shall comply GST rule & upload the tax invoices/debit note/Credit note in GST portal, make payment of GST & file necessary returns under GST in time, to facilitate WCL to avail Input Tax Credit (ITC) as per eligibility criteria under GST. In case of any failure on your account, the penalty including interest (if any) borne by WCL shall be recovered from you.

3. Payment Terms :- 80% value of the equipment and accessories and 100% taxes and duties and other charges shall be made after receipt and acceptance of material at site by the consignee within 21 days.

Balance 20% payment shall be made after successful supervision by the supplier for completion of erection, testing, commissioning and upon presentation of certificates from the Area GM/HOD(Tech) of WCL HQ to the effect that the equipment has been erected and commissioned to their entire satisfaction. However, if the equipment is not put to use by the project within 120 days from the date of receipt and acceptance at consignee's end, the balance 20% shall be released.

Details of Bank account for EFT as provided by you in your offer are indicated below:

Bank Details:-

| | |
|--|---------------------|
| Name of the Bank and Branch | Dena Bank, Mirzapur |
| Address of the Branch of the Bank | Mirzapur |
| Account Number | 157411031016 |
| Nature of Account (Cash, Credit , Current, Saving) | Current |
| IFS Code of the Branch | BKDN0721574 |

4. Delivery :- Supply to be completed within 6 (Six) months from the date of placement of order. The delivery schedule shall be reckoned from 7th day of the order date.

5. Consignee: /Allocation : The indented material shall be consigned/allotted to:

| Area | Project | Item Description | Quantity | Consignee: |
|-------|---------------|--|----------|--|
| Pench | Jamunia | Power Transformer, 33kV/3.4kV, 5.0 MVA | 1 No | The Depot Officer, Regional Stores, WCL Pench Area, P.O: Chandameta-480447 Distt.: -Chhindwara, M.P |
| | Neharia | Power Transformer, 33kV/3.4kV, 1.0 MVA | 1 No | |
| Majri | Yekona I & II | Power Transformer, 33kV/3.4kV, 5.0 MVA | 1 No | The Depot Officer, Regional Stores, WCL New Majri , Majri Area P.O.: -Shivaji Nagar, Distt:-Chandrapur-(M.S) |

GST No. (Provisional ID) for WCL Maharashtra Areas:- 27AAACW1578L1ZW

GST No. (Provisional ID) For WCL Madhya Pradesh Areas – 23AAACW1578L1Z4

6. Guarantee/Warranty: The tenderer shall be fully responsible for the manufacturers warranty in respect of proper design, quality, workmanship of the material for a period of 18 months from the date of receipt and acceptance of the materials at ultimate destination or 12 months from the date of usage, whichever is earlier.

7. Capitalization Cost & Penalty:- The tender is evaluated based on the capitalisation cost, which is calculated as per the formula indicated below:

$$A = B + 75000 \times C (D + 0.4 E)$$

Where

A = Capitalization cost.

B = Landed cost as per quoted price.

C = Power cost (in Rs./KWH) as per the tariff of Electricity Boards (EBs).

= Rs.6.78/KWH for Maharashtra Areas & Rs. 10.51/KWh for Madhya Pradesh Areas

D = No load loss (KW) at rated voltage and frequency.

E = Load loss (KW) at rated Current & frequency at 75 degree.

The loss figure (D&E) as indicated by you in technical offer as well as in Price Bid/ BOQ are as under:

| Sl No. | Item Description | No Load Loss (KW) (D) | Load Loss (KW) (E) |
|--------|---|-----------------------|--------------------|
| 1 | Power Transformer 33KV/3.4KV 5MVA (For Maharashtra Areas) | 3.6 | 19 |
| 2 | Power Transformer 33KV/3.4KV 5MVA (For Madhya Pradesh Areas) | 3.6 | 19 |
| 3 | Power Transformer 33KV/3.3KV 1MVA (For Madhya Pradesh Areas) | 0.8 | 6.5 |

PENALTY: If it is found at the time of inspection that there is variation between the quoted loss figures and the actual loss figures, penalty will be imposed as per the formula indicated below:

(i) Penalty for increase of every 0.1 KW on No Load Loss= $75000 \times C \times 0.1 = 7500 \times C$

(ii) Penalty for increase of every 0.1KW on Load Loss= $75000 \times C \times 0.4 \times 0.1 = 3000 \times C$.

The above penalty will be imposed up to 10% of the quoted loss figures. If the loss figures are found to be more than 10% higher than the quoted loss figures, the transformer will be rejected during the inspection.

8. Installation & Commissioning:-Transformers shall be installed and commissioned by WCL. You have to provide technical supervision only for carrying out installation and commissioning job.

9. Security Deposit:-You will have to furnish the security deposit amount to this office in the form of Demand Draft or Bank Guarantee of any scheduled / Nationalized bank for 10% (ten percent) value of the awarded contract (landed value) i.e. for Rs. 8,63,597 /- (Rupees Eight Lakhs Sixty Three Thousand Five Hundred Ninety Seven Only) within 15 days time from the date of supply order. In case you fail to deposit the security money, the order shall be cancelled and the case shall be processed to order elsewhere and performance of the firm shall be kept recorded for future dealings with them.

Security deposit money will be refunded to the firm within 30 days from the date of satisfactory execution of the contract.

For unsatisfactory performance and / or contractual failure, the security money shall be forfeited.

The security deposit may be converted into PBG as per NIT Provision after completion of supplies.

Format of Bank Guarantee for SD is enclosed as per Annexure-C

The bank guarantee issued by the banker of the firm shall be operational for all purposes at Nagpur branch (Maharashtra).

The Bank Guarantee issued by the issuing bank on behalf of the supplier in the favour of Western Coalfields Ltd shall be in paper form as well as issued under "Structured financial messaging system". The details of beneficiary for issue of BG under SFMS platform is furnished below:

| | |
|---|--|
| Name of beneficiary and details | |
| Name | Western Coalfields Ltd |
| Area | Head Quarter |
| Bank Account No: | 005905018053 |
| Customer ID of Beneficiary | 556096497 |
| Bank A/c No: / Cust ID of beneficiary | Customer ID: 556096497 Bank A/c no: 005905018053 ICICI Bank Ltd, Vishnu Vaibhav, 222, Palm Road, Civil Lines, Nagpur |
| IFSC code | ICIC0000059 |
| Bank Manager Name & Ph no: | Hrushikesh Sakalkale Ph n: +91-9923202096 |
| BG Advising Message- 760COV/767COV via SFMS | |
| Field Number | Particulars |
| 7035 | ICIC0000059 |
| 7037 | WCL556096497 |

The original bank guarantee issued by the issuing bank shall be sent by the issuing bank to the following address by Registered post /AD.

General Manager (MM) I/c
Materials Management Wing
Western coalfields ltd HQ
Coal Estate, Civil lines
Nagpur – 440001
Maharashtra

Any extension / amendments to the BG shall be done following the same procedure as above.

10. INSPECTION CLAUSE:

a) **Pre- Dispatch Inspection:-** The materials shall be inspected by CMPDIL , Ranchi at manufacturer's works before dispatch. The inspection fee as applicable at the time of inspection (presently Inspection charge is @ 1 % on FOR Destination price [basic price + freight + insurance + P & F etc.]) shall be initially paid by you to the inspection agency, which shall be subsequently reimbursed by the paying authority to the you along with payment against documentary evidence i.e. e-money receipt generated online by SBI e-collect. The payment of pre-despatch inspection fee shall be made by you online through State Bank Collect through a hyperlink available on CMPDI website i.e. www.cmpdi.co.in. Minimum 10 days advance notice shall be given by you to the inspecting agency to carry out pre dispatch inspection. Necessary tools and tackles etc to carry out pre dispatch inspection shall be provided by you. In case of any defect in the material supplied is noticed later, pre dispatch inspection shall not entitle you to plead that inspection has been done by CMPDIL before dispatch and shall not absolve you from the contractual obligation.

Since you are eligible for ITC on GST charged by the inspecting authority for pre-despatch inspection charges, GST on pre-despatch inspection charges shall not be claimed by you vis-a vis will not be reimbursed by WCL.

b) **Final Inspection:-** Final Inspection of the consignment shall be carried out at the destination stores, which will be arranged by the consignee on receipt of stores.

11. **Paying Authority:-** General Manager (Fin)I/c, WCL Hqrs, Nagpur (MS) -440001

12. Submission of Bills :-

A) For claiming 80% Payment

Pre- receipted and stamped invoice for 80% of each materials with 100% taxes and duties and other charges shall be submitted in "QUADRUPPLICATE" to the consignee along with following documents:

- i. Consignment note/RR/LR in original.
- ii. Warranty/Guarantee certificate.
- iii. Performance Bank Guarantee (PBG)
- iv. Delivery Challan in original.
- v. GST Compliant Invoices
- vi. Manufacturer's test certificate/ Test certificate from Govt./Govt. approved test house/ Type Test certificate as per technical specification
- vii. CMPDI Pre-dispatch inspection report
- viii. Other document if any as per supply order /technical specification

The consignee shall forward the bills to the paying authority duly accepted along with SRV well within time so that payment is released within stipulated period of 21 days.

B) For claiming Balance 20% Payment

- i. Pre- receipted and stamped invoice for 20%
- ii. Installation & commissioning report from Area GM/HOD(Tech)

13. Performance Bank Guarantee (PBG):- You will have to submit performance bank guarantee as per format enclosed at Annex-C for 10% of the order value (landed cost) valid for a period of 18 months of from the date of receipt and acceptance of materials to cover the guarantee period and the same shall be released on receipt of satisfactory performance throughout the guarantee period or extended as deemed fit. The Bank Guarantee shall be released after successful completion of the Guarantee/Warranty period after obtaining confirmation from GM(E&M)HOD. The PBG may be submitted immediately after dispatch of materials. No Payment shall be made without submission of confirmed PBG.

The bank guarantee issued by the banker of the firm shall be operational for all purposes at Nagpur branch (Maharashtra).

The Bank Guarantee issued by the issuing bank on behalf of the supplier in the favour of Western Coalfields ltd shall be in paper form as well as issued under "Structured financial messaging system". The details of beneficiary for issue of BG under SFMS platform is indicated in clause no. 9 above.

14. Liquidated Damages:- In the event of failure to deliver or dispatch the stores within the stipulated date / period in accordance with the samples and/or specification mentioned in the supply order, and in event of breach of any terms and conditions mentioned in the supply order, Coal India Limited shall have the right,

- a) To recover from the successful bidder as agreed liquidated damages, a sum not less than 0.5% (half percent) of the price of any stores which the successful bidder has not been able to supply as aforesaid for each week or part of a week during which the delivery of such stores may be in arrears limited to 10%. Where felt necessary the limit of 10% can be increased to 15% at the discretion of Head of the Materials Management Division
- b) To purchase elsewhere, after due notice to the successful bidder on the account and at the risk of the defaulting supplier the stores not supplied or others of a similar description without canceling the supply order in respect of the consignment not yet due for supply, or
- c) To cancel the supply order or a portion thereof, and if so desired to purchase the stores at the risk and cost of the defaulting supplier and also-

- d) To extend the period of delivery with or without penalty as may be considered fit and proper, the penalty, if imposed shall not be more than the agreed Liquidated Damages referred to in clause (a) above.
- e) To forfeit the security deposit full or in part.
- f) Whenever under this contract a sum of money is recoverable from any payable by the supplier, WCL shall be entitled to recover such sum by appropriating, in part or in whole by deducting any sum from any other contract should this sum be not sufficient to cover the full amount recoverable. The successful bidder shall pay WCL on demand the remaining balance. The supplier shall not be entitled to any gain on any such purchase.

15. Force Majeure Clause:- If the execution of contract / supply order is delayed beyond the stipulated period in the contract/supply order as a result of outbreak of hostilities declaration of an embargo or blockade, or fire, flood, acts of nature, or any other contingency beyond the supplier's, control due to act of God then Western Coalfields Limited, may allow such additional time by extending the delivery period as it considers to be justified in the circumstances of the case and its decision shall be final. If and when additional time is granted by the Western Coalfields Limited, the contract/ supply order shall be read and understood as if it had contained from its inception the delivery date as extended.

You will advise, in the event of having to resort to this clause by a registered letter duly certified by the local Chamber of Commerce or Statutory authorities, the beginning and end of the causes of the delay, within fifteen days of the occurrence and cessation of such Force Majeure Conditions.

For delays arising out of Force Majeure, supplier will not claim extension in completion date for a period exceeding the period of delay attributable to the causes of Force Majeure and neither WCL nor the supplier shall be liable to pay extra costs provided it is mutually established that Force Majeure Conditions did actually exist.

16. Price CERTIFICATE:- You shall certify on the body of bills/invoices that

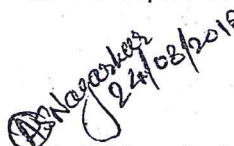
"Certified that we have not offered the same products at a price lower than that offered in the present bid in respect of any other ministry/ department of the Govt. of India or a PSU. In case we offer the lower prices for same items under similar terms within the validity of this order to ministry/department of the Govt. of India or a PSU, we undertake to notify such reduction to the buyer and the same will also be applicable against this offer."

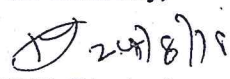
17. Manufacturing certificate : As the order is being placed on the basis of consideration that you are manufacturer of the ordered stores, you will have to provide a certificate to the following effect on the body of each bill :-

a) *"Certified that the items supplied included in this bill/invoice are of own make have been actually manufactured in our works situated at. (address of the factory)."*

Unless otherwise specified above, this Supply order shall also be governed by our General Terms and Conditions-Annex "B" enclosed herewith.

Please acknowledge receipt of this Supply order within 15 days and return duplicate copy of this order duly signed with seal of your company as a token of acceptance, otherwise it will be presumed that you have accepted the Supply order as per terms and conditions, for execution.


(Ashish S. Nagarkar)
Dy. Manager (MM)

Your faithfully,

(KSR Divakar)
Chief Manager (MM)

Encl.:

- I. Detailed technical specification:- Annex- "A"
- II. General Terms and conditions-Annex "B" (11 Pages)
- III. Format of Bank Guarantee for SD/PBG- Annex "C" (2 Pages)

Copy to:-

- i. Area GM/Depot Officer/SO(MM)/SO(E&M)-Majri/Pench Area
- ii. GM(E&M)HOD; GM(P&P)HOD, WCL (HQ) Nagpur
- iii. GM(Fin)I/c -I/ GM(Fin)I/c -II, WCL (HQ) Nagpur
- iv. GM(MM)HOD, NCL/SECL/MCL/NECL/BCCL/CCL/ECL
- v. GM(E&M)HOD, CMPDIL, Gondwana Place,, Kanke Rd, CMPDI Complex, Ranchi, Jharkhand Pin-834008

Indent /Allocation & Budget Details:- Item wise Allocation as per clause no. 5 Above.

| Item Description | Projects | Area | Quantity | Indent No |
|---------------------------------------|---------------------------|-------|----------|-------------------------|
| Power Transformer 33KV/3.4KV, 5MVA | Amalgamated Yekon I&II | Majri | 1 No | 3600316 dtd. 11.08.2016 |
| Power Transformer 33KV/3.4KV, 5MVA | Jamunia | Pench | 1 No | 56 dtd. 31.10.2016 |
| Power Transformer 33KV/3.3KV, 1MVA | Neharia | Pench | 1 No | A-4612 dtd. 23.05.2016 |

Budget Ref:- FA/WCL/CAP/BC/OPM/173 dtd. 09.08.2018 for Rs..86,35,961 /-

Nagesh Kumar
24/08/2018
Dy. Manager (MM)

P. P. P.
Chief Manager (MM)

Detailed Technical Specification

ANNEXURE- "A"

| Description of Item | Specification Parameter |
|--|--|
| NIT ITEM NO. 1 | |
| Power Transformer, 33kV/3.4kV, 5.0 MVA (For Maharashtra Area) | Quantity required :1 No. |
| | 1.1 Max. no load loss in KW (at rated voltage and frequency) |
| | 3.6 KW |
| | 1.2 Max. load loss in KW (at rated current at 75 deg. C) |
| | 19.0 KW |
| | NOTE : Since the losses to be indicated are maximum figures, no tolerance on plus side will be permitted over the test figures of losses: |
| | 1.3-Impedance voltage at rated current at 75 deg. C in % |
| | 7.15 |
| | 1.4-Reactance at rated current and rated frequency in % |
| | 7.5 |
| | 1.5-No load current at rated voltage and rated frequency |
| | 2% of Full Load current |
| | 1.6-Efficiencies at 75 deg. C. and at unity P.F. - |
| | 1.7-At full load % |
| | 99.55 |
| | 1.8-At ¾ full load % |
| | 99.62 |
| | 1.9-At ½ full load % |
| | 99.67 |
| | 1.10-Regulation at full load at 75 deg.C. |
| | 1.11-At unity power factor |
| | 0.66 |
| | 1.12-At 0.8 power factor lagging |
| | 5.77 |
| | 1.13-Approximate masses in Kgs - |
| | 1.14-Core and windings |
| | 8700 |
| | 1.15-Tank, fittings and accessories |
| | 2700 |
| | 1.16-Oil |
| | 2500 |
| | 1.17-Total mass |
| | 13900 |
| | 1.18-Approx. quantity of oil required in litres for first filling |
| | 2970 |
| | 1.19-Approx. overall dimensions in mm -Length,Breadth,Height |
| | 2850 x 3100 x 2940 |
| | 1.20-Temperature rise in deg.C.,Top oil and Windings |
| | 45 & 50 |
| | 1.21-Thickness of steel sheet used for fabrication of tank |
| | 5 mm |
| | 1.21-Type: Power Transformer |
| | 1.22 Make/Model of Power Transformers:- AGROSONS-Brand, MEI-Make |
| | NOTE:- Tolerance on weights and dimensions (±) 10%. |
| NIT ITEM NO. 2 | |
| Power Transformer, 33kV / 3.4kV, 5.0 MVA (For Madhya Pradesh Area) | Quantity required :1 No. |
| | Detailed Technical Specification shall be same as per item no. 1 above. |
| NIT ITEM NO. 3 | |
| Power Transformer, 33kV / 3.4kV, 1.0 MVA (For Madhya Pradesh Area) | Quantity required :1 No. |

| | | |
|---|---|-------------------------|
| | 1.1 Max. no load loss in KW (at rated voltage and frequency) | 0.8 KW |
| | 1.2 Max. load loss in KW (at rated current at 75 deg. C) | 6.5 KW |
| | NOTE :- Since the losses to be indicated are maximum figures, no tolerance on plus side will be permitted over the test figures of losses. | |
| | 1.3-Impedance voltage at rated current at 75 deg. C in % | 6.25 |
| | 1.4-Reactance at rated current and rated frequency in % | 6.22 |
| | 1.5-No load current at rated voltage and rated frequency | 2% of Full Load current |
| | 1.6-Efficiencies at 75 deg. C. and at unity P.F. - | |
| | 1.7-At full load % | 99.28 |
| | 1.8-At ¾ full load % | 99.40 |
| | 1.9-At ½ full load % | 99.51 |
| | 1.10-Regulation at full load at 75 deg.C. | |
| | 1.11-At unity power factor | 0.84 |
| | 1.12-At 0.8 power factor lagging | 4.99 |
| | 1.13-Approximate masses in Kgs - | |
| | 1.14-Core and windings | 1700 |
| | 1.15-Tank, fittings and accessories | 1000 |
| | 1.16-Oil | 850 |
| | 1.17-Total mass | 3550 |
| | 1.18-Approx. quantity of oil required in litres for first filling | 935 |
| | 1.19-Approx. overall dimensions in mm-Length, Breadth, Height | 2100 x 2000 x 2300 |
| | 1.20-Temperature rise in deg.C., Top oil and Windings | 45 & 50 |
| | 1.21-Thickness of steel sheet used for fabrication of tank | 4 mm |
| | 1.22 Make/Model of Power Transformers:- AGROSONS-Brand, MEI-Make | |
| | NOTE:- Tolerance on weights and dimensions (±) 10%. | |
| COMMON PARAMETERS | | |
| 2.0-Type: Power Transformer | | |
| SITE CONDITION | 3.1-Maximum ambient air temperature: 50 deg.C. Minimum ambient air temperature: 5 deg. C. | |
| | 3.2-Relative humidity: 95.00% | |
| | 3.3-Altitude (From MSL): within 1000 M | |
| | 3.4-Environment: Dusty (Mostly coal dust) | |
| CONFORMITY TO STANDARDS: (Latest amended upto date) | 4.1-Power Transformers: IS:2026 (Part 1 to Part 5) | |
| | 4.2-Fitting and accessories: IS:3639 | |
| | 4.3-New insulating oil: IS:335 | |
| | 4.4-Bushings: IS:2099 | |
| | 4.5-Dimensions for transformer bushings: IS:3347 (relevant parts) | |
| | 4.6-Mild steel transformer cooling tubes: IS:8036 | |
| | 4.7-Paper covered copper conductors: IS:7404 (relevant parts) | |
| | 4.8-Gas operated relays: IS:3637 | |
| | 4.9-Silicagel: IS:3401 | |

| | 4.10-STATUTORY REGULATIONS: Indian Electricity Act and Central Electricity Authority Regulation 2010 (Technical standard for construction of Electrical Plants & Line for Measures related to Safety as applicable.) | | | | | | | | | | | | | | | | | | |
|---|---|-----------------------|--------------------|--------|------------------|-----------------------|--------------------|---|---|-----|----|---|--|-----|----|---|--|-----|-----|
| | <p>4.11 :- Capitalization Cost y:- The tender is evaluated based on the capitalisation cost, which is calculated as per the formula indicated below: $A = B + 75000 \times C (D + 0.4 E)$ Where A = Capitalization cost. B = Landed cost as per quoted price. C = Power cost (in Rs./KWH) as per the tariff of Electricity Boards (EBs). = Rs.6.78/KWH for Maharashtra Areas & Rs. 10.51/KWh for Madhya Pradesh Areas D = No load loss (KW) at rated voltage and frequency. E = Load loss (KW) at rated Current & frequency at 75 degree.</p> <p>The loss figure (D&E) as indicated by you in technical offer as well as in Price Bid/ BOQ are as under:</p> <table border="1" data-bbox="523 846 1426 1122"> <thead> <tr> <th>Sl No.</th> <th>Item Description</th> <th>No Load Loss (KW) (D)</th> <th>Load Loss (KW) (E)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Power Transformer 33KV/3.4KV 5MVA (For Maharashtra Areas)</td> <td>3.6</td> <td>19</td> </tr> <tr> <td>2</td> <td>Power Transformer 33KV/3.4KV 5MVA (For Madhya Pradesh Areas)</td> <td>3.6</td> <td>19</td> </tr> <tr> <td>3</td> <td>Power Transformer 33KV/3.3KV 1MVA (For Madhya Pradesh Areas)</td> <td>0.8</td> <td>6.5</td> </tr> </tbody> </table> | | | Sl No. | Item Description | No Load Loss (KW) (D) | Load Loss (KW) (E) | 1 | Power Transformer 33KV/3.4KV 5MVA (For Maharashtra Areas) | 3.6 | 19 | 2 | Power Transformer 33KV/3.4KV 5MVA (For Madhya Pradesh Areas) | 3.6 | 19 | 3 | Power Transformer 33KV/3.3KV 1MVA (For Madhya Pradesh Areas) | 0.8 | 6.5 |
| Sl No. | Item Description | No Load Loss (KW) (D) | Load Loss (KW) (E) | | | | | | | | | | | | | | | | |
| 1 | Power Transformer 33KV/3.4KV 5MVA (For Maharashtra Areas) | 3.6 | 19 | | | | | | | | | | | | | | | | |
| 2 | Power Transformer 33KV/3.4KV 5MVA (For Madhya Pradesh Areas) | 3.6 | 19 | | | | | | | | | | | | | | | | |
| 3 | Power Transformer 33KV/3.3KV 1MVA (For Madhya Pradesh Areas) | 0.8 | 6.5 | | | | | | | | | | | | | | | | |
| | <p>4.12 PENALTY: If it is found at the time of inspection that there is variation between the quoted loss figures and the actual loss figures, penalty will be imposed as per the formula indicated below:</p> <p>(i) Penalty for increase of every 0.1 KW on No Load Loss= $75000 \times C \times 0.1 = 7500 \times C$ (ii) Penalty for increase of every 0.1KW on Load Loss= $75000 \times C \times 0.4 \times 0.1 = 3000 \times C$.</p> <p>The above penalty will be imposed up to 10% of the quoted loss figures. If the loss figures are found to be more than 10% higher than the quoted loss figures, the transformer will be rejected during the inspection.</p> | | | | | | | | | | | | | | | | | | |
| SCOPE OF SUPPLY: Transformer complete with following fittings | <p>5.1-Out door type bushing on H.T. and L.T. Sides 5.2-Oil conservator complete with filling hole and drain cock. -Oil level indicator with min. marking flush type, -Dehydration silica gel breather,Air release plug, Explosion vent, -Lifting lugs,Jacking pads, -Two earthing terminals with lugs. -Inspection cover,Drain valve with plug or cover plate, -Thermometer pocket with dial type thermometer with maximum point indicator with additional alarm contacts. -Valve between conservator & tank. -Radiators detachable with flanged joints and valves. -Four rollers for lateral and long movement. -Rating plate,</p> | | | | | | | | | | | | | | | | | | |

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| | 5.3-Bucholz relay, double float type with set of contacts for alarm and trip. -Externally operated OFF circuit tap changing switch with indicator and locking arrangements.Dial type C.T. operated winding temp. indicator with max. reading indicator and alarm and trip contacts.Terminal marking plate,First filling of new insulating oil, |
| | 5.4-NGR system complete in all respect of suitable rating |
| | 5.5-Any other item(s) not specified above, but required for the completeness of the Transformer for its commissioning and smooth operation is (are) also included in the scope of supply. |
| TECHNICAL PARAMETERS : | 6.1-Service: Outdoor duty |
| | 6.2-Type: Core type |
| | 6.3-Number of Phases: Three |
| | 6.4-Frequency; 50 Hz |
| | 6.5-Type of winding; Double wound copper |
| | 6.6-Type of cooling; ONAN |
| | 6.7-Type of cooling medium; New insulating oil |
| Connections | 7.1-High voltage; Delta |
| | 7.2-Low voltage; Star |
| | 7.3-Vector group; Dy - 11 |
| | 7.4-Max. allowable earth Fault current with NGR; 50Amps. |
| | 7.5-TAPPINGS : +/- 2½%, +/-5%, +/-7½%, +/-10% of rated voltage on HV side. |
| | 8.0-AFTER SALES & SERVICES- You have to depute Experienced technical person at the time of erection, commissioning and testing |
| Pre-despatch inspection and tests : | 9.1-The transformers will be inspected by CMPDIL, Ranchi at manufacturer's works before dispatch of the equipment to ascertain the conformity of the transformer to order specifications, relevant ISS, statutory regulations, etc. |
| | 9.2-The manufacturer shall make available to the inspector, the required test facilities with necessary support for conducting all routine tests as per the relevant ISS & supply order. |
| | (a) Copies of all relevant IS specifications. |
| | (b) Copy of supply order complete with specifications. |
| | (c) Copy of dimensional drawings submitted with their offer. |
| | (d) Copies of type test certificates. |
| DOCUMENTS TO BE SUBMITTED WITH THE SUPPLIES : | (e) Copies of works test certificate. |
| | 10.1-Technical Brochures/Leaflets in respect of the supplied items. |
| | 10.2-Certified copies of works test certificate for all routine tests as per IS:2026 conducted on transformers of tendered rating or higher rating (both in voltage and KVA rating) |
| | 10.3-Copy of inspection report of inspecting authority |
| | 10.4-Copies of type test certificates. |

(Signature)
24/08/2018
Dy. Manager (MM)

(Signature)
24/08/2018
Chief Manager (MM)

