

THE WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED

(A Government of West Bengal Enterprise)

Corporate Identity No. U40104WB1985SGC039154

Santaldih Thermal Power Station

PO. : Santaldih Thermal Plant, Dist. : Purulia, Pin-723146



((Tender Notice for Website))

NIT No: WBDCL/Tend-Adv/CC/16-17/133/STPS

Date: 16.07.2016

Tender Ref. No. : STPS/M&C/Press Tender/834/EM(OPH)/15-16/322

Date: 12.07.2016

Sealed Tenders in prescribed format are invited from eligible, experienced, resourceful, reputed manufacturers / authorized dealers of such manufacturers for procurement of 33 kV CTs & PTs for Bhojudih Feeder 1&2 under EM(OPH) Dept., Santaldih T.P.S. as per item descriptions mentioned below:

Sl. No.	Item Code	Item Description	Quantity	Unit																												
1	04C131085	<p>Single Phase Out door type Oil filled Current Transformer. Highest System Voltage: 36kV. Rated Voltage: 33kV. Frequency: 50HZ. Rated primary Current: 400Amp. Insulation Level: 70kV/170kVP. Short time thermal current: 25kA (RMS) for 3 sec. Dynamic current: 62.5kAP. IS- 2705/1992</p> <table border="1"> <thead> <tr> <th>Core</th> <th>Ratio</th> <th>VA</th> <th>Accuracy</th> </tr> </thead> <tbody> <tr> <td>1S1 – 1S2</td> <td>400/1</td> <td>15</td> <td>0.2</td> </tr> <tr> <td>1S1 – 1S3</td> <td>200/1</td> <td>15</td> <td>0.2</td> </tr> <tr> <td>2S1 – 2S2</td> <td>400/1</td> <td>15</td> <td>5P10</td> </tr> <tr> <td>2S1 – 2S3</td> <td>200/1</td> <td>15</td> <td>5P10</td> </tr> <tr> <td>3S1 – 3S2</td> <td>400/1</td> <td>30</td> <td>5P10</td> </tr> <tr> <td>3S1 – 3S3</td> <td>200/1</td> <td>30</td> <td>5P10</td> </tr> </tbody> </table> <p>Primary Terminal Dia. - 30mm Primary Terminal Projection: - 90mm</p>	Core	Ratio	VA	Accuracy	1S1 – 1S2	400/1	15	0.2	1S1 – 1S3	200/1	15	0.2	2S1 – 2S2	400/1	15	5P10	2S1 – 2S3	200/1	15	5P10	3S1 – 3S2	400/1	30	5P10	3S1 – 3S3	200/1	30	5P10	4	NO
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2	04T050993	<p>Oil cooled type Outdoor Potential Transformer. Highest System Voltage: 36KV, Rated voltage: 33KV, IS: 3156:1992, Frequency: 50 HZ, IL: 70 KV (rms) / 170 KVP, RVF: 1.2 continuous & 1.5 for 30 Sec. Primary Terminal Dia: 30mm, Projection: 80mm</p> <table border="1"> <thead> <tr> <th>Core</th> <th>Ratio</th> <th>Burden</th> <th>Accuracy</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>33KV/• 3 / 110V/• 3</td> <td>100VA</td> <td>0.5</td> </tr> <tr> <td>2</td> <td>33KV/• 3 / 110V/• 3</td> <td>100VA</td> <td>3P</td> </tr> </tbody> </table>	Core	Ratio	Burden	Accuracy	1	33KV/• 3 / 110V/• 3	100VA	0.5	2	33KV/• 3 / 110V/• 3	100VA	3P	5	NO																
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Name of the Procurement: Procurement of 33 kV CTs & PTs for Bhojudih Feeder 1&2 under EM(OPH) Dept., Santaldih T.P.S.

Information to the bidders: This is a three part bidding system containing **Earnest Money (Part-I), Qualifying Requirements (Part-II) and Price Bid (Part-III)**. Tenders will be received and evaluated by Santaldih T.P.S., the WBDCL from technical and financial point of view to make the best selection for the interest of the WBDCL for the complete procurement covered under the Tender Document. Material specification and other Technical particulars are as per **Annexure-A**. Other Terms & Conditions in detail will be mentioned in the Tender Document.

Earnest Money: The Earnest Money of **Rs. 10,000/-** (Rupees Ten Thousand only) shall be deposited along with Tender Document in the form of Bank Draft/Pay Order issued by any nationalized Bank from India in favour of **“THE WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED”** payable at United Bank of India, Santaldih branch or State Bank of India, Purulia branch or payable at Kolkata for other Banks. NSIC/SSI Units are exempted from submission of Earnest Money. Necessary certificate is to be submitted for NSIC/SSI units.

Estimated Cost: Around **Rs. 3,84,000/-** (Rupees Three Lac Eighty Four Thousand only)

Cost of Tender Document: Rs. 400/- (Rupees Four Hundred only)

Qualifying Requirements (Q.R.):

- 1) The bidder must be the manufacturer or its authorized dealer of the quoted items.
- 2) In case of authorized dealer, the bidder must have to possess an authorization certificate issued from the manufacturer whose CTs & PTs are being offered.
- 3) The manufacturer whose CTs & PTs are being offered must have at least 07 (Seven) years or more experience in manufacturing of CTs & PTs with same or higher Voltage grade from the date of publication of the NIT.
- 4) The bidder must have at least 07 (Seven) years or more experience of having successfully executing purchase orders for supply of CTs & PTs with same or higher Voltage grade with minimum quantity of 10 numbers of each item from the date of publication of the NIT.
- 5) The bidder must have to submit the Performance Certificate of the quoted items from any Govt. Organization / Semi Govt. Organization / PSU along with the Technical Bid in Qualifying Requirements (Part-II).
- 6) The bidder must have to submit the Type Test Reports of the quoted items along with the Technical Bid in Qualifying Requirements (Part-II).
- 7) Experience of having successfully completed job for supplying CTs & PTs with same or higher Voltage grade in any Govt. Organization / Semi Govt. Organization / PSU within last 07 (Seven) years ending 30th June, 2016 should be either of the following:
 - a) One completed supply order costing not less than the amount equal to 80% of the estimated cost i.e. Rs. 3,07,200/-
 - Or,
 - b) Two completed supply orders each costing not less than the amount equal to 50% of the estimated cost i.e. Rs. 1,92,000/-
 - Or,
 - c) Three completed supply orders each costing not less than the amount equal to 40% of the estimated cost i.e. Rs. 1,53,600/-.
- 8) The average annual financial turnover of the bidder during the last 03 (Three) years, ending 31st March of the previous financial year, should be at least 30% of the estimated cost i.e. Rs. 1,15,200/-.
- 9) The bidder must submit copies of relevant purchase order(s) & other documentary evidences as a proof of satisfactory completion of similar supply & delivery and to fulfill other qualifying requirements as mentioned above.

Legible photocopies of all the documents as stated below countersigned by the tenderer need to be submitted accordingly in a separate sealed envelope super-scribing '**Qualifying Requirements**', **Tender Notice No. with date, Due date of Opening** and '**Name of the Procurement**', otherwise the tender will be treated as invalid. Original copies of the documents are to be produced on demand.

- a) Credentials regarding Qualifying Requirements (e.g. Purchase Orders along with its Completion Certificates etc.),
- b) P&L Account and Balance Sheets for last 03 (Three) years (should be audited for Turnover above Rs. 01 (One) Crore and self certified P&L and B/S for others),
- c) PAN Card,
- d) CST / VAT Registration Certificate,
- e) CST / VAT Return (Latest),
- f) Professional Tax Registration Certificate,
- g) Professional Tax Payment Certificate (Latest),
- h) Manufacturer's License / Trade License.

Important Dates:

Sale of Tender Document:	From 18.07.2016 up to 28.07.2016 between 11:00 Hrs. and 14:30 Hrs.	
Last Date of Offer Submission:	03.08.2016 within 15:00 Hrs.	
Opening of Tender:	Part I & II	03.08.2016 at 15:15 Hrs.
	Part III	03.08.2016 or later duly intimated to the bidders.

Sale of Tender Document:

Tenders Document shall be obtained from Sr. Manager (M&C), STPS or his authorized representative against written application in duplicate on any working day except Saturday and holiday between 11:00 Hrs. and 14:30 Hrs. after deposit the cost against the Tender Document at Cash counter, S.T.P.S. by cash only. Tender paper must be sold by each of the applicants.

Opening of Tender:

- a) The tenders shall be opened in presence of representative of the prospective bidders, if available, at the time and date set for opening of tender as mentioned above. In case any extension has been given thereto on the extended tender opening date and time will be notified to all the prospective bidders who have purchased the Tender Documents. Authorized representatives (maximum two persons) of the prospective bidder may attend the opening.
- b) After opening the main cover, the envelope containing E.M.D. (Part-I) shall be opened first and if E.M.D. of requisite amount in proper mode is found the Q.R. (Part-II) will be opened.
- c) Price Bid (Part-III) of the prospective bidders who have qualified in both Part-I & Part-II will be considered only by the WBPDCCL for subsequent opening of Part-III on same or later date eliminating other participants.

Evaluation of Tender:

- a) Issuance of tender document to the participants will not qualify him automatically for the entire tender process.
- b) The WBPDCCL reserves the right to itself to accept any tender or reject any or all tenders or cancel / withdraw the invitation for tender without assigning any reason for such decision. Such decision by the WBPDCCL shall not be subject to question by any prospective bidder and the WBPDCCL shall bear no liability consequent upon such decision and the prospective bidders shall have no claim in this regard against the WBPDCCL.
- c) Evaluation by the WBPDCCL shall be based on the information and documentary evidence submitted by the prospective bidders in response to the tender documents. The requirements as stipulated in the tender notice and documents are the minimum and the WBPDCCL has the right to request for additional information. The WBPDCCL reserves the right to reject any tender, if in the opinion of the WBPDCCL the qualification data / documentary evidence submitted by the prospective bidders are incomplete or prospective bidders are found not qualified to satisfactorily perform the job. The WBPDCCL reserve the right to reject any tender if the prospective bidder is found to be disqualified by giving incorrect and / or false information.
- d) The WBPDCCL does not bind itself to accept the lowest tender and also reserves the right to split the procurement amongst more than one prospective bidder and also reserves the right to reject any or all tender or cancel the tender without assigning any reason whatsoever.
- e) Notwithstanding, anything stated above or elsewhere, the WBPDCCL reserves the right to assess the capability and capacity of the prospective bidders, should the circumstances warrant such assessment in the overall interest of the WBPDCCL.

Encl: 1) Annexure-A

Sd/-

(S. Maity)
General Manager
STPS, The WBPDCCL

ANNEXURE–A

TECHNICAL SPECIFICATION FOR 36 KV CTs & PTs

This section covers the design, manufacture assembly, testing at manufacturer's work before despatch, supply and delivery of single phase, 50Hz oil immersed, self cooled, hermetically sealed outdoor type 36KV current transformers & potential transformers.

STANDARDS:

The design, manufacture and testing of various equipments covered by this specification shall comply with the latest issue of following and other applicable standards except the value wherever specified shall be considered relevant.

IS:2705	Specification for current transformers.
IS:5621	Specification for Hollow porcelain bushing
IS:2099	Specification for Bushings.
IS:5561	Specification for Electric power connectors.
IS: 335	Specification for New Insulating oils
IS:4201	Application Guide for Current transformers.
IS:10601	Dimensions of terminals for high Voltage Switchgear and Control Gear.
IEC-60044-1	Instrument transformers
IS-3156	Specification for voltage transformers
IS-4146	Application Guide for voltage transformers.

Equipments and material conforming to alternative internationally recognised standard(s) which ensure(s) quality equal or better than the Indian standard(s) mentioned above should also be acceptable.

36KV CURRENT TRANSFORMERS:

- The 36 KV current transformers shall be single phase, oil immersed, self cooled, hermetically sealed, complete in all respect and conforming to the latest standards and modern practice of design and manufacturer.
- The cores shall be high grade non-ageing, laminated silicon steel of low hysteresis losses and high permeability to ensure accuracy at both normal and over current.
- The current transformers shall be hermetically sealed to eliminate breathing and prevent air and moisture from entering the tank. These shall be provided with oil level indicator/sight glass with marking of maximum, normal and minimum level and suitable pressure relieving devices capable of releasing abnormal internal pressure where ever necessary. Arrangement for oil filling/drain valve/plug/hole shall be sealed to avoid leakage/pilferage of oil. The arrangement provided shall be indicated in the tender.
- The current transformers core to be used for metering and instrumentation shall be of the accuracy class as specified.
- The current transformer cores to be used for protective relaying shall be of specified class of accuracy. The core shall be designed for minimum specified knee point voltages or maximum accuracy limit factor of 20 as the case may be.
- The rating of the secondary winding shall be as per the specification. The secondary terminals shall be brought out in weather proof secondary terminal box fitted with a hinged/bolted door on the side of current transformer for easy access and shall be provided with short circuiting arrangement.
- Class of accuracy short time thermal current etc as specified for all transformation ratios and min. knee point voltage and maximum secondary winding resistance shall correspond to the lowest ratio. The secondary terminal box shall be provided with necessary glands with removable gland plate for control cables. The secondary terminal box shall conform to IP-55 test
- Primary winding shall be made out of high conducting copper conductor. The current density for short circuit current as well conductivity for primary winding shall meet the requirement of IS:2705/1992 or its latest issue.

However, for primary winding Current density corresponding to the rated short time current shall not exceed 160 Amps./Sq.mm. Suitable insulated copper wire of electrolytic grade shall be used for secondary winding.

- The shape of external metal parts shall ensure that rain water runs off and there is no stagnation.
- The CTs shall be of robust design, tested quality and reliable in operation. Only pure high grade paper wound evenly under controlled conditions and impregnated with mineral oil under vacuum shall be used for the main insulation.
- Expansion chamber or suitable type of device for absorbing variation in volume of oil due to change in temperature of oil should be provided.

36KV POTENTIAL TRANSFORMERS:

- The 36KV Potential Transformers shall be oil immersed, self cooled, outdoor type hermetically sealed and shall be suitable for measuring/protection services. The potential transformer shall be suitable for outdoor installation with the protection from rain, dust & direct ray of Sun under the climatic conditions and shall conform to the Standards mentioned above. The 36KV P.T. shall be Single Phase type.
- The cores used shall be high grade non ageing laminated silicon steel having low hysteresis losses and high permeability. The reluctance of cores shall be as small as possible so as to reduce the ratio error and phase angle error in the P.T.
- The potential transformer shall be hermetically sealed to eliminate breathing & prevent air and moisture from entering the tank and method adopted for hermetically sealing be clearly stated in the offer.
- These shall be provided with oil level indicator/sight glass with marking of maximum, normal and minimum level and pressure reliving devise capable & releasing abnormal internal pressure.
- The primary & secondary windings shall be made out of copper. For load shading single phasing is adopted in the system. The offered PTs shall be suitable for working under such conditions.
- The Potential transformer shall be capable to withstand satisfactorily the electric test voltage corresponding to basic insulation level of 170 KV Peak for 36 KV PTs.

INSULATING OIL AND BUSHING FOR CTs/PTs:

The oil shall be EHV Grade transformer oil and conform to the requirements of latest issue of IS: 335. The Instrument Transformers shall be supplied duly filled in with EHV insulating oil and shall be hermetically sealed. The make, creepage distance and creepage factor and other bushing details be clearly stated in the GTPs. Pressure of nitrogen or any other inert gas used above the oil level to permit expansion or contraction of oil shall be stated separately.

GALVANISING AND PAINTING AND TANK DETAILS:

All ferrous parts of the Instrument Transformers exposed to atmosphere including tank and secondary terminal box shall be painted externally with one coat of primer and two coats of synthetic enamel paint of light grey shade No. 631. All the interior surfaces in contact with oil shall be painted with two coats of suitable heat resistant oil insoluble paint. Minimum thickness of sheet should be 3mm. Welded joints have to be minimised to avoid the possibility of oil leakage. In any case, welding in horizontal plane shall be avoided.

TERMINAL CONNECTORS:

The Instrument transformers shall be supplied with bimetallic terminal connectors for both end suitable for ACSR Dog conductor.

DRAWINGS AND MANUALS:

The following drawings of the equipments covered by this specification shall be furnished by the tenderer before manufacturing the CTs & PTs for necessary approval from the user department.

1. Outline general arrangement and sectional drawings showing all dimensions and weight of each item and foundation details.
2. Drawing showing inside details.
3. Diagram of connections showing details of primary and secondary windings.
4. Name /rating plate diagram.

INSTRUCTIONS MANUAL:

The successful tenderer shall have to supply 02 sets of operating and maintenance instructions manuals, along with the erection manual and requisite drawing of the equipment covered by this specification.

NAME /RATING PLATE:

All items of the equipment included in this specification shall be provided with rating plates as per relevant standards. Rating plate and terminal marking shall be as per relevant IS. Purchase order/TN reference shall also be given.

ACCEPTANCE AND ROUTINE TESTS:

Each CTs & PTs shall comply with and shall be subjected to all routine/acceptance tests prescribed in the relevant Indian Standard Specification.

Two sets (02) of certified copies of acceptance/routine test reports shall be submitted to the Purchaser for approval before dispatch.

The type tests are detailed as hereunder:

- (a) Short time current test.
- (b) Lightning impulse voltage withstand test.
- (c) Temperature rise test.
- (d) High voltage power frequency (wet) withstand test.

Routine tests to be conducted are as detailed under:-

- (a) Verification of terminal marking and polarity.
- (b) Power frequency dry withstand test on primary winding.
- (c) Power frequency dry withstand test on secondary winding.
- (d) Over voltage inter turn test.
- (e) Determination of error or other characteristics according to the requirement of the appropriate design of accuracy.

GUARANTEED TECHNICAL PARTICULARS:

Guaranteed technical particulars of the quoted item shall be furnished along with the tender. Tenders not accompanied by guaranteed technical particulars are liable to be rejected.

MATERIAL AND WORKMANSHIP:

All material used in the manufacture of aforesaid equipment shall be of best quality and capable of satisfactory operation under extreme climatic conditions. The workmanship shall be of the highest grade and the entire manufacture in accordance with the best modern engineering practice.

COMPLETNESS OF EQUIPMENT:

Any fittings, accessories or apparatus which may not have been specifically mentioned in this specification but which are usual or necessary for the equipment shall be deemed to have been included in this specification and in the scope of supply of tenderer. All equipments shall be completed in all respect.

LATENT DEFECTS ERRORS AND OMISSIONS:

Any material/equipments or parts thereof that develop defects, errors or omissions in the apparatus, not disclosed prior to the final acceptance by the purchaser but disclosed during the guarantee period shall be corrected promptly. The apparatus or parts thereof shall be replaced by the supplier free of charge and all expenses for the transportation, handling, installation of such replacement or any other incidental charges shall be borne by the supplier.

QUALITY ASSURANCE PLAN:

The tenderers are required to furnish the quality assurance plan along with their bid, which is to be followed by the supplier during manufacturing of the equipment. The list of raw material used along with their sub suppliers and type test reports of raw material & bought out items be furnished along with the offer.