ଓଡ଼ିଶା ବିଦ୍ୟୁତ୍ ଶକ୍ତି ସଞ୍ଚାରଣ ନିଗମ ଲି୫.
ODISHA POWER TRANSMISSION CORPORATION LIMITED
(A Govt. of Odisha Undertaking)
POWER TRAINING CENTRE, CHANDAKA
An ISO 9001:2015 Certified Training Centre
Tel: (0674) 2725966-5446 Fax: (0674) - 2725966, mail: ptc@optcl.co.in
CIN-U40102OR2004SGC007553

TD-PTC-30/2021(VOL.II)-18605 QCN- 18 /Dated 18.11.2026

TENDER CALL NOTICE

Sealed tenders are invited from **Authorized Dealers / Manufacturers / Reputed Suppliers** for the supply of the following materials for use at **PTC, Chandaka for seeting up a Transformer Testing lab .**

Item Details :

Sl. No.	Item Details	Quantity in No.	Unit Price in Rupees	Total Price in Rupees (Excluding GST)	Preferred Brand	Specification
1	True Three phase Transformer Turns Ratio Test kit	1	1,00,000	1,00,000.00	Motwane , Megger, Raytech,Compact, Vanguard,Metravi , Embuilt SCOPE, RISHAV.	As per the attached Tender Specification.
2	Three Phase Motorised Dimmerstat	1	2,50,000	2,50,000.00	Automatic Electric	-do-
3	Three phase Power Analyser for Transformer loss measurement	1	1,00,000	1,00,000.00	Fluke , Trustware, Prestige, Veer.	-do-
4	Auto-transformer with accessories	1	2,00,000	2,00,000.00		-do-
5	Transformer Winding Resistance Meter	1	1,50,000	1,50,000.00	Motwane,Megger Raytech;Vanguard; Omicron,Prestige	-do-
Total				**8,00,000.00**		
CGST @ 9%				**72,000.00**		
SGST @ 9%				**72,000.00**		
Grand Total Including GST				**9,44,000.00**		

Total Estimated price is Rs. 9,44,000/- In words (Rupees Nine Lakh Forty Four Thousand only) including GST.

General Manager (EL) PTC

i) **Copy to Notice Board.**

ii) **Copy to OPTCL Website.**

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TENDER SPECIFICATION FOR LIMITED TENDER CALL NOTICE NO: 18

1.	ANNEXURE-I	General Terms and Conditions Contract.
2.	ANNEXURE-II	Techno commercial Specification.
3.	ANNEXURE-III	Schedule of Quantity, Price Schedule.
4.	ANNEXURE-IV	Techno commercial Bid.
5.	ANNEXURE-V	CPBG format.
6.	Price of tender document	0
7.	COMMENCEMENT OF SALE OF TENDER PAPER	20.11.2026 (During office hours)
8.	LAST DATE OF SALE OF TENDER PAPER	14.12.2026(Up to 12:00 P.M.)
9.	LAST DATE & TIME OF RECEIPT OF TENDER PAPER	15.12.2026(Up to 02:00P.M.)
10.	DATE & TIME OF OPENING OF TECHNO-COMMERCIAL BID	15.12.2026at 04:00 P.M.

ANNEXURE-I

General Terms & Conditions:

The bidder must ensure that the bids are received in the specified website of the OPTCL within the date and time indicated in the Tender notice. Bids submitted by telex/telegram will not be accepted. No request from any bidder to the OPTCL to collect the Bids in physical form will be entertained by OPTCL.

1. **Quantity Variation:** The quantity mentioned in the quotation notice is subject to increase or decrease based on the actual requirement, as specified in the Purchase Order.
2. **Submission of Quotation:** Tenderers shall submit their quotations along with detailed terms and conditions for the supply of the specified materials. The Tenderers are required to submit the tender in two parts i.e. Part-I (Techno-commercial bid) and Part-II (Price Bid) are eligible to participate in the tender.
3. The **Techno-Commercial Evaluation Committee** will first assess the technical eligibility of the bids. The Technical Bid, failing which their bids shall be summarily/ out rightly rejected and will not be considered for further evaluation. Only those meeting all required technical specifications and eligibility criteria shall be considered for price evaluation.
4. **Price Evaluation:** The price bid shall be evaluated on the basis of the total quoted price for all items specified in the tender. Bidders shall quote prices for all items. Any bid containing incomplete or partial price quotations shall be treated as non-responsive and liable to rejection.
5. **Conditional Offer**: Conditional offer shall not be accepted.
6. **Revision of tender price by Bidders:** -After opening of tenders and within the validity of period, no reduction or enhancement in price will be entertained. If there is any change in price, the tender shall stand rejected and the EMD deposited shall be forfeited.

   After opening of price bid if the validity period is not sufficient to place purchase order, the tenderer may be asked by the purchaser to extend the validity period of the bid under the same terms and condition as per the original tender.

   However, the tenderers are free to change any or all conditions including price except delivery period of their bids at their own risk, if they are asked by the purchaser to extend the validity period of the bid prior to opening of price bid.
7. **Earnest Money Deposit (EMD):** An Earnest Money Deposit (EMD) equivalent to **1% of the estimated cost i.e Rs 9,440/-.** shall be deposited in favour of **DDO, HQRS, OPTCL, Bhubaneswar**, in the form of a DD, along with the quotation. The EMD shall be refunded to unsuccessful bidders after finalisation of the tender. In the case of the successful bidder, the EMD shall be refunded upon successful submission of the required Security Deposit.

8. **Deadline for Submission:** The sealed quotation must reach the office of the undersigned on or before **Dt. 15.12.2026** at **02:00 PM**.

9. **Opening of Quotations:** The quotations shall be opened on **Dt.15.12.2026** **at 04:00 PM** in the presence of the tenderers or their duly authorised representatives, if any.

10. **Validity of Offer:** The offer shall remain valid for a minimum period of **60 days from the date of opening of the quotation**.

11. Performance Security / Security Deposit

Submission of Performance Security: The successful L1 bidder, upon verification of the documents submitted and fulfilment of all applicable eligibility and contractual requirements, shall furnish Performance Security equivalent to 10% (ten percent) of the quoted contract value. In the case of eligible MSME/EPM rate holders, the Performance Security shall be 5% (five percent) of the quoted contract value, subject to the applicable rules, provisions of the tender document, and fulfilment of the prescribed eligibility conditions.

Mode of Submission: The Performance Security shall be furnished in any of the following forms, as permitted under the tender conditions and applicable rules:

a. An irrevocable Bank Guarantee issued by a Nationalized Bank in favour of Odisha Power Transmission Corporation Limited (OPTCL), Bhubaneswar, with provision for encashment at Bhubaneswar; or **b.** Demand Draft drawn in favour of OPTCL, Bhubaneswar; or **c.** Deduction from the bill amount, wherever such a mode is expressly permitted under the applicable tender conditions and rules.

Submission and Validity: The Security Deposit in the prescribed form shall be submitted to the **CGM (HRD), OPTCL, Janpath,** Bhubaneswar - 751022, during office hours. Where the Security Deposit is furnished in the form of a Bank Guarantee, it shall be submitted within 15 (fifteen) days from the date of issue of the Letter of Intent (LOI)/Work Order and execution of the Agreement, as applicable under the tender conditions.

The Bank Guarantee shall remain valid for the entire contract period, including any extended period, with an additional claim period of two (2) months beyond its expiry. The Bank Guarantee shall be accompanied by a confirmation letter from the issuing bank and shall contain an appropriate provision for encashment at Bhubaneswar. The Bank Guarantee shall be accepted only after the prescribed verification and confirmation formalities have been completed.

Extension of Validity: In the event of extension or continuation of the contract beyond the initial contract period, the Agency/Firm shall extend or revalidate the Bank Guarantee sufficiently in advance to cover the entire extended contract period, together with the stipulated additional claim period. Such extension or revalidation shall be made as and when required by OPTCL.

Refund of Security Deposit: The Security Deposit shall be refunded only after satisfactory execution and completion of the contractual obligations by the Agency/Firm, subject to adjustment or recovery of any dues,

claims, losses, damages, or other amounts recoverable by OPTCL under the contract and applicable rules.

No Interest: No interest shall be payable by OPTCL on the Performance Security/Security Deposit for the entire period for which the amount remains with OPTCL.

Recovery and Adjustment: If any claim or liability arises against the Agency/Firm under or in connection with the contract, OPTCL shall be entitled to recover the amount due by appropriating the whole or any part of the Security Deposit. If the Security Deposit is insufficient to meet the amount recoverable, the balance amount may be deducted from any sum due or which may subsequently become due to the Agency/Firm from OPTCL. Any remaining balance shall be payable by the Agency/Firm to OPTCL on demand.

Forfeiture of Security Deposit: In the event of any breach of the terms and conditions of the contract or failure to fulfil contractual obligations by the Agency/Firm, including non-fulfilment of obligations specified in the Work Order, Purchase Order, or applicable specifications, OPTCL shall be entitled to forfeit the whole or such part of the Security Deposit as may be permissible under the contract and applicable rules. In the event of termination of the contract on account of such breach, the Security Deposit shall be liable to forfeiture, without prejudice to any other rights or remedies available to OPTCL under the contract or applicable law. Any decision regarding forfeiture shall be taken by the competent authority in accordance with the contractual provisions and applicable law.

Breach of Contract: In the event of breach of any terms or conditions of the Agreement by the successful bidder/Agency, OPTCL shall be entitled to take appropriate contractual action, including recovery of dues, forfeiture of the Security Deposit, and termination or annulment of the Agreement, wherever permissible under the contract and applicable rules.

Bank Guarantee for Non-Fulfilment of Obligations: In the event of non-fulfilment of contractual obligations by the Agency/Firm, OPTCL shall be entitled to invoke and encash the Bank Guarantee, in whole or in part, in accordance with its terms and the applicable contractual provisions.

Submission of MSME Certificate: Bidders claiming the benefit of the reduced Performance Security applicable to eligible MSME/EPM rate holders shall submit a self-attested copy of the valid MSME registration certificate and any other supporting documents required under the tender conditions. The admissibility of such benefit shall be subject to verification and compliance with the applicable rules and eligibility criteria.

12. **Inspection And Testing**

The purchaser reserves the right to inspect and/or test the testing equipment's at any stage of manufacture, dispatch or after receipt at site to verify conformity with the tender specifications and relevant standards. The supplier shall extend all necessary facilities and cooperation for such inspection/testing without any additional cost to the purchaser.

Any material found defective, substandard or not conforming to the specified requirements during inspection or testing shall be rejected and the same shall be replaced by the supplier at

his own cost within the stipulated period, failing which action as deemed fit by the purchaser may be taken.

13. **Warranty/Guarantee:**

The bidder shall provide 12 (Twelve) months comprehensive OEM Guarantee for all items of Scheduled Quantity from the date of delivery. During Guarantee period the bidders should replace defective items without any financial liability to OPTCL.

In case the violation of the condition of Guarantee is not set right by the vendor, the Composite Bank Guarantee shall have to be extended beyond Fourteen months for which the vendor shall request the bank for the same.

The Supplier Guarantee that the Goods supplied under the Contract are new, unused, of the most recent or current models, and they incorporate all recent improvements in design and materials unless provided otherwise in the Contract and all the Services configured shall render trouble free function. The Supplier further Guarantee that all Goods supplied under this Contract shall have no defect, arising from design, materials, or workmanship or from any act or omission of the Supplier that may develop under normal use of the supplied Goods in the conditions prevailing in the country of final destination.

14. **Replacement of Defective Materials:** Any material found to be defective or not conforming to the prescribed specifications shall be replaced by the supplier immediately, at the supplier's own cost, without any additional financial liability to OPTCL.
15. **Delivery Location:** All materials shall be delivered to **PTC, Chandaka** within 45 days at the supplier's own cost, unless otherwise specified in the Purchase Order.
16. **Payment Terms:** 100% payment shall be made by **DDO, Headquarters, OPTCL**, upon receipt and satisfactory verification of the materials in good condition, subject to compliance with the applicable financial rules and submission of the required documents. The Bidder / Agency shall submit the bill to the GM (Elect), Power Training Centre in Triplicate.
17. **Compliance with Specifications:** The materials supplied shall strictly conform to the specifications and requirements stipulated in the quotation notice and Purchase Order. Quotations that do not comply with the prescribed specifications may be rejected.
18. **Firm and Final Prices:** The prices quoted by the tenderers shall be **firm and final**, with no escalation permitted during the validity of the offer or the execution of the Purchase Order.
19. **Force Majeure:**

    The supplier shall not be liable for any penalty for delay or for failure to perform the contract for reasons of force majeure such as acts of god, acts of the public enemy, acts of Govt., Fires, floods, epidemics, Quarantine restrictions, strikes, Freight. Embargo and provided that the supplier shall within Ten (10) days from the beginning of delay on such account notify

the purchaser in writing of the cause of delay. The purchaser shall verify the facts and grant such extension, if facts justify.

20. Price Reduction

i).If the supplier fails to deliver the materials within the delivery period as stipulated under Clause No.15 of this tender document or any extension granted thereto, the purchaser shall recover from the supplier price reduction for a sum of half percent (i.e. 0.5 percent) of the contract price for each calendar week or part thereof of limited to maximum of 5% of cost (exclusive of GST) of the contract value (exclusive of GST) .

iii).OPTCL shall recover the price reduction schedule from the bill of the Contractor.

iv). However, if the price reduction schedule remain un-recovered the same shall be recovered from the contract performance Bank Guarantee.

21. **Extension of time**:

If the delivery of equipment/material is delayed due to reasons beyond the control of the supplier, the supplier shall without delay well in advance give notice to the purchaser in writing of his claim for an extension of time. The purchaser on receipt of such notice may or may not agree to extend the contract delivery date as may be reasonable but without prejudice to other terms and conditions of the contract.

22. **Contacting the purchaser:** - No bidder shall contact the purchaser on any manner, relating to its bid, from the time of bid opening to the time, the contract is awarded. Any effort by a Bidder to influence the purchaser in the purchaser' s bid evaluation, bid comparison or contract award decisions may result in the rejection of the Bidder' s bid.

23. **Jurisdiction:** In the event of any dispute arising out of or in connection with the Purchase Order, the matter shall be subject to the exclusive jurisdiction of the competent courts at **Bhubaneswar, Odisha**

24. **Right to Reject:** The undersigned reserves the right to reject any or all quotations, either in whole or in part, without assigning any reason whatsoever, in accordance with the applicable rules and procedures.

General Manager (EL) PTC

iii) Copy to Notice Board.

iv) Copy to OPTCL Website.

ANNEXURE-II

GENERAL REQUIREMENTS APPLICABLE FOR ALL KITS

1. **Scope:** Testing of 3 Phase Distribution Transformers 25 kVA to 5 MVA, 11/0.433 kV to 33/11 kV as per IS 1180 (Level 1, 2, 3) & IS 2026.
2. **Standards:** All kits shall conform to latest IEC 61010-1, IEC 61326 for Safety and EMC, IP54 minimum for field use.
3. **Calibration:** NABL / NPL traceable calibration certificate, calibration date not older than 60 days from date of supply. Calibration validity - 1 Year.
4. **Documentation:** User Manual, Factory Test Report, Guarantee Card, Software CD, Test Leads, Hard Carrying Case with wheels.
5. **Training:** On-site demonstration and training for 1 day.

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1. THREE PHASE TRANSFORMER TURNS RATIO TEST KIT

- **Functional Requirement:**

i. Fully automatic, User programmable Sequence, pre-programmed standards.

ii. Measurement of Three phase transformer turns ratio, excitation current, HT & LT Voltages, Polarity, Percentage Deviation and Phase angle.

iii. The test results should have repeatability, consistency in laboratory and Field condition.

Technical Specification:

- **Display:** Graphic LCD with backlight, visible in bright sunlight, English menu
- **Test Voltage:** 55V AC @ 230V Auxillary supply.
  Accuracy: Class ± [1% of reading + 0.1mA] or better.
- **Max. Excitation current:** 0 to 200 mA
- **Accuracy of Excitation current:** ±(1% of reading +0.1mA) or better
- **Vector Group supported:** All 18 groups of Y-y, Y-d, D-y, D-d, Y-z, D-z - YNyn0, Dyn11 etc. with automatic detection.
- **Turns ratio range:** 0.8 to 2000
- **Auxillary supply:** 230V AC(+/-) 20%, 50Hz
- **Transformer capacity:** Up to 10MVA
- **Phase testing:** 3 phase, no clip changes

- **Terminals:** Standard load cell connectors(HT& LT)
- **Communication Interface:** RS-232 / USB Port for PC interface.
- **Data Seaving:** Store upto 2k test data in internal memory
- **Warranty:** Minimum one year.

2. THREE PHASE MOTORIZED DIMMERSTAT [VARIAC]

- **Type:** 3-phase, oil cooled, copper wound, enclosed type.
- **Input:** 415V, 3-Phase, 50Hz
- **Output:** 0-470V AC variable, line-to-line.
- **Current rating :** 60A
- **Winding:** Copper winding
- **Cooling medium:** Oil cooled.
- **Control:** Motorized operation with Local/Remote push button control and limit switches.
- **Protection:** Input MCCB, Overload relay, Emergency Stop, Zero start interlock, Digital Voltmeter & Ammeter on panel.

3. THREE PHASE POWER ANALYSER FOR TRANSFORMER LOSS MEASUREMENT

- **Application:** No-load loss, Load loss, Impedance voltage [%Z], Efficiency measurement as per IEEE C57.12.90.
- **System:** 1-Ph and 3-Ph, 3-Wire / 4-Wire, 2-wattmeter and 3-wattmeter method.
- **Current Input:** Direct 80A minimum or via external flexible CT inputs.
- **Voltage input:** minimum 600 V RMS phase-to-neutral; dynamic line-to-line range up to 1300 V; transient measurement capability preferably up to 6 kV peak.
- **Measurement modes:** 2-wattmeter and 3-wattmeter methods.
- **Measures**: True-RMS voltage/current, kW, kVA, kVAr, PF/DPF, frequency, active/reactive energy, voltage/current harmonics, THD, phase sequence, and voltage/current unbalance.
- Data logging with selectable 0.25 s averaging interval; SD/USB/LAN data export and PC reporting software
- Portable/table-top instrument with optional rack-mount kit.
- **CT/PT Ratio Setting:** Programmable
- 500 test data store capacity.

- Tamper proof calibration and long term stability.
- Calibration certificate.
- **Guarantee:** Minimum one year.

4. THREE PHASE FIXED AUTO-TRANSFORMER WITH TAPS

- **Type**: Oil cooled, Aluminium wound, Indoor, Step type.
- **Input:** 415V, 3-Phase, 50Hz.
- **Output Taps:** 600V-800V-1000V-1200V selectable via Different Points to be brought out in Out Put Current Rating: 84A continuous at all taps.
- **Cooling:** ONAN.
- **Protection:** Oil level gauge, Thermometer pocket, WTI, Drain valve.
- **Warranty:** Minimum 12 months.

5. THREE PHASE TRANSFORMER WINDING RESISTANCE TEST KIT

- **Functional Requirement:** The instrument should have
  - i. Automatic Resistance measurement of all tap positions in all three windings performed in a single test, automatic demagnetization.
  - ii. Kit can perform sequential as well as simultaneously measurement.
  - iii. The test results should have repeatability, consistency in laboratory and field condition.
  - iv. Suitable for measurement of Distribution transformer of 11/0.433kv to 33/11kv up to 5MVA Transformer from ground level.
- **Method of test:** IEEE.
- **Display:** LCD display, English menu input, LCD display with backlight, visible in bright sunlight.
- **Test Current**: Selectable steps (1A) minimum.
- **Winding resistance measurement:** 10μΩ to 500Ω(minimum)
- **Accuracy:** ±0.1% reading, ±0.1% range or better
- **Resolution:** 0.1 μΩ
- **Data Storage:** Large internal memory; (minimum 200 test result storage capacity)
- **Interface:** USB
- **Data Logging:** USB and results manager software

- **Auxiliary Supply: 230V AC ±20%, 50Hz.**
- **Environment: IEC 61326, IEC 61010, Operating Temp 0-50°C, Humidity 90% RH non-condensing.**
- **Protection/Control:** Over voltage and safety as per latest standard.
- **Test Lead/ Accessories:** 15m HT/LT leads with Kelvin clamps for 33kV bushings, ground level testing.Complete accessories, tools, drawing, documents should be provided for the smooth functioning of kit for 33KV level transformer Winding resistance measurement from ground. Further hard carrying case (which should be robust/ rugged enough) for ensuring proper safety of the kit during transportation shall have to be provided.
- **Safety:** Over-voltage, over-temperature protection, discharge indication.
- **Calibration Certificate:** Unit shall be duly calibrated before supply and the date of calibration shall not be older than two month from the date of supply of Kit.
- **Warranty:** Minimum one year.

General Manager (EL) PTC

ANNEXURE-III

A. SCHEDULE OF QAUNTITY

		ODISHA POWER TRANSMISSION CORPORATION LTD.	
		NOTICE INVITING TENDER NO.	
		NAME OF THE WORK: Supply of Materials for Transformer Testing Lab at Power Training Centre, Chandaka	
	Name of the Bidder		
	Bid Proposal No./Dated		
Sl. No	Equipment Name	Unit	Quantity
1	True Three phase Transformer Turns Ratio Test kit	No	1
2	Three Phase Motorised Dimmerstat	No	1
3	Power Analyser	No	1
4	Auto-transformer with accessories	No	1
5	Transformer Winding Resistance Meter	No	1

B. PRICE SCHEDULE

		ODISHA POWER TRANSMISSION CORPORATION LTD.			
		NOTICE INVITING TENDER NO.			
		NAME OF THE WORK: Supply of Materials for Transformer Testing Lab at Power Training Centre, Chandaka			
	Name of the Bidder				
	Bid Proposal No./Dated				
	Bidder's Response				
Sl. No	Equipment Name	Unit	Quantity	Unit Price in Rupees	Total Price in Rupees (Excluding GST)
1	True Three phase Transformer Turns Ratio Test kit	No	1		
2	Three Phase Motorised Dimmerstat	No	1		
3	Power Analyser	No	1		
4	Auto-transformer with accessories	No	1		
5	Transformer Winding Resistance Meter	No	1		
6	Sub Total				
7	GST				
8	**Grand Total**				

(Rupees .....)Only

Signature of Bidder with Official Seal

C. TECHNICAL DEVIATION SHEET

Bidder's Name & Address

To,

GM (Ele)

Power Training Centre, Chandaka

OPTCL,Bhubaneswar.

Ref.: 1.Tender No:.....

Sub: Technical Deviation Sheet.

Dear Sirs,

The following are the Technical Deviations and exceptions from the specifications and documents for the subject package/works. These deviations are exhaustive, except for these deviations, the entire package/works shall be performed as per your specifications and documents.

Sl No	Equipment Name	As specified in the Technical Specification	Technical deviations , if any	Remarks

Note: 1. Continuation sheets, of like size and format, may be used as per Bidder's requirements and annexed to this Schedule.

2. The deviations, if any, shall be brought out separately for each of the equipment/Materials/works.

3. Deviations mentioned other than the above shall constitute Nil/No deviation.

Date:

Place:

Signature of Bidder with Official Seal

(This form shall be duly filled-up, signed by the bidder)

D. COMMERCIAL DEVIATION SHEET

Bidder's Name & Address

To,

GM (Ele)

Power Training Centre, Chandaka

OPTCL,Bhubaneswar.

Ref.: 1.Tender No:.....

Sub: Commercial Deviation Sheet.

Dear Sirs,

We hereby undertake to execute the work without any deviation to the Commercial terms and conditions of the Package/Works contained in the tender specifications.

Sl No	Equipment Name	As specified in the Technocommercial Specification	Commercial deviations , if any	Remarks

Note: 1. Continuation sheets, of like size and format, may be used as per Bidder's requirements and annexed to this Schedule.

2. The deviations, if any, shall be brought out separately for each of the equipment/Materials/works.

3. Deviations mentioned other than the above shall constitute Nil/No deviation.

Date:

Place:

Signature of Bidder with Official Seal

(This form shall be duly filled-up, signed by the bidder)

ANNEXURE-IV

		ODISHA POWER TRANSMISSION CORPORATION LTD.
		NOTICE INVITING TENDER NO.
		NAME OF THE WORK: Supply of Materials for Transformer Testing Lab at Power Training Centre, Chandaka
	Name of the Bidder	
	Bid Proposal No./Dated	
	TECHNICAL CRITERIA	Bidder's Response
1	THREE PHASE TRANSFORMER TURNS RATIO TEST KIT	
	• Functional Requirement: i. Fully automatic, User programmable Sequence, pre-programmed standards. ii. Measurement of Three phase transformer turns ratio, excitation current, HT & LT Voltages, Polarity, Percentage Deviation and Phase angle. iii. The test results should have repeatability, consistency in laboratory and Field condition. Technical Specification: • Display: Graphic LCD with backlight, visible in bright sunlight, English menu • Test Voltage: 55V AC @ 230V Auxillary supply. Accuracy: Class ± [1% of reading + 0.1mA] or better. • Max. Excitation current: 0 to 200 mA • Accuracy of Excitation current: ±(1% of reading +0.1mA) or better • Vector Group supported: All 18 groups of Y-y, Y-d, D-y, D-d, Y-z, D-z - YNyn0, Dyn11 etc. with automatic detection. • Turns ratio range: 0.8 to 2000 • Auxillary supply: 230V AC(+/-) 20%, 50Hz • Transformer capacity: Up to 10MVA • Phase testing: 3 phase, no clip changes • Terminals: Standard load cell connectors(HT& LT) • Communication Interface: RS-232 / USB Port for PC interface. • Data Seaving: Store upto 2k test data in internal memory • Warranty: Minimum one year.	
2	THREE PHASE MOTORIZED DIMMERSTAT [VARIAC]	
	• Type: 3-phase, oil cooled, copper wound, enclosed type. • Input: 415V, 3-Phase, 50Hz • Output: 0-470V AC variable, line-to-line. • Current rating : 60A • Winding: Copper winding • Cooling medium: Oil cooled. • Control: Motorized operation with Local/Remote push button control and limit switches. • Protection: Input MCCB, Overload relay, Emergency Stop, Zero start interlock, Digital Voltmeter & Ammeter on panel. • Warranty: Minimum one year.	

3	**THREE PHASE POWER ANALYSER FOR TRANSFORMER LOSS MEASUREMENT**	
	• Application: No-load loss, Load loss, Impedance voltage [%Z], Efficiency measurement as per IEEE C57.12.90. • System: 1-Ph and 3-Ph, 3-Wire / 4-Wire, 2-wattmeter and 3-wattmeter method. • Current Input: Direct 80A minimum or via external flexible CT inputs. • Voltage input: minimum 600 V RMS phase-to-neutral; dynamic line-to-line range up to 1300 V; transient measurement capability preferably up to 6 kV peak. • Measurement modes: 2-wattmeter and 3-wattmeter methods. • Measures: True-RMS voltage/current, kW, kVA, kVAr, PF/DPF, frequency, active/reactive energy, voltage/current harmonics, THD, phase sequence, and voltage/current unbalance. • Data logging with selectable 0.25 s averaging interval; SD/USB/LAN data export and PC reporting software • Portable/table-top instrument with optional rack-mount kit. • CT/PT Ratio Setting: Programmable • 500 test data store capacity. • Tamper proof calibration and long term stability. • Calibration certificate. • Guarantee: Minimum one year.	
4	**THREE PHASE FIXED AUTO-TRANSFORMER WITH TAPS**	
	• Type: Oil cooled, Aluminium wound, Indoor, Step type. • Input: 415V, 3-Phase, 50Hz. • Output Taps: 600V-800V-1000V-1200V selectable via Different Points to be brought out in Out Put Current Rating: 84A continuous at all taps. • Cooling: ONAN. • Protection: Oil level gauge, Thermometer pocket, WTI, Drain valve. • Warranty: Minimum 12 months.	

5	THREE PHASE TRANSFORMER WINDING RESISTANCE TEST KIT	
	• Functional Requirement: The instrument should have i. Automatic Resistance measurement of all tap positions in all three windings performed in a single test, automatic demagnetization. ii. Kit can perform sequential as well as simultaneously measurement. iii. The test results should have repeatability, consistency in laboratory and field condition. iv. Suitable for measurement of Distribution transformer of 11/0.433kv to 33/11kv up to 5MVA Transformer from ground level. • Method of test: IEEE. • Display: LCD display, English menu input, LCD display with backlight, visible in bright sunlight. • Test Current: Selectable steps (1A) minimum. • Winding resistance measurement: 10μΩ to 500Ω(minimum) • Accuracy: ±0.1% reading, ±0.1% range or better • Resolution: 0.1 μΩ • Data Storage: Large internal memory; (minimum 200 test result storage capacity) • Interface: USB • Data Logging: USB and results manager software • Auxiliary Supply: 230V AC ±20%, 50Hz. • Environment: IEC 61326, IEC 61010, Operating Temp 0-50°C, Humidity 90% RH non-condensing. • Protection/Control: Over voltage and safety as per latest standard. • Test Lead/ Accessories: 15m HT/LT leads with Kelvin clamps for 33kV bushings, ground level testing.Complete accessories, tools, drawing, documents should be provided for the smooth functioning of kit for 33KV level transformer Winding resistance measurement from ground. Further hard carrying case (which should be robust/ rugged enough) for ensuring proper safety of the kit during transportation shall have to be provided. • Safety: Over-voltage, over-temperature protection, discharge indication. • Calibration Certificate: Unit shall be duly calibrated before supply and the date of calibration shall not be older than two month from the date of supply of Kit. • Warranty: Minimum one year.	

Signature of Bidder with Official Seal

ANNEXURE –V

PROFORMA OF BANK GUARANTEE FOR CONTRACT PERFORMANCE (CPBG)

(To be stamped in accordance with Stamp Act and the Non-Judicial stamp paper of appropriate value should be in the name of the Issuing Bank.)

Ref No:- .....

Bank Guarantee No. .....

Date: .....

BG Amount:.....

Validity Period:.....

Claim Period:.....

To,

CGM (HRD)

Tech Tower,

OPTCL, Bhubaneswar.

This Guarantee Bond is executed this..... day of ..... by us the ..... Bank at ..... , P.O..... , Dist....., State..... and Code No.....

Whereas the ODISHA POWER TRANSMISSION CORPORATION Limited, Janpath, Buhubaneswar, a company constituted under the Companies Act-1956 (hereinafter called OPTCL) has issued Letter of Award (LOA) No..... Dated..... for the purpose of ..... work under Package No .....of Phase-I .

(herein after called "the Agreement") to M/s/Shri ..... , Address ... (herein after

called the "Contractor") for supply **Materials for Transformer Testing Lab at Power Training Centre, Chandaka** and whereas OPTCL has agreed (1) to exempt demand of security deposit under the terms and conditions of the LOA (2) to release 100% payment of the cost of the Contract Price and (3) to exempt the Contractor from Performance Guarantee on furnishing by the Contractor to OPTCL a Contract Performance Bank Guarantee (CPBG) of the value of 10% of the Contract Price of the

said Agreement.

1. Now therefore, in consideration of OPTCL having agreed to exempt the Contractor from the demand under the terms and conditions of LOA No. _____ dated _____ for Supply **Materials for Transformer Testing Lab at Power Training Centre, Chandaka** and for the due fulfillment by the said Contractor of the terms and conditions contained in the said agreement, on production of a Bank Guarantee for Rs._____ (Rupees____) only, we the bank _____ [Indicate bank Name , Address & Code] (hereinafter referred to as "the Bank") at the request of M/s/Shri _____ contractor do hereby undertake to pay to OPTCL, an amount not exceeding Rs._____(Rupees _____)

   only against any loss or damage caused to or suffered or would be caused to or suffered by OPTCL by reason of any breach by the said contractor of any of the terms or conditions contained in the said agreement.

2. We, the _____ Bank [indicate the name of the Bank, Address & Code] do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from OPTCL stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by OPTCL by reason of any breach by the said contractor of any of the terms or conditions contained in the said agreement or by reasons of any breach by the said Contractor's failure to perform the said agreement. Any such demand made on the bank shall be conclusive as regards the amount due and payable by the bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. ___ _____(In Words).

3. We, the..... Bank also undertake to pay to OPTCL any money so demanded not withstanding any dispute or disputes raised by the Contractor in any suit or proceeding instituted / pending before any court or tribunal relating thereto, our liability under this present being absolute and irrevocable. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the Contractor shall have no claim against us for making such payment.

4. We, the _____ Bank further agree that the guarantee herein contained shall remain in full force and effect during the aforesaid period of ____days and it shall continue to be so enforceable till all the dues of OPTCL under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till OPTCL certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said contractor and accordingly discharge this guarantee and the said CPBG will not be revoked by us during the validity of the guarantee period.

   Unless a demand or claim under this guarantee is made on us or our Branch Office at Bhubaneswar <Mention Name, Address & Code of the Branch Office at Bhubaneswar of issuing Bank> in writing on or before ..... (Date), we shall be discharged from all liability under this guarantee thereafter.

5. We, the _____Bank [indicate the name of the Bank, Address & Code] further agree with the Board that OPTCL shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Bid or to extend time or performance by the said contractor(s) from time to time or to postpone for any time or from time to time only of the powers exercisable by OPTCL against the said contractor(s) and to forbear or enforce any of the terms and conditions relating to the said Bid and we shall not be relieved from our liability by reason of any such variation postponement or extension being granted to the said contractor(s) or for any forbearance, act or omission on the part of OPTCL or any indulgence by OPTCL to the said contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

6. This guarantee will not be discharged due to the change in the name, style or constitution of the Bank of the contractor(s)

   We, the _____Bank [indicate the name of the bank, Address & Code] lastly undertake not to revoke this guarantee during its currency except with the previous consent of OPTCL in writing.

7. We, the _____Bank (Name, Address & Code) further agree that this guarantee shall also be invokable at our place of business at **Bhubaneswar** (indicate Name, Address & Code of the Branch at Bhubaneswar) in the State of Odisha. **"Not withstanding anything contained herein"**

   a) Our liability under the bank guarantee shall not exceed Rs.----------(in words Rupees
   ---
)
   only.

   b) This Bank guarantee shall be valid up to ---------- --.

   c) We or our Branch at Bhubaneswar <Mention Name, Address & Code .....> shall be liable to pay guaranteed amount or any part thereof under this guarantee only if you serve upon us at ------- Branch of Bhubaneswar a
   written claim or demand on or before.....,

   The Bank Guarantee is issued in paper form and Advice transmitted through SFMS with required details to the beneficiary's advising bank .

   Dated, the _____Day of _____

For _____[Indicate name of Bank]

Signature.....
Full Name.....
Designation.....

Power Of Attorney.....
Dated.....

Seal of the Bank.....

WITNESS: (SIGNATURE WITH NAME AND ADDRESS)

1. Signature.....

   Full Name.....

2. Signature.....

   Full Name.....

N.B.:

1. Name of the Contractor.: .....
2. BG No & Date :.....
3. Amount (In Rs.):.....
4. Validity up to :.....
5. LOA No.....
6. Package No.....
7. Name, Address & Code of Issuing Bank:.....
8. Name, Address & Code Bhubaneswar Branch of the Issuing Bank:.....
9. The Bank Guarantee shall be accepted after getting SFMS advice as per details below.