Short term E-Tender Notice

POWER TRANSMISSION CORPORATION OF UTTARAKHAND LTD.
(A Govt. of Uttarakhand Enterprise)
CHIEF ENGINEER, OPERATION & MAINTENANCE
GARHWAL ZONE, PTCUL
26 - CIVIL LINES, ROORKEE – 247667

E-Tender for **"Procurement, Installation, Testing & Commissioning of 33 KV CT at 132 KV Substation Manglore" against E-Tender specification No. CE/GZR-03/2026-27**.

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M/s / Shri _____

Sr. No.	DESCRIPTION	
1.	Tender No.	**CE/GZR-03/2026-27**
2.	Name of Work	Procurement, Installation, Testing & Commissioning of 33 KV CT at 132 KV Substation Manglore
3.	Completion Time	06 Months
4.	Tender issuing office	Office of Chief Engineer (O&M) Garhwal Zone, Power Transmission Corporation of Uttarakhand Ltd. " 26-Civil Lines, Roorkee-247667
5.	Tender Fees	Rs. 5,000.00+ 900.00 (GST@18%) =Rs**. 5900.00** (Non refundable)
6.	EMD/Bid Security	**Rs. 1,50,000.00**
7.	Last date of Submission of Bid	**07.05.2026**
8.	Last Date and Time of Opening of Bid	**08.05.2026**
9.	Address & Place of Submission of Bid supporting documents.	Chief Engineer (O&M), Garhwal Zone, PTCUL, 26-Civil Lines Roorkee-247667.
10.	Type of Tender	**Short term open tender**
11.	Contact & Telephone No. of the Tender issuing office	Phone No.:- 01332-272256
12.	E-mail address of the tender issuing office	ce_oandmg@ptcul.org

(CHIEF ENGINEER (O&M)
GARHWAL ZONE,
ROORKEE

Pre, Technical and Financial Qualifying Requirement/Criteria

Scope of Work:-

Procurement, Installation, Testing & Commissioning of 33 KV CT at 132 KV Substation Manglore.

PRE QUALIFYING CRITERIA:-

The tenders/bidders must have to visit site of work & have to submit site visit certificate issued by concerned Executive Engineer(O&M)/Superintending Engineer (O&M) along with technical bid, failing which the bid of the tender may be rejected summarily.

TECHNICAL CRITERIA

1. The Tenderers/bidders should have adequate experience of having successfully completed procurement, installation, testing & commissioning of current transformer or any other electrical equipment at 33 KV or above voltage Substation during last 07 years of any State Transmission Utility (STU), Central Transmission Utility (CTU), Government Power Utility, PSU in which applications are invited should be either of the following:
   a. Three similar completed works costing not less than the amount equal to Rs. 17.84 Lakh.

   Or

   b. Two similar completed works costing not less than the amount equal to Rs. 22.30 Lakh.

   Or

   c. One similar completed work costing not less than the amount equal to Rs. 35.68 Lakh .
2. The Tenderer should furnish the details of their experience and statement of past works in the form "Details of orders executed during last five years" annexed. Photostat copies of order and performance reports of these items from various State Electricity Boards/other Govt. Departments also be given.
3. Experience certificate should be issued by an officer not below the rank of Executive Engineer mentioning nature of work, Agreement No., Amount of work, Scheduled time of completion of work and Actual time of completion etc.
4. Electrical "A" Class license Certificate valid for Uttarakhand and validity of the registration should be furnished along with the technical bid.

FINANCIAL CRITERIA

1. **Minimum Average Annual Turnover (MAAT):-** The minimum annual average turnover of the tenderer for best three years (36 months) out of last five financial years should not be less than **Rs. 78.93 Lakh.**

2. For Financial Qualification Criteria, Joint Venture Partners shall jointly/collectively meet 100% of Financial Qualification Requirement (FQR) of the respective Tender.
   Note: The Balance sheet and all other financial documents attested/certified by CAs to substantiate fulfillment of FQR should be within UDIN failing which tender will be summarily rejected without any further reference.
3. A copy of PAN of the firm and all its partners.
4. A copy of GST Registration.
5. A copy of EPF Registration
6. Solvency certificate from Bank (20% of bid value) should be submitted

AE
132 KV S/S Manglore

Executive Engineer
220 KV O&M Division, Roorkee

Superintending Engineer
Operation & Maintenance Circle
PTCUL 26, Civil Lines
ROORKEE-247667

Technical Specification & GTP of Current Transformers

1.0 General

1.1 The current transformers and accessories shall conform to the latest version of the standards specified below except to the extent explicitly modified in the specifications and shall be in accordance with requirements.
Current transformers IEC: 44-1 (or IS: 2705).

1.2 The instrument transformers shall be complete with its terminal box.

1.3 The instrument transformer tank along with top metallic shall be hot dip galvanized.

1.4 The instrument transformers shall be designed for use in geographic and meteorological conditions.

2.0 CONSTRUCTION FEATURES:

The features and constructional details of instrument transformers shall be in accordance with requirements stipulated hereunder:

2.1 Bushing/Insulators:

a) Instrument transformers shall be of 36kV class, oil filled, with shedded porcelain/composite bushing/Insulators suitable for outdoor service and upright mounting on steel structure.

b) Bushing/Insulators shall conform to requirements. The bushing/insulator for CT shall be one piece without any metallic flange joint.

c) Bushing shall be provided with oil filling and drain plugs, oil sight glass of CT. The bushing/insulator of instrument transformer shall have cantilever strength of not less than 350 kg for 36kV Instrument transformers respectively.

d) Instrument transformers shall be hermetically sealed units. Bidder/Manufacturer shall furnish details of the arrangements made for the sealing of instrument transformers alongwith the bid.
Bidder/Manufacturer shall also furnish the details of site test to check the effectiveness of hermetic sealing for approval.

e) Polarity marks shall indelibly be marked on each instrument transformer and at the lead terminals at the associated terminal block.

2.2 Insulating Oil:

a) Insulating oil to be used for instrument transformers shall be of EHV grade and shall conform to IS: 335 (required for the first filling).

2.3 Name Plate:

Name plate shall conform to the requirements of IEC incorporating the year of manufacture. The rated current, extended current rating of current transformers shall be clearly indicated on the name plate. The rated thermal current in case of CT shall also be marked on the name plate.

3.0 CURRENT TRANSFORMERS:

a) Current transformers shall have single primary either ring type, or hair pin type and suitably designed for bringing out the secondary terminals in a weather proof (IP-55) terminal box at the bottom. These secondary terminals shall be terminated to stud type non disconnecting terminal blocks inside the terminal box. In case "Bar primary" inverted type current transformers are offered the manufacturer will meet following additional requirements:

i) The secondary's shall be totally encased in metallic shielding providing a uniform equipotential surface for even electric field distribution.

ii) The lowest part of the insulation assembly shall be properly secured to avoid any risk of damage due to transportation stresses.

iii) The upper part of insulating assembly resting on primary bar shall be properly secured to avoid any damage during transportation due to relative movement between insulating assembly & top dome.

Superintending Engineer
Operation & Maintenance Circle
PTCUL 26, Civil Lines
ROORKEE-247667

Assistant Engineer
132 K V S/S Manglore
PTCUL

Executive Engineer
220 KV O&M Division, Roorkee

iv) Nitrogen if used for hermetic sealing (in case of live tank design should not come in direct contact with oil)

v) Bidder/Manufacturer shall recommend whether any special storage facility is required for spare CT.

b) Different ratios specified shall be achieved by secondary taps only and primary reconnection shall not be accepted.

c) Core lamination shall be of cold rolled gain oriented silicon steel or other equivalent alloys. The cores used for protection shall produce undistorted secondary current under transient condition at all ratio with specified CT parameters.

d) The expansion chamber at the top of the porcelain insulators should be suitable for expansion of oil.

e) Facilities shall be provided at terminal blocks in the marshalling box for star delta formation, short circuiting and grounding of CT secondary terminals.

f) Current transformer's guaranteed burdens and accuracy class are to be intended as simultaneous for all cores.

g) For 36kV current transformer, characteristics shall be such as to provide satisfactory performance of burden ranging from 25% to 100% of rated burden over a range of 10% to 100% of rated current in case of metering CTs and up to the accuracy limit factor /knee point voltage in case of relaying CTs.

h) The current transformer shall be suitable for horizontal transportation. It shall be ensured that the CT is able to withstand all the stresses imposed on it while transporting and there shall be no damage in transit. The Contractor shall submit the details of packing design to the Purchaser for review.

i) For 36kV CTs the instruments security factor at all ratios shall be less than five (5) for metering core. If any auxiliary CTs / reactor are used in the current transformers then all parameters specified shall have to be met treating auxiliary CTs as an integral part of the current transformer. The auxiliary CTs / reactor shall preferably be inbuilt construction of the CTs. In case these are to be mounted separately these shall be mounted in the central marshalling box suitably wired upto the terminal blocks.

j) The wiring diagram plate for the interconnections of three single phase CTs shall be provided inside the marshalling box.

k) The CT shall be designed as to achieve the minimum risks of explosion in service. Bidder/Manufacturer shall bring out in his offer, the measures taken to achieve this.

4.0 TESTS:

4.1 In accordance with the requirements, Current Transformers should have been type tested and shall be subjected to routine tests in accordance with IEC: 44-1/IS:2705 and IEC: 186/IS:3156 respectively.

4.2 The test report of the type tests and following additional type test shall be also be submitted for the Purchaser's review.

a) **Current Transformers:**

i) Radio interference test

ii) Seismic withstand test

Assistant Engineer
132 K V S/S Manglore
PTCUL

Executive Engineer
220 KV O&M Division, Roorkee

Superintending Engineer
Operation & Maintenance Circle
PTCUL 26, Civil Lines
ROORKEE-247667

iii) Thermal stability test, i.e. application of rated voltage and rated extended thermal current simultaneously by synthetic test circuit.

iv) Thermal co-efficient test i.e measurement of tan delta as a function of temperature (at ambient and between 80^0 C & 90^0 C) and voltage (at 0.3, 0.7, 1.0 and 1.1 Um/$\sqrt{3}$).

v) The current transformer shall be subjected to Fast Transient test by any one of the following two methods given below to assess the CT performance in service to withstand the high frequency over voltage generated due to closing & opening operation of isolators. Alternatively, method as per IEC: 44-1 may be followed:

b) **Current Transformers:**

Routine Tests:

i) Measurement of Capacitance.
ii) High voltage power frequency withstand test on Secondary winding.
iii) Over-voltage inter turn test (as per BS-3938).
iv) Oil leakage test.
v) Measurement of tan delta at 0.3, 0.7, 1.0, and 1.1 Um/$\sqrt{3}$.
vi) Measurement of partial discharge shall be carried out as per IEC.

Dissolved gas analysis to be carried out at the time of commissioning. CTs must have adequate provision for taking oil samples from the bottom of the CT without exposure to atmosphere. Bidder/Manufacturer shall recommend the frequency at which oil samples should be taken and norms for various gases in oil after being in operation for different durations. Bidder/Manufacturer should also indicate the total quantity of oil which can be withdrawn from CT for gas analysis before refilling or further treatment of CT becomes necessary.

5.1 Technical Parameters for Current Transformers:

S.No	Details	Unit	33 KV system
1	Nominal/rated voltage	KV	33
2	Highest system voltage	KV	36
3	No. of cores	Nos.	3
4	Rated primary current	A	800
5	Rated Secondary Current	A	1
6	Rated Burden	VA	15
7	Creepage	mm	900
8	BIL	KVp	170
9	Class of Insulation	-	A
10 (a)	Protection		
	Bus-differential	A	800/400/1
	Other	A	As required/1
10(b)	Metering	A	As required/1
11	Accuracy Class	-	0.2s
12	Rated fault current and duration	KA	25 (3 Sec)
13	Rated dynamic short circuit current	KAp	62.5
14	Lightning (full wave) impulse withstand voltage (1.2/50 micro sec.)		
	- between line terminal and ground	KVp	170
15	One minute power frequency withstand voltage:		
	-Between line terminal and ground	KV_{rms}	70
16	One minute power frequency withstand voltage of	KV	3

Assistant Engineer
132 K V S/S Manglore
PTCUL

Executive Engineer
220 KV O&M Division, Roorkee

Superintending Engineer
Operation & Maintenance C
PTCUL 26, Civil Lines
ROORKEE-247667

	secondary winding		
17	Minimum corona extinction voltage	KV_{rms}	-
18	Maximum radio interference voltage for frequency between 0.5 to 2 MHz	micro – volt	-
19	Maximum partial discharge level	pC	10
20	Cantilever strength	Kg	350

6.0 Inspection/Factory Tests of Equipment

6.1 An indicative list of test is given below. Contractor shall perform any additional test based on specialties of the items as per the field Q.P/Instructions of the equipment Supplier or Purchaser without any extra cost to the Purchaser. The Contractor shall arrange all instruments required for conducting these tests along calibration certificates and shall furnish the list of instruments to the Purchaser for approval.

6.2 **(a)** Insulation Resistance Test for primary and secondary.
(b) Polarity test.
(c) Ratio identification test-checking of all ratios on all cores by primary injection of current.
(d) Dielectric test of oil (wherever applicable)
(e) Magnetizing Characteristics test.
(f) Tan delta and capacitance measurement
(g) Secondary winding resistance measurement.

Assistant Engineer
132 K V S/S Manglore
PTCUL

Executive Engineer
220 KV O&M Division, Roorkee

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Operation & Maintenance Circle
PTCUL 26, Civil Lines
ROORKEE-247667