

By Regd., Post Ack., Due

In duplicate

TRANSMISSION CORPORATION OF TELANGANA LIMITED
(TIN NO. 36270120612)

From:
The Chief Engineer,
Transmission & LI
Vidyut Soudha, TSTRANSCO,
Hyderabad – 500 082.

To
M/s Siemens Ltd.,
Sathak Centre No.4,
MG Road, Nungambakkam,
P.O.Box.33 23, Chennai - 34 Fax:
044 - 28334011
Ph: 044 - 28334000

PO.No. 34-PMM/2014/CE/Trans-LI/PMM12-202/2013/420kV CVTs/D.No.27, Dt.:04/09/2014.

Sirs,

Sub: Tender No.PMM12-202/2013 for procurement of 31 Nos.420 KV Capacitor Voltage Transformers - Detailed Purchase Order Issued - Reg.

- Ref: 1. Specification No.PMM12-202/2014.
2. Your offer on e-platform.
3. LOI No. CE/LI/399/P&MM12-202/2013/D.No.92/2014, dated 21/05/2014.
4. Lr. No. APTRANSCO/CE-Construction/D. No. 38 dated 18/07/2014 of the Chief Engineer/Construction, APTRANSCO seeking consent for placing of separate order from TS Transco
5. Your Lr. No.ETS PD/HP20131747/RBA dated 11/08/2014

* * *

Please refer to the Letter of Intent issued by United APTRANSCO vide reference (3) cited, for supply of 100 Nos. 420 kV Capacitor Voltage Transformers (CVTs) at various sites/stores of APTRANSCO and your acceptance of the Letter of Intent.

Consequent to incorporation of TRANSMISSION CORPORATION OF TELANGANA LIMITED (herein after called the 'TSTRANSCO'), this purchase order is issued in confirmation of Letter of Intent issued under reference 3rd cited above and your subsequent acceptance vide letter cited at reference (5) for supply of equipment to TSTRANSCO at the same rates and terms and conditions indicated in the Letter of Intent cited at reference (3).

I, acting for and on behalf of and by the order and direction of TRANSMISSION CORPORATION OF TELANGANA LIMITED accept the prices offered by you against Specification No.PMM12-202/2013 read with subsequent correspondence for supply of equipment detailed in clause (2) below, with the terms and conditions as per the specification No.PMM12-202/2013.

SCOPE OF CONTRACT

This contract relates to the supply of the equipment detailed in clause (2) below and covers design, manufacture and acceptance testing before dispatch and delivery freight on road (F.O.R) destination/ Stores/site as detailed in this order

2. SCHEDULE OF EQUIPMENT & PRICES:

- (a) 420 kV Capacitor Voltage Transformers conforming to IEC 60044-5 / IS3156-4, complete with Single/Double ACSR Moose conductor and as per Technical specification.

Sl. No.	Item	Amount in (Rs.)
1	Ex-works price	235000.00
2	Packing forwarding	0.00
3	Excise Duty @ 10% on Ex-Works	23500.00
4	Cess on ED @ 3% on ED	705.00
5	Freight	3100.00
6	Insurance	300.00
7	CST @ 2% on (Ex-Works + ED + Cess)	5184.10
8	Unit landed cost:	267789.10
9	Quantity	31 Nos.
10	Total:	83,01,462.10
	Say:	83,01,462.00
(Rupees Eighty Three Lakhs One thousand Four hundred and Sixty Two only)		

- (b) The equipment shall be supplied from your works. The prices of equipment accepted above are FIRM and FOR delivery destination stores.
- (c) The dispatch of the equipment is by road only. The transit insurance shall include storage cover for 45 days at destination stores.
- (d) It is noted that the prices are with the present rate of Excise Duty (ED) @ 10%, Cess on ED @ 3%, and CST @ 2% against 'C' form on the total of Ex-works, ED & Cess.

(e) The TSTRANSCO shall have the right to vary the ordered quantity by +/- 50% at any time during the execution of the order.

(f) The Price is inclusive of all incidental charges such as packing, forwarding, handling, unloading and other incidentals.

3. **Delivery:** To supply 20 Nos. within two months from the date of Purchase Order and the balance @ minimum 20 Nos. per month thereafter.

4. **Performance Security:**

Performance security shall be furnished in the name of TSTRANSCO (Draft enclosed) for an amount of 10% of the contract value for proper fulfillment of the contract, which will include the warranty period and completion of performance obligations including Warranty obligations. The Performance security will cover 60 days beyond the date of completion of performance obligations including Warranty obligations.

In the event of any correction of defects or replacement of defective material during the warranty period, the warranty for the corrected/replaced material will be extended to a further period of 12 months and the Performance Bank Guarantee for proportionate value will be extended 60 days over and above the extended warranty period.

It is entirely your responsibility to extend the validity of this Bank Guarantee to cover the period of guarantee well before its expiry.

5. **Guaranteed Technical Particulars:** The Guaranteed Technical Particulars are indicated in Annexure

6. **Payment:**

a) 100% payment will be arranged through PFC/REC/Bank/TSTRANSCO/Bulk Load funds within 45 days reckoned from the check measurement date in form-13.

b) For Real Time Gross Settlement (RTGS) the details of Bank Account of M/s Siemens, Chennai are as follows:

(i)	Name of the Bank	DEUTSCHE BANK
(ii)	Branch Address	FORT
(iii)	Branch Code	784
(iv)	City	MUMBAI
(v)	Account No.	0000 786 000
(vi)	MICR Code	400200002
(vii)	IFSC Code	DEUT0784BBY

- c) The Bank charges will be made to the account of M/s SIEMENS Limited, Chennai. The Charges will be recovered from the Bill amount per each disbursement on LOA raised by unit officers.
- d) The 100% payment mentioned above is subject to submission of performance security by the supplier as per clause (4) above.
- e) The supplier should invariably submit acceptance and routine test certificates and other documents, the purchaser specifies as soon as dispatch is made so that they can be checked and approved well in advance.
- f) The performance guarantee to be executed in accordance with this specification will be furnished on a stamp paper of value Rs.100/-. The Bank Guarantee will be extended if required suitably in accordance with the provisions of Performance Security Clause of the Specification.
- g) If the supplier has received any over payments by oversight or if any amounts are due to the TSTRANSCO due to any other reasons, when it is not possible to recover such amounts under the contract resulting out of this specification, TSTRANSCO reserves the right to collect the same from any other amount due to the supplier and / or Bank Guarantees given by the company due to or with TSTRANSCO.
- h) When the supplier does not at any time, fulfill his obligations in replacing / rectifying etc. the damaged / defective materials in part or whole promptly to the satisfaction of the TSTRANSCO Officers, TSTRANSCO reserves the right not to accept the bills against subsequent dispatches made by the supplier and only the supplier will be responsible for any demurrages, wharf ages or damage occurring to the consignments so dispatched.
- i) Any incidental charge such as stamp duty, bank charges etc., shall be to the Supplier's account and any charges in relation there to shall not be included in the bills submitted to TSTRANSCO's Paying Officer through Banks.
- j) All payments will be made in non-convertible Indian Rupees.

7. RESPONSIBILITY OF THE SUPPLIER FOR LOSS/DAMAGE

- (a) The supplier is responsible for the safe delivery of the goods in good condition at the destination. He should acquaint himself of the conditions obtaining for handling and

transport of the goods to destination and shall include and provide for security and protective packing of the goods so as to avoid damage in transit.

- (b) External damages or shortages that are prima facie the results of rough handling in transit or due to defective packing will be intimated within a fortnight of the receipt of the materials. Internal defects, damages or shortages of any internal parts which cannot ordinarily be detected on a superficial visual examination will be intimated subsequently.

In either case, the defective or damaged materials should be replaced by the supplier free of cost to the TSTRANSCO. If no steps are taken within 15 days of receipt of intimation of defects or such other reasonable time as the TSTRANSCO may deem proper to afford, TSTRANSCO may without prejudice to its other rights and remedies cause to be repaired or rectified the defective material or replace the same and recover the expenditure incurred there for from the deposit such as Earnest Money, Security and Performance or other monies available with TSTRANSCO or by resorting to legal action.

- (c) For the purpose of any legal construction, the material shall be deemed to pass into TSTRANSCO's ownership only at the final destination where they are delivered and accepted.

8. Penalty for Late Delivery:

- a) The delivery period as per agreed delivery schedule shall be deemed to be the essence of the contract. In case of delay in delivery of materials beyond the agreed delivery schedule or to perform the services within the period specified in the contract whatever be the reason the TSTRANSCO may at its option, demand and recover from the supplier from the contract price, as liquidated damages, a sum equivalent to 0.5% per week on the undelivered portion subject to a maximum of 5% of total value of contract.
- b) For penalty, the number of days of delay would be rounded off to the nearest week and interest calculated accordingly.
- c) Equipment which is not of acceptable quality (or) not confirming to specification would be deemed to be not delivered.
- d) The penalty specified will be levied and would be adjusted against subsequent pending bills.

- e) The check measurement date in Form-13 i.e., the date of receipt of equipment at the destination stores in good condition will be taken as date of delivery.

9. Force Majeure:

- (a) The Supplier will not be liable for forfeiture of its performance security, penalty for late delivery or termination for default if and to the extent that it's delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
- (b) For the purpose of this clause 'Force Majeure' means an event beyond the control of the Supplier and not involving the Suppliers' fault or negligence and not foreseeable. Such events may include but are not restricted to wars or revolutions, fires, floods, epidemics, earth quakes, Tsunami, quarantine restrictions and freight embargoes.
- (c) If the Force Majeure situation arises, the supplier will promptly notify the Purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier will continue to perform its obligations under the Contract as far as is reasonably possible, and will seek all reasonable alternative means for performance not prevented by the Force Majeure event.

10. Termination for Default:

- (a) The Purchaser without prejudice to any other remedy for breach of Contract, by written notices of default sent to the Supplier, may terminate this Contract in whole or part :
 - i) If the Supplier fails to deliver any or all of the Materials/equipment within the period(s) specified in the Contract, or within any extension thereof granted by the Purchaser.
 - ii) If the Supplier fails to perform any other obligation(s) under the Contract.
 - iii) If the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.
- (b) In the event the Purchaser terminates the Contract in whole or in part, the Purchaser may procure, upon such terms and in such manner, as it deems appropriate, Materials/equipment or services similar to those undelivered and the Supplier will be liable to the Purchaser for any excess costs for such similar Materials/equipment or Services. However, the Supplier will continue performance of the Contract to the extent not terminated.

11. Termination for convenience:

- (i) The Purchaser, by written notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination will specify the termination is for the Purchaser's convenience, the extent to which performance of the supplier under the Contract is terminated, and date upon which termination becomes effective.
- (ii) However the Materials / equipment that are complete and ready for shipment within thirty (30) days after the supplier's receipt of notice of termination will be accepted by the Purchaser at the Contract terms and prices.

12. Warranty:

The material shall be guaranteed for satisfactory performance for a period of 18 months from the date of receipt of material/equipment at TLC stores or at site in good condition against defects proved to be due to faulty design of material/ workmanship. If during this period, any of the material is found defective they shall be repaired or replaced by you free of all costs to the TSTRANSCO. To and fro freight charges shall also be to your account only.

13. CENTRAL SALES TAX:

The Central Sales Tax is payable on Ex-works + Excise Duty + Education Cess on Excise Duty. Necessary C-form will be furnished by the consignee at the time of supply on demand.

14. Excise Duty:

If central excise duty is payable and claimed you shall furnish the following certificate with the invoice "Certified that the Excise duty claimed in the invoice is adjusted in the personal ledger account maintained by the central excise department No. (date)"

You shall also agree, that if, at any time, any Central Excise Duty reported to have been paid has not been paid, or a lesser amount has been paid, or on subsequent adjudication or appeal or revision it is decided that a lesser amount is payable, you shall refund such amounts irrespective of time lag.

15. Statutory Variations:

Any variation up or down in statutory levy or new levies introduced after signing of the contract under this specification will be to the account of TSTRANSCO, provided that in cases where delivery schedule is not adhered to by the supplier and there are upward variation/ revision after the agreed delivered date, the supplier will bear the impact of such levies and if there is downward variation / revision the TSTRANSCO will be given credit to that extent.

Statutory variation if any allowed, it is allowed only once during delivery period, i.e. at the time of delivery of goods at factory.

In case of sub-vendor items, taxes & duties are inclusive in tender price and no statutory variation is applicable.

In cases where the bidder assumes less tax rates and become lowest, upward variation of taxes will not be considered. In case of the bought out items for which the prices are quoted all inclusive of taxes, statutory variation shall not be applicable

16. Dispatch Instructions:

The dispatch instructions for the equipment will be furnished separately on satisfactory scrutiny of acceptance test certificates. The prices indicated in clause (2) above shall remain unaltered whatever be the destination.

17. Inspection:

The accredited representative of the TSTRANSCO shall have access to your works/sub-contractor's works at any time during the working hours for the purpose of inspecting the materials during the manufacture of the equipment and for testing any selected samples from the equipment going into the product. You shall, on such occasion provide proper and adequate facilities. Adequate notice of 15 days shall be given for deputing the departmental representative for witnessing the acceptance tests and third party testing at NABL accredited laboratories on the equipment. The equipment should not be dispatched without final inspection of the tests, approval of test certificates and issue of specific dispatch instructions or specific waiver thereof from this office.

18. Contract Drawings:

Three sets of the detailed drawing along with soft copy of the equipment ordered giving full particulars of sectional views to give a clear idea of construction and working of the

equipment shall be furnished for approval. Approval by TSTRANSCO to the supplier's drawings shall not relieve the supplier of his responsibility for correctness thereof or from results arising out of error or omission therein or from any obligation or liability under the contract. Any supplementary drawings necessary to permit the complete design of the installation prior to receiving the equipment shall also be supplied. Within two weeks of approval, six sets of all approved drawings and soft copy of drawings shall be furnished. One set of drawings and instruction manuals along with soft copy shall be sent along with each equipment at the time of dispatch. Copies of the drawings and manuals shall also be sent to other offices as indicated below.

Consignee	:	One set of approved drawings per consignee
Two Sets	:	Concerned Executive Engineer
To this office	:	Six sets.

19. Erection, Operation & Maintenance Manuals:

Erection, operation and maintenance manuals along with soft copy shall be supplied as per distributions given below giving detailed instructions with illustrations along with the equipment. They shall contain clear recommended schedule of maintenance for the guidance of the operating staff. Any items requiring the special attention of the operation engineer should be highlighted.

Consignee	:	One set per consignment
Concerned Executive Engineer	:	Two sets
To this office	:	Six sets

These shall be sent to the Divisional Engineers / Executive Engineers concerned.

20. Completeness of Contract:

All minor accessories that are normally necessary for satisfactory and efficient operation of the equipment shall be supplied by you free of cost to the TSTRANSCO whether these are specifically mentioned or not in the specification, your tender schedules or in this purchase order and the equipment shall be complete in itself.

21. General Conditions of Contract:

Except in so far as it is provided otherwise in this contract, you shall abide by the terms and conditions appended to the specification. Except as specifically accepted in this order the terms and conditions mentioned in your quotation under reference are not accepted.

22. Risk:

The risk in the property is entirely yours till the goods are received in good condition at the destination.

23. Packing:

Each CT shall be securely packed separately in such a manner as to withstand rough handling during rail and road transit upto site and as per latest IS/BSS/IEC.

24. Tests & Test Certificates:

All routine tests in accordance with relevant ISS/BSS/IEC specifications shall be conducted on the equipment. You shall intimate this office at least 15 days in advance as to the date when you propose to conduct the acceptance tests for deputing TSTRANSCO's representative to witness the tests. Three copies of the test certificates containing the results of all the acceptance tests along with routine tests carried out shall be furnished for approval.

The test certificates shall be submitted immediately after the tests are conducted and got approved before the equipment is dispatched.

25. Material & Workmanship:

All the materials shall be of the best class and shall be capable of satisfactory operation in the tropics under service conditions without distortion or deterioration. No welding or filling or plugging of defective parts shall be permitted, unless otherwise specified they shall conform to the requirement of the appropriate Indian, British or American standards (where a standard specification covering the material in question has not been published the standards of the American society for testing of materials should be followed).

The entire design and construction shall be capable of withstanding the several stresses likely to occur in actual services and of resisting rough handling during transport.

26. Insurance:

As insurance charges are included in your prices (clause 2 (b)) you should cover the equipment against transit risks and also for further period of 45 days towards storage from the date of receipt of equipment at site. It is entirely your responsibility for arranging the insurance through your underwriters. The damages and shortages will be intimated to you as stipulated in purchase order and you shall arrange for replacement/repairs immediately without awaiting settlement from insurance authorities.

27. Interchangeability:

All similar equipment and removable parts of similar equipment shall be interchangeable with each other.

28. Spares:

You shall supply any spares required for the equipment that will be supplied under this order, whenever called upon to do so at fair prices and at the TSTRANSCO's standard terms of payment within a period not exceeding the deliveries accepted therein.

29. Progress Reports:

You shall furnish the program of works and progress reports on the manufacture of equipment to this office every month in triplicate till the supplies are completed.

30. Correspondence:

- a) Your acknowledgement of this order and all correspondence of general or technical nature shall be addressed to the Chief Engineer/Transmission & LI, TSTRANSCO, Vidyut Soudha, Hyderabad -500 082.
- b) All correspondence regarding dispatches, payments and any other field matters shall be addressed to the concerned paying officer. Copies of such correspondence shall be marked to the concerned Superintending Engineer and to the Chief Engineer/Transmission & LI, TSTRANSCO, Vidyut Soudha, Hyderabad -500 082. Copies of the correspondence regarding payments should also be marked to the FA & CCA (Accounts), TSTRANSCO, Vidyut Soudha, Hyderabad -500 082.

31. Jurisdiction:

All and any disputes or differences arising out of or touching this order shall be decided only by courts or tribunals situated in Hyderabad or Secunderabad cities. No suit or other legal proceedings shall be instituted elsewhere.

32. Supervision of Erection, testing and commissioning:


You have to provide services of qualified personnel for supervision of erection, testing at site and commissioning of these Capacitor Voltage Transformers wherever required. The above services should be provided free of Cost.

33. Acknowledgement:

Please acknowledge the receipt of this purchase order with your confirmation of its acceptance by you and the extra copy enclosed may please be returned with your signature in token of your acceptance.

Encl.: (i) Annexure - I (GTP)
(ii) Format of Performance Bank Guarantee

Yours faithfully,


Chief Engineer/Transmission & EI (FAC)
(Acting for and on behalf of TSTRANSCO)

WE ACCEPT THE TERMS AND CONDITIONS OF THIS PURCHASE ORDER

SIGNATURE OF THE CONTRACTOR
WITH SEAL AND DATE

Copies to:

The Chief Engineer/Construction/APTRANSCO/Vidyut Soudha/Hyderabad.

The FA & CCA (Accounts)/TSTRANSCO/Vidyut Soudha/Hyderabad

The ADE/T /O/o. Superintending Engineer/P&MM/TSTRANSCO/VS/Hyderabad.

The SAO/P & A/TSTRANSCO/Vidyut Soudha/Hyderabad

The Superintending Engineer/400kV Construction/Metro, Hyderabad


The Executive Engineer-1/400kV Construction/Metro, Hyderabad

ANNEXURE - I

GUARANTEED TECHNICAL PARTICULARS OF 420kV Capacitor Voltage Transformers

1)	Manufacturers/suppliers name and country of manufacture	M/s. Siemens India
2)	Governing standard	IEC 60044-5 / IS3156-4
3)	Rated voltage	
a)	Nominal	400 kV/ $\sqrt{3}$ rms
b)	Maximum	420 kV/ $\sqrt{3}$ rms
4)	Rated frequency	50
5)	No of phases	Single Phase
6)	Maximum temperature rise over 50 deg.C	As per limits defined in IEC 60044-5
7)	Reference range of frequency	40kHz to 500 kHz
8)	Reference range of temperature	As per limits defined in IEC 60044-5
9)	Rated primary burden (VA)	50VA
10) a)	Rated primary voltage	400kV/ $\sqrt{3}$ rms
b)	Rated secondary voltage	110V/ $\sqrt{3}$ rms
c)	Rated secondary burden	50VA
	* Total simultaneous burden (VA)	100 VA/ 0.2
d)	Accuracy class	Wdg-I:3P, Wdg-II:3P, Wdg-III: 0.2
11)	Rated voltage factor	1.2 for continuous and 1.5 for 30sec
12)	Rated intermediate voltage	7.66kV
13)	Total capacitance	4400
14)	High frequency capacitance for entire carrier frequency range	Shall be provided during detailed eng.
15)	Equivalent series resistance over the entire carrier frequency range	20
16)	Stray capacitance and strap conductance of the LT Terminal over entire carrier frequency range	<520 pF & <50 μ Siemens respectively
17)	Rated insulation levels 1.2/50 micro second lightning impulse withstand voltage	1425 kVP
18)	250/2500 micro switching surge withstand voltage	1050kVp
19)	1 minute dry power frequency withstand test voltage	630kV rms
20)	Creepage distance (mm) (with tolerance positive side)	10500
21)	Radio interference voltage	<500 micro volts
22)	Corona extinction voltage	320kV rms
23)	Rated total thermal burden (VA)	400VA
24)	Capacitance (pF)	4400 (+10% / -5%)
a)	Primary Capacitance	4468
b)	Secondary Capacitance	1, 30, 129
c)	Equivalent Capacitance Nominal Capacitance	4400 pF
25)	If CVT suitable for carrier coupling. If so, the range of carrier frequency (KHz)	Yes, 40 kHz to 500 kHz
26)	Natural frequency of coupling capacity	>600kHz
27)	Number of secondary windings	3

28)	Temperature rise at 1.2 times rated voltage and rated burden after steady state conditions at normal rated voltage and burden.	Within limits specified in IS:3156
29)	Temperature rise at 1.5 times rated voltage for 30 sec.	Within limits specified in IS:3156
30)	One minute power frequency withstand voltage on secondary windings:	
	Winding No.I	3kV
	Winding No.II	3kV
	Winding No.III	3kV
31)	Partial discharge level at rated voltage for capacitance divider (Pc)	<10 pC
32)	Over all dimensions	Will be indicated in the drawings
33)	Value of pressure for sealing test	1.1 Bar
34)	Primary and secondary winding Weight oil and the standard to which it conforms made out of (copper only)	
a)	In capacitor unit	26 kG approximate
b)	In measuring unit	24 kG approximate
35)	Total Weight	As per GA drawing
36)	Minimum centre from grounded equipment at various heights of CVTs	7000mm
37)	Clearance required from grounded equipment at various heights of CVTs	Refer GA drawing
38)	Mounting flange dimensional details	Refer GA drawing
39)	Do the CVTs contain built in compensating reactor, HF choke coil, voltage arresters and damping devices in PT Portions	Yes
40)	Transportation Details [Vertical/Horizontal]	Vertical


Chief Engineer
Transmission & LI (FAC)