



**ODISHA POWER TRANSMISSION CORPORATION LTD
OFFICE OF THE SENIOR GENERAL MANAGER,
CENTRAL PROCUREMENT CELL,
JANPATH, BHUBANESWAR - 751022**

**TENDER SPECIFICATION
NO. SGM-CPC-E-TENDER-400kV CVT-132kV IVT-33kV PT-26/2024-25**

FOR PROCUREMENT OF CAPACITIVE VOLTAGE TRANSFORMERS & POTENTIAL
TRANSFORMERS

(LOT)	ITEM DESCRIPTION	UNIT	Total Quantity
I	400KV CVT	Nos.	3
II	132KV IVT	Nos.	98
III	33kV PT(0.2 Class)	Nos.	137

PART-I COMMERCIALBID

SECTION-I	INSTRUCTION TO TENDERERS
SECTION-II	GENERAL CONDITIONS OF CONTRACT
SECTION-III	LIST OF ANNEXURES
SECTION-IV	TECHNICAL SPECIFICATION

PART-II PRICEBID

Request for online tender documents	From	Date	10.04.2025	To	Date	02.05.2025
		Time	11.00Hrs		Time	12:45Hrs
Last date of submission of online tender					Date	02.05.2025
					Time	13:00Hrs
Date of opening of Tender					Date	03.05.2025
					Time	11.00Hrs



**ODISHA POWER TRANSMISSION CORPORATION LTD.
REGD. OFFICE: JANPATH, BHUBANESWAR – 751 022,
ODISHA**

e-TENDER NOTICE NO. CPC-26/2024-25

For and on behalf of ODISHA POWER TRANSMISSION CORPORATION LTD, Sr.G.M. [C.P.C.] invites Tenders from reputed manufacturers in two part bidding system for supply of **Inductive Voltage Transformers**. The interested bidders would be required to enroll themselves on the tender portal www.tenderwizard.com/OPTCL. Complete set of bidding documents are available at www.tenderwizard.com/OPTCL from **10.04.2025 (11:00 Hr)** to **02.05.2025 (13:00 Hr)**. Interested manufacturers may visit OPTCL's official web site <http://www.optcl.co.in> and www.tenderwizard.com/OPTCL for detail specification.

N.B: All subsequent addendum / corrigendum to the tender shall be hosted in the OPTCL's official website <http://www.optcl.co.in>, www.tenderwizard.com/OPTCL only.

SENIOR GENERAL MANAGER [C.P.C.]

NOTICE INVITING TENDER
ODISHA POWER TRANSMISSION CORPORATION LTD.,
REGD. OFFICE: JANPATH, BHUBANESWAR – 751022, ODISHA, INDIA.
e-TENDER NOTICE NO- CPC-26/2024-25.

For and on behalf of the ODISHA POWER TRANSMISSION CORPORATION LTD., the undersigned invites bids under two-part bidding system in e- tendering mode only as per the following details.

Tender Specification No	Description of materials.		Quantity in Nos.	Earnest Money Deposit (In Rs.)	Cost of Tender Document (In Rs.)	Tender Processing Fee (In Rs.)	Last date of receipt & Date of opening of Tender
SGM-CPC-E-TENDER-400kV CVT-132kV IVT-33kV PT-26/2024-25	I	400KV CVT	3	8,179.00	4,720.00	Rs 5,000/ + GST@18% = Rs 5,900/- (Rupees Five Thousand Nine Hundred only)	02.05.2025 (13.00)Hr & 03.05.2025 (11.00)Hr
	II	132KV IVT	98	1,31,560.00	14,160.00		
	III	33KV PT(0.2 Class)	137	50,626.00	14,160.00		

TENDER COST:

The bidders who want to submit bids shall have to pay non-refundable amount as indicated above only including GST @ 18%) towards the tender cost, online through e-payment gateway link provided in e-tender portal (by using Net Banking, Debit Card or Credit Card). The online payment can be made prior to last date & time of submission of online tender. They have to also submit notarized hard copy of GST registration certificate on or before the scheduled date & time of opening of techno-commercial bid. They have to also submit notarized hard copy of GST registration certificate on or before the date & time of submission of techno-commercial bid.

TENDER PROCESSING FEE:

The bidders shall have to submit non-refundable amount of Rs.5,900/- (Rupees Five thousand & nine hundred) only including GST @ 18%) towards the tender processing fee to K.S.E.D.C.Ltd, in e-payment mode. The e-payment of above amount is to be made to enable the bidder to download the bid proposal sheets & bid document in electronic mode.

SUBMISSION OF TENDER COST, TENDER PROCESSING FEE & EMD:

The bidder shall deposit the tender cost, tender processing fee & EMD BG prior to last date & time for submission of bid as notified in tender notice. Local micro & small enterprisers (MSEs) **(In the state of Odisha)** based in Odisha and registered with respective DICs, Khadi, Village, Cottage & Handicrafts Industries, OSIC and NSIC can participate without payment of the cost of tender specification. They have to submit notarized hard copy of valid registration as local MSE **(In the state of Odisha)** as above on or before the date & time of submission of techno-commercial bid.

The tender cost , processing fees are to be submitted along with the EMD at the office of the undersigned on or before the last date & time of submission of tender.

The bidders shall scan the Demand Draft/Pay order/ Bank guarantee, towards EMD/ notarised hard copy of valid registration as local MSE **(In the state of Odisha)** (if any) and upload the same in the prescribed form in .gif or .jpg format in addition to sending the original as stated above.

The prospective bidders are advised to register their user ID, Password, company ID from website **www.tenderwizard.com/OPTCL** by clicking on hyper link “Register Me”.

Any clarifications regarding the scope of work and technical features of the tender can be had from the undersigned during office hours.

Minimum qualification criteria of bidders: AS STIPULATED IN SECTION-II, (G.T.C.C) OF THE TENDER SPECIFICATION.

SENIOR GENERAL MANAGER, CPC

**ODISHA POWER TRANSMISSION CORPORATION LTD.
OFFICE OF THE SR. GENERAL MANAGER**

CENTRAL PROCUREMENT CELL

FAX NO.:0674 – 2542964

TENDER SPECIFICATION NO. SGM-CPC-E-TENDER-220kV-132kV-IVT-26/2024-25

CONTAINING

PART – I

- | | | |
|----------------------|----------|--|
| SECTION – I | : | INSTRUCTION TO TENDERERS |
| SECTION – II | : | GENERAL TERMS AND CONDITIONS OF
CONTRACT (G.T.C.C.) (COMMERCIAL) |
| SECTION – III | : | LIST OF ANNEXURES (COMMERCIAL) |
| SECTION – IV | : | TECHNICAL SPECIFICATION |

- | | | |
|-------------------------|----------|-------------------|
| <u>PART – II</u> | : | PRICE BID. |
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PART – I.

SECTION – I.

INSTRUCTIONS TO TENDERERS

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COMMERCIAL SPECIFICATION

SECTION-I

INSTRUCTIONS TO TENDERER

1. Submission of Bids: -

The bidder shall submit the bid in Electronic Mode only i.e. **www.tenderwizard.com/OPTCL**. The bidder must ensure that the bids are received in the specified website of the OPTCL by 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 the OPTCL.

The OPTCL reserves the right to reject any bid, which is not deposited according to the instruction, stipulated above. The participants to the tender should be registered under GST laws.

1. For all the users it is mandatory to procure the Digital Signatures.
2. Contractors / Vendors / Bidders / Suppliers are requested to follow the below steps for Registration:
 - a. Click “Register”, fill the online registration form.
 - b. Pay the amount of Rs. 2360/- through e-payment in Favour of KSEDCL Bangalore.
 - c. Send the acknowledgment copy for verification.
 - d. As soon as the verification is being done the e-tender user id will be enabled.
3. After viewing Tender Notification, if bidder intends to participate in tender, he has to use his e-tendering User Id and Password which has been received after registration and acquisition of DSCs.
4. If any Bidder wants to participate in the tender he will have to follow the instructions given below:
 - a. Insert the PKI (which consist of your Digital Signature Certificate) in your System. (Note: Make sure that necessary software of PKI be installed in your system).
 - b. Click / Double Click to open the Microsoft Internet Explorer (This icon will be located on the Desktop of the computer).
 - c. Go to Start > Programs > Internet Explorer.
 - d. Type **www.tenderwizard.com/OPTCL** in the address bar, to access the Login Screen.
 - e. Enter e-tender User Id and Password, click on “Go”.
 - f. Click on “Click here to login” for selecting the Digital Signature Certificate.
 - g. Select the Certificate and enter DSC Password.
 - h. Re-enter the e-Procurement User Id Password

5. To make a request for Tender Document Bidders will have to follow below mentioned steps.
 - Click “Un Applied” to view / apply for new tenders.
 - Click on Request icon for online request.
6. After making the request Bidders will receive the Tender Documents which can be checked and downloaded by following the below steps:
 - Click to view the tender documents which are received by the user.
 - Tender document screen appears.
 - Click “Click here to download” to download the documents.
7. After completing all the formalities Bidders will have to submit the tender and they must take care of following instructions.
 - Prior to submission, verify whether all the required documents have been attached and uploaded to the particular tender or not.
 - Note down / take a print of bid control number once it displayed on the screen
8. Tender Opening event can be viewed online.
9. Competitors bid sheets are available in the website for all.
10. **For any e-tendering assistant contact help desk number mentioned below.**Bangalore – 080- 40482000.

The participants to the tender should be registered under GST laws.

2. Division of Specification.

The specification is mainly divided into two parts viz. Part-I & Part-II.

Part-1 Consists of

- | | |
|-------------------|---|
| [i] Section-I | Instruction to Tenderers. |
| [ii] Section-II | General Terms & conditions of contract. |
| [iii] Section-III | Schedules and forms etc. |
| [iv] Section-IV | Technical Specification. |

Part-II Consists of

Schedule of prices as per Annexure-V

3. Tenders shall be in two parts.

The Tenderers are required to submit the tenders in two parts viz. Part-I (Techno commercial) & Part-II (Price bid).

4. Opening of Bids.

- [a] The tender shall be opened on the date and time fixed by the OPTCL for opening of bids in Electronic mode in presence of such of the Tenderers or their authorized representatives [limited to one person only] on the due date of opening of tender who opt remain present.

After scrutiny of the technical particulars and other commercial terms, clarifications, if required, shall be sought for from the bidders. The Tenderers shall be allowed 15 days time for such activity.

- [b] On receipt of technical clarification, the bids shall be reviewed, evaluated and those not in conformity with the technical Specification / qualifying experience, shall be rejected. If any of the technical proposal requires modification to make them comparable, discussion will be held with the participating bidders.

All the responsive bidders shall be given opportunity to submit the revised technical and revised price proposals as a follow up to the clarification (modification if any) on the technical proposals. The qualified bidders shall be given opportunity to submit revised price proposals within 15 days from the date of such discussion or within time frame mutually agreed, whichever is earlier.

- [c] When the revised price proposals are received, the original price proposals will be returned to the bidders unopened along with their original technical proposals. Only the revised technical and price proposals will be considered for bid evaluation. The price bids [Part-II] of such of the Tenderers, whose tenders have been found to be technically and commercially acceptable, including those supplementary revised price bids, submitted subsequently, shall be opened in the presence of the bidder's representative on a date and time which will be intimated to all technically and commercially acceptable Tenderers.
- [d] The bidders are required to furnish sufficient information to the Purchaser to establish their qualification, capacity to manufacture and/or supply the materials/perform the work. Such information shall include details of bidder's experience, its financial, managerial and technical capabilities.
- [e] The bidders are also required to furnish details of availability of appropriate technical staff and capability to perform after sales services. The above information shall be considered during scrutiny and evaluation of bids and any bid which does not satisfactorily meet these requirements, shall not be considered for price bid evaluation.
- [f] The price bids of the technically and otherwise acceptable bids shall only be evaluated as per the norms applicable in terms of this Specification.

4.1. Registration certificate of DPIIT:

- 4.1.4.1 As per Office Memorandum No.F.No.6/18/2019-PPD, Ministry of Finance, Dept. of Expenditure Public Procurement Division, New Delhi and Office Memorandum No. FIN-CON-MISC-0007/2019/27945/F Dated.16.10.2020 of Finance Department, Govt. of Odisha *"Any bidder from a country which **shares a land border with India** will be eligible to bid in any procurement whether goods, services (Including consultancy services and non-consultancy services) or works (including turnkey projects) **only if the bidder is registered with the Competent Authority, DPIIT** (i.e. Department for Promotion of Industry and*

Internal Trade)". Pursuant to decision of Govt. of India prescribing imposition of restriction on public procurement from bidders of certain countries on ground of defence of India or matters directly or indirectly related thereto, the Office Memorandum No. 4939/F, dated: 13.02.2012 of Finance Department, Govt of Odisha has been amended vide Office Memorandum No 27945 Dtd 16.10.2020 by inserting sub-para-3 (vii) to para-3 thereof. Prescribing the restriction on procurement made by the State Govt., State Public Sector Undertaking including local bodies etc. and directing no procurement shall be made in violation of such restrictions, it is hereby clarified that the provisions of the same shall be applicable for the tenders for works/procurement/Service in OPTCL in both ongoing (Techno-Commercial bid not opened) and future tenders. The tender documents of OPTCL shall contain following additional clauses and certificate formats

A. To be incorporated as qualifying requirement of bidder /certificates in case of tenders for procurement of goods/services(including consultancy and non-consultancy)

- I. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority as per requirement of Govt. of India
- II. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated herein before, including any agency branch or office controlled by such person, participating in a procurement process.
- III. "Bidder from a country which shares a land border with India" for the purpose of this Order means :-
 - a. An entity incorporated, established or registered in such a country ; or
 - b. A subsidiary of an entity incorporated, established or registered in such a country ' or
 - c. An entity substantially controlled through entities incorporated , established or registered in such a country ; or
 - d. An entity whose beneficial owner is situated in such a country ; or
 - e. An Indian (or other) agent of such an entity ; or
 - f. A natural person who is a citizen of such a country ; or
 - g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above.
- IV. The beneficial owner for the purpose of (iii)(d) above will be as under :

1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting along or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.

Explanation-

- a. “Controlling ownership interest” means ownership of or entitlement to more than twenty-five per cent of shares or capital or profits or the company.
 - b. “Control” shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreement;
2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting along or together, or through one or more juridical person, has ownership or entitlement to more than fifteen per cent of capital or profits of the partnership ;
 3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting along or together, or through one or more juridical person, his ownership of or entitlement to more than fifteen per cent of the property or capital or profits of such association or body of individuals ;
 4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who hold the position of senior managing official ;
 5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen per cent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.
- V. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.

Certificate (to be furnished in bidder's letter head)

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered. [Where applicable, evident of valid registration by the Competent Authority shall be attached.]

5. Purchaser's Right Regarding Alteration of Quantities Tendered.

The Purchaser may alter the quantities of materials/equipment at the time of placing orders. Initially the purchaser may place orders for lesser quantity with full freedom to place extension orders for further quantity under similar terms and conditions of the original orders. Orders may also be split among more than one tenderer for any particular item, if considered necessary in the interest of the Purchaser to get the goods/equipment earlier.

6. Procedure and opening time of tenders.

Tenders will be opened in the office of the Chief General Manager [C.P.C.] on the specified date and time in presence of the Tenderers or their authorized representatives [limited to one person only] in case of each bidder who may desire to be present, at the time of opening the bids.

7. Bidder's Liberty to deviate from Specification.

The Tenderer may deviate from the specification while quoting, if in his opinion, such deviation is in line with the manufacturer's standard practice and conducive to a better and more economical offer. All such deviations should however be clearly indicated giving full justifications for such deviation. [Read with Clause-9, Section-II of the Specification].

8. Eligibility for submission of bids.

Only those manufacturers who have deposited the cost of tender specification are eligible to participate in the tender. They should submit the money receipt as a proof of such payment. The local Micro and small Enterprises(MSEs) (In the state of Odisha) registered with respective DICs, Khadi, Village, Cottage & Handicrafts Industries, OSIC and NSIC can participate without payment of the cost of tender specification

9. Purchaser's right to accept/reject bids:

The purchaser reserves the right to reject any or all the tenders without assigning any reasons what so ever if it is in the interest of OPTCL, under the existing circumstances. [Read with clause-10, Section-II of the specification].

10. Mode of submission of Tenders.

- [A] Tenders shall be submitted in electronic mode only. (www.tenderwizard.com/OPTCL)
- [B] **Telegraphic or FAX tenders** shall not be accepted under any circumstances.

11. Earnest money deposit:

The tender shall be accompanied by Earnest Money deposit of value specified in the notice inviting tenders against each lot / bid. Tenders without the required EMD as indicated at **Annexure-VIII** will be rejected out rightly.

The local Micro and small Enterprises(MSEs) (In the state of Odisha)registered with respective DICs, Khadi, Village, Cottage & Handicrafts Industries, OSIC and NSIC can participate by submitting Earnest Money Deposit @ fifty percent of the amount indicated in the Notice Inviting Tender.

The earnest money deposit shall be furnished in one of the following forms subject to the conditions mentioned below:

- (a) **Bank Draft:** -To be drawn in favour of Drawing & Disbursing Officer, OPTCL [H.Qrs.Office], Bhubaneswar-751 022.
- (b) Bank Guarantee from any Nationalized/Scheduled Bank strictly as per enclosed proforma vide **Annexure-VI** to be executed on non-judicial stamp paper worth Rs.29.00 or as applicable, as per prevailing laws in force and also to be accompanied by the confirmation letter of the issuing Bank Branch.

NOTE:

- (i). The validity of the EMD in the form of Bank Guarantee shall be at least for 240 days from the date of opening of tender failing which the tender will be liable for rejection.
- (ii) No interest shall be paid on the Earnest Money Deposit.
- (iii) Earnest Money Deposit shall be furnished in any one of the forms indicated above (i.e. Through Bank Draft, Bank Guarantee).
- (iv) No adjustment towards EMD shall be permitted against any outstanding amount with the **ODISHA POWER TRANSMISSION CORPORATION LTD.**
- (v) The chart showing particulars of EMD to be furnished by Tenderers of different categories is placed at **Annexure-VIII.**
- (vi) In the case of un- successful tenderer, the EMD will be refunded after the tender is decided. In the case of successful Tenderer, this will be refunded only after furnishing of security money referred to at clause-19 of Section-II.

- (vii) Suits, if any, arising out of this clause shall be filed in a Court of law to which the jurisdiction of High Court of ODISHA extends.
- (vii) EMD will be forfeited if the tenderer fails to accept the letter of intent and/or purchase order issued in his favour or to execute the order, placed on them.
- (viii) Tenders not accompanied by Earnest Money shall be disqualified.

12. Validity of the Bids: -

The tenders should be kept valid for a period of **180** days from the date of opening of the tender, failing which the tenders will be rejected.

13. PRICE: -

i) Tenderers are requested to quote-‘FIRM’ Price. No deviation from **FIRM PRICE** will be entertained irrespective of deviation clause No.7 of this part of the specification.

14. Revision of tender price by Bidders: -

[a] 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.

[b] 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 tender 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.

15. Tenderers to be fully conversant with the clauses of the Specification: -

Tenderers are expected to be fully conversant with the meaning of all the clauses of the specification before submitting their tenders. In case of doubt regarding the meaning of any clause, the tenderer may seek clarification in writing from the Chief General Manager (Central Procurement Cell) OPTCL. This, however, does not entitle the Tenderer to ask for time beyond due date, fixed for receipt of tender.

16. Documents to Accompany Bids.

Tenderers are required to submit tenders in the following manner:

The Tender shall Contain the following documents.

[i]	Declaration Form. [As per Annexure-I]
[ii]	Earnest Money. [As per Annexure-VIII], Tender Cost .

[iii]	Technical specification and Guaranteed Technical Particulars conforming to the Purchaser's Specification along with drawings, literatures and all other required Annexures, duly filled in.
[iv]	Photostat copies of type test certificates of materials/equipment offered as stipulated in the Technical Specification.
[v]	Abstract of Terms & conditions in prescribed proforma as per Annexure-II .
[vi]	General Terms & Conditions of supply offer as per Section-II of the Specification.
[vii]	List of orders executed for similar materials/equipment during preceding 2 (two) years indicating the customer's name, Purchase Order No. & Date, date of supply and date of commissioning etc.
[viii]	Data on past experience as per Clause-7 of Section-II of the Specification.
[ix]	GST Compliance Rating. The GST Identification Number (GSTIN) under GST Laws and permanent account number [PAN] of the firm, IT return for last 3 years under Income tax Act are required.
[x]	Audited Balance sheet & profit loss accounts of the bidder, for past (3) three years.
[xi]	Schedule of quantity and delivery in the prescribed Proforma vide <u>Annexure, as appended.</u>
[xii]	List of Orders in hand to be executed.
[xiii]	Deviation schedule.
[xiv]	The bidder should not have any pending litigation or arbitration with OPTCL with regard to any project or related activity. The bidder should certify/declare the same in unequivocal terms by way of an affidavit duly sworn before a magistrate/notary.
[xv]	Notarized hard copy and soft copy of valid registration as local (In the state of Odisha) MSE (if any).
[xvi]	Reverse Auction Process Compliance Form (Annexure-IB)
[xvii]	Certificate of DPIIT

17. Documents/Papers to accompany Part-II Bid.

(a) Part-II of the tender shall consist of the following

(i) Schedule of prices in the prescribed proforma

18. Conditional Offer:

Conditional offer shall not be accepted.

19. General: -

- (i) In the event of discrepancy or arithmetical error in the schedule of price, the decision of the purchaser shall be final and binding on the Tenderer.
- (ii) For evaluation, the price mentioned in words shall be taken if there is any difference in figures and words in the price bid.
- (iii) Notice inviting tender shall form part of this specification.
- (iv) The price bids of the technically and otherwise acceptable bids shall only be evaluated. The EMD of others, if any, shall be returned to the bidders.
- (v) Tenderer can offer any lot or all the lots of the tender, if there are more than one lots. But the tender (bid) must be furnished separately for each lot.

- (vi) It should be distinctly understood that the price bid shall contain only details/documents relating to price, as outlined in clause-17 mentioned herein above. Inclusion of any of the documents/information etc. shall render the bid liable for rejection.
- (vii) The tenderer must submit the EMD amount, cost of tender document (Form Fee) and Tender processing fee in a sealed cover envelope super-scribing the tender specification number, Tender Notice No & Date of tender clearly on the cover envelope. The said envelope is to be submitted in the office of the purchaser on or before the last date and time of submission of Bids.

20.0 Expenses in respect of OPTCL's representative for witnessing the inspection & testing of the offered equipment/materials at the inspection and testing site.

The testing and inspection of the equipment/ materials at manufacturer works are in the scope of work of the Contractor/Supplier.

OPTCL inspecting officer, on receipt of offer for inspection from the contractor/supplier, proceeds to the manufacturer works to witness the Type/Acceptance/Routine test.

Important:

It is hereby informed to all the bidders that the relevant clauses of the contract specification, pertaining to inspection and testing of equipment/materials, are hereby supplemented with following additional terms and conditions.

The expenses under the following heads, in respect of OPTCL's representative for witnessing the inspection & testing of the offered equipment/materials at the inspection and testing site, shall be borne by the contractor / supplier.

a) Hotel Accommodation:

- I. Single room accommodation in 4 star hotel for the OPTCL inspecting officer of the rank of Assistant General Manager (Grade E-6) and above.
- II. Single room accommodation in 3 star hotel for the OPTCL inspecting officer of the rank below Assistant General Manager (Grade E-6).

N.B.: It is the responsibility of the contractor to arrange the hotel accommodation matching with their inspection and testing schedule, so that the inspecting officer can check-in the hotel one day prior to the date of inspection and check out after the completion of the inspection, subject to availability of the return travel ticket. In case of extended duration of inspection or non-availability of the return travel ticket, Contractor/supplier/manufacturer shall arrange for the extended stay of the inspecting officer in the Hotel accordingly. In case there is no hotel with prescribed standard in and around the place of inspection, the

contractor/supplier/manufacture shall suggest alternative suitable arrangement at the time of offer for inspection, which is subjected to acceptability of OPTCL inspecting officer.

b) Journey of the inspecting officer:

- (i) To and fro travel expenditure from the Head Quarters of the inspecting officer to the place of inspection/testing shall be borne by the contractor/supplier/manufacture. Journey from the Head Quarters of the inspecting officer to the nearest Air Port by train (Ist/IIInd A.C) & A/C Taxi then by Air to the place of inspection/testing or to the nearest place of inspection/testing and then by train (Ist/IIInd A.C) & A/C taxi to the place of inspection/testing shall be arranged by the contractor/supplier/manufacture.
- (ii) For train journey, inspecting officer of the rank Assistant General Manager and above shall be provided with 1st class AC ticket and inspecting officer below the rank of Assistant General Manager shall be provided with 2nd class AC ticket.
- (iii) The Air-ticket / train-ticket booking/cancellation is the responsibility of the contractor / supplier.
- (iv) Moreover, if during the journey there is an unavoidable necessity for intermediate travel by road/ waterway/sea-route, the contractor/supplier shall provide suitable conveyance to the inspecting officer for travel this stretch of journey or bear the cost towards this. Any such possibilities shall be duly intimated to OPTCL at the time of their offer for inspection.

c) Local Conveyance:

At the place of the inspection/testing, for local journey of the inspecting officer between Hotel and inspection/testing site and or any other places, Air-conditioned four wheeler vehicle in good condition shall be provided by the contractor/supplier/manufacture.

d) Following points are also to be considered:

- (i) All the above expenses shall be deemed to be included in the bidder's quoted price for that supply item. Bidder shall not be eligible to raise any extra claim in this regard.
- (ii) Contractor/supplier/manufacture may assume that only in 40% of the inspection and testing offer cases, OPTCL inspecting officer, not below the rank of Assistant General Manager will witness the inspection and testing.
- (iii) In case of inspection and testing of some critical equipment/materials like Power transformers, OPTCL may depute more than one inspecting officer.
- (iv) Contractor/supplier/manufacture shall judiciously plan the inspection/testing schedule and place of inspection/testing, so that optimum number of inspection/testing and minimum time shall be required to cover all the equipment/materials of the relevant contract package.

- (v) It shall be the responsibility of the Contractor/Supplier to organize the above tour related matters of OPTCL inspecting officer including the matters related to overseas inspection/testing, if any.

21. Litigation/Arbitration

(a). Detailed information on any litigation or arbitration arising out of contract completed or under execution by it over the last five years. A consistent history of litigation by or against the bidder may result in rejection of bid.

(b). The bidder should not have any pending litigation or arbitration with OPTCL with regard to any project or related activity. The bidder should certify / declare the same in the unequivocal terms by way of an affidavit duly sworn before a magistrate/notary. Bid furnished by the bidder shall not be eligible for consideration if it is not accompanied by the affidavit. Further the bid / LOA/ LOI shall be liable for outright rejection/ cancellation at any stage if any information contrary to the affidavit / declaration is detected.

SECTION – II.

GENERAL TERMS AND CONDITIONS OF CONTRACT [G.T.C.C.]

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PART-I

SECTION-II

GENERAL TERMS AND CONDITIONS OF CONTRACT [G.T.C.C.]

1. **Scope of the contract:**

The scope of the contract shall be to design, manufacture, supply of equipment as per the specification at the consignee's site, and rendering services in accordance with the enclosed technical specification and bill of quantity.

2.0 **Definition of terms:**

For the purpose of this specification and General Terms and Conditions of contract [GTCC], the following words shall have the meanings hereby indicated, except where otherwise described or defined.

- 2.1 "The Purchaser" shall mean the Chief General Manager[Central Procurement Cell] for and on behalf of ODISHA POWER TRANSMISSION CORPORATION LTD., Bhubaneswar.
- 2.2 "The Engineer" shall mean the Engineer appointed by the Purchaser for the purpose of this contract.
- 2.3 "Purchaser's Representative" shall mean any person or persons or consulting firm appointed and remunerated by the Purchaser to supervise, inspect, test and examine workmanship and materials of the equipment to be supplied.
- 2.4 "The supplier" shall mean the bidder whose bid has been accepted by the purchaser and shall include the bidder's executives, administrators, successors and permitted assignees.
- 2.5 "Equipment" shall mean and include all machinery, apparatus, materials, and articles to be provided under the contract by the suppliers.
- 2.6 "Contract Price" shall mean the sum named in or calculated the bid.
- 2.7 "General Condition" shall mean these General Terms and Conditions of Contract.
- 2.8 "The Specification" shall mean both the technical as well as commercial parts of the specification annexed to or issued with GTCC and shall include the schedules and drawings, attached thereto as well as all samples and pattern, if any.
- 2.9 "Month" shall mean "Calendar month".
- 2.10 "Writing" shall include any manuscript, type written, printed or other statement reproduction in any visible form and whether under seal or under hand.
- 2.11 "Basic Price (Taxable value for Goods) at the point of destination" shall mean the price quoted by the bidder for equipment and material at the consignee's store/site. The cost is inclusive of packing, forwarding, freight, insurance and all expenses and taxes & duties at the end of

the supplier excluding Goods & Service Tax. The Goods & Service Tax shall be shown in a separate column item wise alongside the Basic Price quoted at the applicable rate in the Tax Invoice. The applicable rate of GST shall refer to the HSN code of the material supplied. The Basic Price and GST thereon shall be the “FOR Destination Price” as quoted by the bidder.

2.12 The term “Contract document” shall mean and include GTCC, specifications, schedules, drawings, form of tender, Notice Inviting Tender, covering letter, schedule of prices or the final General Conditions, any special conditions, applicable to the particular contract.

2.13 Terms and conditions not herein defined shall have the same meaning as are assigned to them in the Indian Contract Act, failing that in the Odisha General Clauses Act.

3. **Manner of execution:**

All equipment supplied under the contract shall be manufactured in the manner, set out in the specification or where not set out, to the reasonable satisfaction of the Purchaser’s representative.

4. **Inspection and Testing:**

[i] The purchaser’s representative shall be entitled at all reasonable times during manufacture to inspect, examine and test at the supplier’s premises, the materials and workmanship of all equipment/materials to be supplied under this contract and if part of the said equipment/material is being manufactured in other premises, the supplier shall obtain for the purchaser’s representative permission to inspect, examine and test as if the equipment/material were being manufactured in the contractor’s premises. Such inspection, examination and testing shall not relieve the supplier from his obligations under the contract.

[ii] The Supplier shall give to the purchaser adequate time/notice (at least clear 15 days for inside the state suppliers and 20 days for outside the state suppliers) in writing for inspection of materials indicating the place at which the equipment/material is ready for testing and inspection and shall also furnish the shop Routine Test Certificate, Calibration certificates of Testing instruments, calibrated in Govt. approved laboratory with authenticity letter of that laboratory along with the offer for inspection. A packing list along with the offer, indicating the quantity which can be delivered in full truck load/Mini truck load to facilitate issue of dispatch instruction shall also be furnished. There will be minimum 2 separate pre-dispatch inspection whenever delivery of materials/equipment will be in separate stages.

[iii] Where the contract provides for test at the Premises of the supplier or any of his sub-vendors, the supplier shall provide such assistance, labour, materials, electricity, fuel and

instruments, as may be required or as may be reasonably demanded by the Purchaser's representative to carry out such tests efficiently. The supplier is required to produce shop routine test Certificate, calibration certificates of Testing Instruments before offering their materials/equipment for inspection & testing. The test house/laboratory where tests are to be carried out must be approved by the Govt. A letter pertaining to Govt. approved laboratory must be furnished to the purchaser along with the offer for inspection.

- [iv] After completion of the tests, the Purchaser's representative shall forward the test results to the Purchaser. If the test results conform to the specific standard and specification, the Purchaser shall approve the test results and communicate the same to the supplier in writing. The supplier shall provide at least five copies of the test certificates to the Purchaser.
- [v] The Purchaser has the right to have the tests carried out at his own cost by an independent agency whenever there is dispute regarding the quality of supply.
- [vi] If the firm fails to present the offered items for inspection/testing as per their inspection call due to any reason(s) during the visit of inspecting officer at the testing site, the firm shall have to bear all expenses towards repetition of inspection and testing of the total offered quantity or part thereof.

5. **Training facilities.**

The supplier shall provide all possible facilities for training of Purchaser's Technical personnel, when deputed by the Purchaser for acquiring first hand knowledge in assembly of the equipment, its erection, commissioning and for its proper operation & maintenance in service, wherein it is thought necessary by the purchaser.

6. **Rejection of Materials.**

In the event any of the equipment / material supplied by the manufacturer is found defective due to faulty design, bad workmanship, bad materials used or otherwise not in conformity with the requirements of the Specification, the Purchaser shall either reject the equipment/material or ask the supplier in writing to rectify or replace the defective equipment/material free of cost to the purchaser. The Supplier on receipt of such notification shall either rectify or replace the defective equipment/material free of cost to the purchaser within 15 days from the date of issue of such notification by the purchaser. If the supplier fails to do so, the Purchaser may:-

- [a] At its option replace or rectify such defective equipment / materials and recover the extra costs so involved from the supplier plus fifteen percent and/or.

- [b] Terminate the contract for balance work/supplies, with enforcement of penalty Clause as per contract for the un-delivered goods and with forfeiture of Performance Guarantee/ Composite Bank guarantee.
- [c] Acquire the defective equipment/materials at reduced price, considered equitable under the circumstances.

7. Experience of Bidders:

The bidders should furnish information regarding experience particularly on the following points:

- [i] Name of the manufacturer:
- [ii] Standing of the firm and experience in manufacture of equipment/material quoted:
- [iii] Description of equipment/material similar to that quoted, supplied and installed during the last two years with the name(s) of the Organisations to whom supplies were made wherein, at least one (1) certificate shall be from a state/central P.S.U.
- [iv] Details as to where installed etc.
- [v] Testing facilities at manufacturer's works.
- [vi] If the manufacturer is having collaboration with another firm [s], details regarding the same.
- [vii] A list of purchase orders of identical material/equipment offered as per technical specification executed during the last two years along with users certificate. User's certificate shall be legible and must indicate, user's name, address, designation, place of use, and satisfactory performance of the equipment/materials for at least two years from the date of commissioning. Wherein at least one (1) certificate shall be from a State/Central or P.S.U. Bids will not be considered if the past manufacturing experience is found to be unsatisfactory or is of less than 2 (two) years on the date of opening of the bid and bids not accompanying user's certificate will be rejected..

8. Language and measures:

All documents pertaining to the contract including specifications, schedule, notices, correspondence, operating and maintenance instructions., drawings or any other writing shall be written in English language. The metric system of measurement shall be used exclusively in this contract.

9. Deviation from specification:

It is in the interest of the tenderers to study the specification, specified in the tender schedule

thoroughly before tendering so that, if any deviations are made by the Tenderers,(both commercial and Technical), the same are prominently brought out on a separate sheet under heading “Deviations Commercial” and “ Deviations Technical”.

A list of deviations shall be enclosed with the tender. Unless deviations in scope, technical and commercial stipulations are specifically mentioned in the list of deviations, it shall be presumed that the tenderer has accepted all the conditions, stipulated in the tender specification, not- withstanding any exemptions mentioned therein.

10. **Right to reject/accept any tender:**

The purchaser reserves the right either to reject or to accept any or all tenders if the situation so warrants in the interest of the purchaser. Orders may also be split up between different Tenderers on individual merits of the Tenderer. The purchaser has exclusive right to alter the quantities of materials/ equipment at the time of placing final purchase order. After placing of the order, the purchaser may defer the delivery of the materials. It may be clearly understood by the Tenderer that the purchaser need not assign any reason for any of the above action [s].

11. **Supplier to inform himself fully:**

The supplier shall examine the instructions to tenderers, general conditions of contract, specification and the schedules of quantity and delivery to satisfy himself as to all terms and conditions and circumstances affecting the contract price. He shall quote price [s] according to his own views on these matters and understand that no additional allowances except as otherwise provided there in will be admissible. The purchaser shall not be responsible for any misunderstanding or incorrect information, obtained by the supplier other than the information given to the supplier in writing by the purchaser.

12. **Patent rights Etc.**

The supplier shall indemnify the Purchaser against all claims, actions, suits and proceedings for the infringement of any patent design or copy right protected either in the country of origin or in India by the use of any equipment supplied by the manufacturer. Such indemnity shall also cover any use of the equipment, other than for the purpose indicated by or reasonably to be inferred from the specification.

13. **Delivery:-**

- [a] Time being the essence of the contract; the equipment shall be supplied within the delivery period, specified in the contract. The Purchaser, however, reserves the right to reschedule the delivery and change the destination if required. The delivery period shall be reckoned from the date of placing the Letter of Intent/Purchase order, as may be specified in LOI/Purchase order.

- [b] The desired delivery period shall be as indicated at Appendix-II (Quantity & Delivery Schedule) of Section-IV (Technical Specification).

14. **Despatch instructions.**

- I] The equipment / materials should be securely packed and dispatched directly to the specified site at the supplier's risk by Road Transport only.

II] **Loading & unloading of Ordered Materials.**

It will be the sole responsibility of the supplier for loading and unloading of materials both at the factory site and at the destination site/store.

The Purchaser shall have no responsibility on this account.

15. **Supplier's Default Liability.**

- [i] The Purchaser may, upon written notice of default to the supplier, terminate the contract in circumstances detailed hereunder.

- [a] If in the judgement of the Purchaser, the supplier fails to make delivery of equipment/material within the time specified in the contract or within the period for which if extension has been granted by the Purchaser in writing in response to written request of the supplier.

- [b] If in the judgement of the Purchaser, the supplier fails to comply with any of the provisions of this contract.

- [ii] In the event, Purchaser terminates the contract in whole or in part as provided in Clause-15 (I) of this section, the Purchaser reserves the right to purchase upon such terms and in such a manner as he may deem appropriate in relation to the equipment/material similar to that terminated and the supplier will be liable to the Purchaser for any additional costs for such similar equipment/material and/or for penalty for delay as defined in clause-22 of this section until such reasonable time as may be required for the final supply of equipment.

- [iii] In the event the Purchaser does not terminate the contract as provided in clause 15(I) of this Section, supplier shall be liable to the Purchaser for penalty for delay as set out in Clause-22 of this section until the equipment is accepted. This shall be based only on written request of the supplier and written willingness of the Purchaser.

16 **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 .

17. 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 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.

18. Guarantee period: - (As per clause 35 of the technical specification).

- [i] The materials covered by this specification should be guaranteed for satisfactory operation and against defects in design, materials and workmanship for a period of at least **36 [Thirty six] months** from the last date of delivery (In case of delivery in multiple stages, the last date of delivery of each stage delivery shall be considered for this purpose). The above guarantee certificate shall be furnished in triplicate to the purchaser for his approval. Any defect noticed during this period should be rectified/replaced by the supplier free of cost to the purchaser provided such defects are due to faulty design, bad workmanship or bad materials used, within one month upon written notice from the purchaser failing which provision of clause 22 (ii) shall apply.
- [ii] The supplier's liability shall be to the extent of repair/ replacement of such defective equipment/material either arising from faulty design or defective equipment/materials and or bad workmanship. Such defective equipment/materials shall be handed over to the supplier for repair or replacement by a new one, unless otherwise repairable at site. The supplier shall complete the repair/replacement work within the reasonable time frame (as mentioned in clause 22(ii) intimated by OPTCL.

If it becomes necessary for the supplier to replace or repair any defective portions of the equipment/materials the provision of this clause shall apply to portion of the equipment/materials so replaced or repaired until the expiry of the guarantee period.

19. B.G. towards security deposit, 100% payment and performance guarantee:

- [i] For manufacturers situated Inside & out side the state of Odisha.

A Composite Bank Guarantee as per the Proforma enclosed at Annexure-VII of the specification for 10% [ten percent] of the Total Landing cost (Taxable Value plus GST thereon) of the purchase order (In case of successful bidder who is a local Micro and small Enterprise(MSEs) (In the state of Odisha) registered with respective DICs, Khadi, Village, Cottage & Handicrafts Industries, OSIC and NSIC 5% (five percent) shall be furnished from any nationalized/scheduled bank having a place of business at Bhubaneswar, to the office

of Chief General Manager [Central Procurement Cell] OPTCL within 15 days from the date of issue of the purchase order,. The BG shall be executed on non-judicial stamp paper worth of Rs.29.00 [Rupees twenty nine] only or as per the prevalent rules, valid for a period of 2 months more than the guarantee period, for scrutiny and acceptance, failing which the supply order will be liable for cancellation without any further written notices. The BG should be accompanied by a confirmation letter from the concerned bank and should have provision for encashment at Bhubaneswar, before the Bank Guarantee is accepted and all concerned intimated. The B.G should be revalidated as and when intimated to you to cover the entire guarantee period.

- [ii] No interest is payable on any kind of Bank Guarantee.
- [iii] In case of non-fulfillment of contractual obligation, as required in the detailed purchase order/Specification, the composite Bank guarantee shall be forfeited.
- [iv] The performance bank guarantee should be submitted by the supplier within 01 month of issue of purchase order. However in case of segregation of delivery of materials in stages, the supplier shall submit single BG of specified amount as stated above on total award cost with validity of BG covering the entire guarantee period from the scheduled date of delivery of last stage plus 2 months.

20. Import License

In case imported materials are offered, no assistance will be given for release of Foreign Exchange. The firm should arrange to import materials from their own quota. Equipment of indigenous origin will be preferred.

21. (A) Terms of Payment.

i) 100% taxable value of each consignment with 100% Goods and Services Tax in full as applicable will be paid on receipt of materials in good condition at stores/desired site and verification thereof, subject to furnishing and approval of a. Contract cum Performance Bank Guarantee at the rate of 10% (Ten percent) of Taxable Value plus GST thereon [In case successful bidder is a local Micro and small Enterprise (MSEs), based in Odisha & registered with respective DICs, Khadi, Village, Cottage & Handicrafts Industries, OSIC and NSIC, **5% (five percent) in place of 10%** (ten percent) will be applicable].

b. Guarantee certificate, c. Test certificate by the Purchaser.

ii) TDS under GST Laws **and Income Tax Act** shall be deducted, if applicable.

iii) Any imposition of new tax or revision of tax shall be paid/reimbursed at the time of dispatch, scheduled or actual whichever is lower (i.e. If delivery is within schedule period, tax variation as applicable shall be paid, and if delivery is made beyond schedule date, any additional financial implication due to statutory variation in tax shall be to bidder's account)

[B] The supplier shall furnish contract cum performance Bank Guarantee of appropriate amount to OPTCL covering 10% of F.O.R. Destination cost of the purchase order as indicated in (i) above, within 30 days from the date of issue of the purchase order.

22 Price Reduction Schedule for Delay in Completion of Supply under Purchase Order/Contract

(i) If the Supplier fails to deliver the materials/equipment within the delivery schedule, specified in the Purchase Order/Contract including delivery time extension, if any, granted with waiver of Price Reduction Schedule, the Purchaser shall recover from the Supplier, Price Reduction Schedule for a sum of half per cent (0.5 per cent) of the Taxable Value of the un-delivered equipment /materials for each calendar week of delay or part thereof. For this purpose, the date of receipted challan shall be reckoned as the date of delivery. The total amount of Price Reduction Schedule shall not exceed five per cent (5%) of the Taxable Value of the un-delivered equipment/materials. Equipment will be deemed to have been delivered only when all its components, accessories and spares as per technical Specification are also delivered. If certain components, accessories and spares are not delivered in time, the equipment/materials will be considered delayed until such time as the missing components, accessories and spares are delivered.

(ii) During the guarantee period, if the Supplier fails to rectify/replace the equipment/material within 30 days from the date of intimation of defect by the purchaser, then the Price Reduction Schedule at the rate of half percent (0.5%) of the Total Taxable Value for each calendar week of delay or part thereof shall be recovered by the purchaser. For this purpose, Price Reduction Schedule shall be reckoned from the 30th day from the date of issue of letter on defectiveness of equipment/material. The total amount of Price Reduction Schedule in this case shall not exceed 10% (TEN PERCENT) of the Purchase Order/Contract amount except GST (i.e.Total Taxable Value). If the defects, so intimated are not rectified or equipment/materials not replaced by the supplier within the guarantee period, then whole of the C.P.B.G. will be forfeited by the purchaser, without any intimation to the supplier.

23. Insurance

The Supplier shall undertake insurance of stores covered by this Specification unless otherwise stated. The responsibility of delivery of the stores at destination in good condition rests with the Supplier. Any claim with the Insurance Company or transport agency arising due to loss or damage in transit has to be settled by the supplier. The Supplier shall undertake free replacement of materials damaged or lost, which will be reported by the consignee within 30 days of receipt of the materials at destination without awaiting for the settlement of their claims with the carriers and underwriters.

24. Payment Due from the Supplier.

All costs and damages, for which the supplier is liable to the purchaser, will be deducted by the purchaser from any money, due to the supplier, under any of the contract (s), executed with OPTCL.

25. Rating under Goods and Services Tax and Balance sheet and profit & Loss Account:

The following documents are to be submitted at the time of Tender Submission:

- i. Compliance rating under Goods and Services Tax for immediate preceding financial year.
- ii. Audited Balance Sheet and Profit & Loss Account of the bidder for the previous three years to assess the financial soundness of the bidder(s).
- iii. GST registration certificate and PAN Card Copy.
- iv. Tax holiday/exemption certificate under GST or any other Act.
- v. TDS exemption certificate under the Income Tax Act or any other act.

26. Certificate of Exemption from Goods and Services Tax.

Offers with exemption from Goods and Services Tax shall be accompanied with authenticated attested Photostat copy of exemption certificate. Any claim towards Goods and Services Tax shall be paid on actual basis subject to payment of GST by the supplier. In case Outward supply details of the supplier of Goods in GSTR-1 do not match with GSTR -2 of OPTCL on GSTN portal, the same will be adjusted through debit/credit advice issued by OPTCL under intimation to the supplier after allowing cooling period of 3 months after the date of supply.

27. Supplier's Responsibility.

Notwithstanding anything mentioned in the Specification or subsequent approval or acceptance by the Purchaser, the ultimate responsibility for design, manufacture, materials used and satisfactory performance shall rest with the Tenderers. The Supplier(s) shall be responsible for any discrepancy noticed in the documents, submitted by them along with the bid(s)

28. Validity.

Prices and conditions contained in the offer should be kept valid for a minimum period of **180** days from the date of opening of the tender, failing which the tender shall be rejected.

29. EVALUATION.

(i) Evaluation of price bids will be on the basis of the FOR DESTINATION PRICE including Goods and Services Tax & other levies as may be applicable.

The FORD PRICE shall consist of the following components

- a) Taxable value of equipment/materials

- b) Good and Services Tax
- c) Other levies, if any.
- d) Mandatory spares, if any for maintenance of equipment. (At discretion of the purchaser)
- e) Test charges, if any.
- f) Supervision of erection, testing and commissioning charges, if any.
- g) Any other items, as deemed proper for evaluation by the purchaser.
- h) Loading will be made for items not quoted by the bidder at the highest rate quoted by other bidders unless particular item is included in other items.
- i) Any imposition of new tax or revision of tax shall be considered between due date of submission of bids and the date of price bid opening.
- j) E-Reverse Auction Process shall be resorted to & details of the same shall be notified as corrigendum subsequently.

E-REVERSE AUCTION PROCEDURE SHALL BE ENSURED TO AS FOLLOWS:

STRATEGY FOR E-REVERSE AUCTION	
1	Bidders are required to go through the guide lines given below and submit their acceptance to the same.
2	E-Reverse Auction (RA) will be conducted in e-tender portal of OPTCL on specified date and time, while bidders shall quote from their own offices/places of their choice. Internet connectivity shall be ensured by the respective agencies/bidders themselves.
3	KEONICS shall arrange for demonstration/ training (if not trained earlier) of bidder's nominated person(s), to explain all the rules related to e-Reverse Auction/ Business Rule document to be adopted.
4	The strategy to be used for reverse auction shall be "DYNAMIC TEMPLATE BIDDING"
Procedure for electronic Reverse Auctioning (e-RA):	
5	<p>a. The e-RA shall be conducted on www.tenderwizard.com/OPTCL only.</p> <p>b. Bidder has to submit letter towards agreement to the Process related Terms & Conditions for e-Reverse Auction, as per (Reverse Auction Process Compliance Form at Annexure-XIX). In non-receipt of the same, vendors will not be allowed to participate in e-RA.</p> <p>c. e-RA shall be carried out after opening of Price bids and completion of Price bid evaluation, which will be intimated only to the techno-commercially qualified bidders by OPTCL as per procedure given below.</p> <p>d. OPTCL reserves the right to conduct e-RA and it is obligatory on part of bidder(s) invited to participate in e-RA process once they have responded to the techno-commercial bid.</p>
6	<p>Prior intimation/ Notice for RA invitation will be given to techno-commercially qualified bidders regarding the date & time of opening of the e-RA.</p> <p>The start bid price (SBP) for e-Reverse Auction of each bidder under a particular package shall be the L1 evaluated price for the subject package including Taxes & Duties for the total scope for subject Package. Taking the above discovered L1 price as the upper limit e-RA will be conducted to determine the lowest possible price.</p> <p>Reverse Auction will be conducted amongst first 50% of the technically qualified bidders arranged in order of prices from lowest to highest, as L1, L2, L3-----</p>

	<p>Ln, and L1 price will be discovered. Minimum of 3 bidders shall be eligible for e-RA. (eg. If 4 bidders are financially evaluated then the L1, L2 and L3 bidders shall be eligible for e-RA). Number of bidders eligible for participating in RA would be rounded off to next higher integer value if number of technically qualified bidders is odd (e.g. if 7 bids are technically qualified, then RA will be conducted amongst L1 to L4).</p> <p>However, in case only two bidders are found to be responsive, e-RA would be carried out with both the parties without any elimination. However, OPTCL reserves the right to invite the evaluated L1 bidder for negotiation without conducting the e-RA.</p> <p>In case of price submitted by any bidder is found to be abnormal, OPTCL reserves the right to reject the bid of the bidder(s) .</p> <p>Rank of bidders would be displayed as per the total cost to OPTCL, i.e including Taxes and Duties payable by OPTCL as per the provisions of the bidding document & after e-RA process is over.</p>
7	<p>Names of bidders/ vendors shall not be disclosed during the e-RA process. Names of bidders/ vendors shall be anonymously masked in the e-RA process.</p> <p>(i) In case of RA, start/ reference price and step value of decrement shall be indicated to the bidders at the start of the auction. Any participating bidder can bid one or multiple step decrement lower than the prevailing lowest bid at that time. The Bidder shall be able to view Bid Start Price, Bid Decrement Value, Prevailing Lowest Bid value, last Bid Placed by him and time left for bidding.</p> <p>(ii) The step value of decrement in a package to be offered by bidder (the minimum amount of reduction in the total bid price including all taxes & duties during auction) , shall be kept at 0.15% of L1 bidder's final evaluated price (or) at approved amount as decided by OPTCL.</p> <p>(iii) Bidders can only quote any value lower than their previous quoted price. However, at no stage, increase in Price will be permissible.</p> <p>(iv) At any point during Reverse Auction, bidding Price field shall remain enabled for the bidders. The reverse auction period shall be unlimited and the initial auction period (1st slot) will be of thirty (30) minutes with provision of auto extension by (10) ten minutes from the schedule/ extended closing time. If any fresh lower bid is received in last ten minutes of initial auction period or extended auction period, the auction shall get extended automatically for another 10 minutes. In case, there is no bid received during schedule/extended slot, the auction shall get closed automatically without further extension.</p> <p>(v) However, bidders are advised not to wait till the last minute or last few seconds to enter their bid during the period of e-reverse auction to avoid complication related with internet connectivity, network problem, system crash down, power failure etc.</p>
8	<p>After conclusion of e-Reverse Auction i.e (Closing Price in Reverse Auction will be taken as offered price by the L1 bidder), decrease in price of individual head of the template shall be considered proportionately on all individual line items of the respective head of the price schedule of the successful L1 bidder .</p> <p>Any bid received at the tender wizard server end subsequent to closure of the e-RA shall be summarily rejected and shall not be considered as a valid bid under whatsoever circumstances. For this purpose, tender wizard server log shall prevail.</p> <p>The bidder shall not involve himself or any of his representatives in price manipulation of any kind directly or indirectly by communicating with other bidders.</p> <p>During Reverse Auction, If no bid is received within the specified time, OPTCL, at its discretion, may decide to close the reverse auction process/ proceed with</p>

	conventional mode of tendering [Evaluation of Part-II (price bid) submitted by bidders earlier].
9	Consequent upon completion of e-Reverse Auction, OPTCL's decision on award of contract shall be final and binding on the bidders. OPTCL shall be at liberty to call the L1 bidder for further process/ negotiation and also at liberty to cancel the e-reverse auction process/ re-tender at any time, without assigning any reason thereof. OPTCL can decide to reschedule or cancel any reverse auction: the bidders shall be informed accordingly. OPTCL/ Service Provider shall not have any liability to bidders for any interruption or delay in access to the e-Tender site/ Reverse Auction link irrespective of the cause.

(II) Weightage shall be given to the Following factors in the Evaluation & Comparison of Bids.

In comparing bids and in making awards, the Purchaser will consider other factors such as compliance with Specification, minimum qualification criteria as per clause-30, outright rejection of tenders clause-34 of this tender, relative quality, adaptability of Supplies or services, experience, financial soundness, record of integrity in dealings, performance of materials/equipment earlier supplied, ability to furnish repairs and maintenance services, the time of delivery, capability to perform including available facilities such as adequate shops, plants, equipment and technical organization.

(III) The local MSE (In the state of Odisha) bidders shall be required to furnish their willingness to match their bid price with that of the lowest evaluated bidder without any price preference and in case they agree, they shall be eligible to get up to 30% of the tendered quantity to be distributed suitably among the willing MSE bidders failing which the said 30% of the tendered quantity be awarded to the lowest evaluated bidder.

30. Minimum Qualification Criteria of Bidders.

All the prospective bidders are requested to note that their bids for tendered equipment can only be considered for evaluation if:

- i) The bidder should have manufacture and supply experience of above rated or higher capacity equipment for a minimum period of 2 (two) years as on the date of opening of the tender
- ii) At least 50% of the tendered quantity of above rated or higher capacity equipment should have been supplied, erected, tested and commissioned within the above-stipulated period.[Note: "within above stipulated period:- within 2(two) years from the date of opening of this tender].
- iii) The above rated or higher capacity equipment should have at least 2 (two) years successful performance from the date of commissioning. At least one of the performance certificates shall be submitted from Govt. of India/State Govt.(s) or their undertakings.
- iv) The bidder should have conducted type tests on the tendered equipments in Government approved laboratory within five years from the date of opening of the tender.

Registration certificate of DPIIT:

As per Office Memorandum No.F.No.6/18/2019-PPD, Ministry of Finance, Dept. of Expenditure Public Procurement Division, New Delhi and Office Memorandum No. FIN-CON-MISC-0007/2019/27945/F Dated.16.10.2020 of Finance Department, Govt. of Odisha “Any bidder from a country which **shares a land border with India** will be eligible to bid in any procurement whether goods, services (Including consultancy services and non-consultancy services) or works (including turnkey projects) **only if the bidder is registered with the Competent Authority, DPIIT** (i.e. Department for Promotion of Industry and Internal Trade)”. Pursuant to decision of Govt. of India prescribing imposition of restriction on public procurement from bidders of certain countries on ground of defence of India or matters directly or indirectly related thereto, the Office Memorandum No. 4939/F, dated: 13.02.2012 of Finance Department, Govt of Odisha has been amended vide Office Memorandum No 27945 Dtd 16.10.2020 by inserting sub-para-3 (vii) to para-3 thereof. Prescribing the restriction on procurement made by the State Govt., State Public Sector Undertaking including local bodies etc. and directing no procurement shall be made in violation of such restrictions, it is hereby clarified that the provisions of the same shall be applicable for the tenders for works/procurement/Service in OPTCL in both ongoing (Techno-Commercial bid not opened) and future tenders.

The tender documents of OPTCL shall contain following additional clauses and certificate formats.

B. To be incorporated as qualifying requirement of bidder /certificates in case of tenders for Works (including Turn-key works)	
I.	Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority as per requirement of Govt. of India.
II.	“Bidder” (including the term ‘tenderer’, ‘consultant’ or ‘service provider’ in certain contexts) means any company, including any member of a consortium or joint venture (that is a company),
III.	“Bidder from a country which shares a land border with India” for the purpose of this Order means :- a. An entity incorporated, established or registered as company in such a country ; or b. A subsidiary company of an entity incorporated, established or registered in such a country ‘ or c. An entity substantially controlled through entities incorporated , established or registered in such a country ; or d. An entity whose beneficial owner is situated in such a country ; or e. An Indian (or other) agent of such an entity ; or f. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above.
IV.	The beneficial owner for the purpose of (iii)(d) above will be as under : 1. In case of a company the beneficial owner is the natural person(s), who, whether acting along or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.

<p>Explanation-</p> <p>a. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent of shares or capital or profits or the company.</p> <p>b. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreement;</p> <p>2. Where no natural person is identified under (1) above, the beneficial owner is the relevant natural person who hold the position of senior managing official ;</p> <p>V. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.</p> <p>VI. The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.</p>	<p style="text-align: center;">Certificate (to be furnished in bidder company's letter head)</p> <p>I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered. [Where applicable evidence of valid registration by the Competent Authority shall be attached.</p>
<p style="text-align: center;">C. To be incorporated as qualifying requirement of bidder /certificates in case of tenders for procurement of goods/services(including consultancy and non-consultancy)</p>	
<p>VI. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority as per requirement of Govt. of India</p> <p>VII. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated herein before, including any agency branch or office controlled by such person, participating in a procurement process.</p> <p>VIII. "Bidder from a country which shares a land border with India" for the purpose of this Order means :-</p> <p>h. An entity incorporated, established or registered in such a country ; or</p> <p>i. A subsidiary of an entity incorporated, established or registered in such a country ' or</p> <p>j. An entity substantially controlled through entities incorporated , established or registered in such a country ; or</p> <p>k. An entity whose beneficial owner is situated in such a country ; or</p> <p>l. An Indian (or other) agent of such an entity ; or</p> <p>m. A natural person who is a citizen of such a country ; or</p> <p>n. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above.</p> <p>IX. The beneficial owner for the purpose of (iii)(d) above will be as under :</p> <p>6. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting along or together, or through one</p>	

or more juridical person, has a controlling ownership interest or who exercises control through other means.

Explanation-

- c. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent of shares or capital or profits of the company.
 - d. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreement;
 - 7. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting along or together, or through one or more juridical person, has ownership or entitlement to more than fifteen per cent of capital or profits of the partnership ;
 - 8. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting along or together, or through one or more juridical person, his ownership or entitlement to more than fifteen per cent of the property or capital or profits of such association or body of individuals ;
 - 9. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who hold the position of senior managing official ;
 - 10. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen per cent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.
- X. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.

Certificate (to be furnished in bidder's letter head)

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered. [Where applicable, evident of valid registration by the Competent Authority shall be attached.]

31. Jurisdiction of the High Court of Orissa.

Suits, if any, arising out of this contract shall be filed by either Party in a court of Law to which the jurisdiction of High court of Orissa extends.

32. Correspondences.

- i) Any notice to the supplier under the terms of the contract shall be served by Registered Post or by hand at the Supplier's Principal Place of Business.
- ii) Any notice to the Purchaser shall be served at the Purchaser's Principal Office in the same manner.

33. Official Address of the Parties to the Contract

The address of the parties to the contract shall be specified:-

- [i] **Purchaser** : Senior General Manager (Procurement)(CPC) OPTCL

Bhubaneswar-751022 (Orissa)

Telephone No. 0674 - 2541801

FAX No. 0674 - 2542964

[ii] **Supplier:** Address

Telephone No.

Fax No.

34. Outright Rejection of Tenders

[i] The tenderer shall submit the bid in electronic mode only and shall submit the tender cost on or before the date and time of submission of technical bid. In case of local Micro and small Enterprises(MSEs)(In the state of Odisha) registered with respective DICs, Khadi, Village, Cottage & Handicrafts Industries, OSIC and NSIC participating in the tender they have to submit notarised hard copy of valid registration as local MSE as above on or before the date and time of submission of technical bid.

[ii] The tenderer shall submit the bid in electronic mode only

[iii] The Tender shall not be submitted telegraphically or by FAX.

[iv] The prescribed EMD shall be submitted on or before the date and time of submission of technical bid.

[v] The Tender shall be kept valid for a minimum period of 180 days from the date of opening of tender.

[vi] The Tender shall be submitted in two parts as specified.

[vii] The Tenders shall be accompanied by a list of major supplies effected prior to the date of opening of tender. Data of at least 2 (two) years shall be furnished.

[viii] The tenderer shall upload the scanned copy of latest type test certificates (for the tests, carried out on the tendered equipments, being offered). Such type tests should have been conducted within last five years from the date of opening of this tender in a Government approved laboratory/CPRI in presence of any Government Organisation's representative(s).

[ix] The schedule of prices should be filled up fully to indicate the break-up of the prices including taxes and duties. Incomplete submission of this schedule will make the tender liable for rejection. Vide Clause-4(ii) of Part-II..

[x] The Tenderer should quote 'FIRM' price only and the price should be kept valid for a minimum period of 180 days from the date of opening of the tender.

(xi) The tenderer shall upload the scanned copy legibly written user's certificate to prove the satisfactory operation of the offered equipments/materials for a minimum period of 2 (two) years from the date of commissioning/use as per the tender specification. User's certificate shall include the detailed address of the user with Equipment/Material, Name and type as per this specification, number of years of satisfactory use/operation & date of issue of this user's certificate with official seal written in English only & clearly visible must be furnished. At least one of the user's certificates shall be from state or Central Govt. or their Undertakings.

(xii) Guaranteed Technical particulars & Abstract of terms and Conditions should be filled in completely.

(xiii) (a) Detailed information on any litigation or arbitration arising out of contract completed or under execution by it over the last five years. A consistent history of litigation by or against the bidder may result in rejection of bid.

(b) The bidder should not have any pending litigation or arbitration with OPTCL with regard to any project or related activity. The bidder should certify/declare the same in unequivocal terms by way of an affidavit duly sworn before a magistrate/notary. Bid furnished by the bidder shall not be eligible for consideration if it is not accompanied by the affidavit. Further, the bid/LOA/LOI shall liable for outright rejection/cancellation at any stage if any information contrary to the affidavit/declaration is detected.

35. Documents to be treated as confidential.

The supplier shall treat the details of the specification and other tender documents as private and confidential and these shall not be reproduced without written authorization from the Purchaser.

36. Scheme/Projects

The materials/equipment covered in this specification shall come under “O&M WORKS

SECTION – III.

LIST OF ANNEXURES

[I TO XIII]

The following schedules and proforma are annexed to this specification and contained in Section-III as referred to in the relevant clauses.

1	Declaration form	ANNEXURE-I
2	Reverse Auction Process Compliance Form	ANNEXURE-IB
3	Abstract of terms and conditions to accompany Section-II of Part-I	ANNEXURE-II
4	Schedule of Quantity and Delivery	ANNEXURE-III
5	Abstract of price component [to accompany Part-II of this specification]	ANNEXURE-IV
6	Schedule of prices to accompany Part-II	ANNEXURE-V
7	Bank Guarantee form for earnest money deposit	ANNEXURE-VI
8.	Composite Bank Guarantee form for security deposit, payment and performance	ANNEXURE-VII
9.	Chart showing particulars of E.M.D.	ANNEXURE – VIII
10.	Data on Experience.	ANNEXURE – IX
11.	Schedule of spare parts.	ANNEXURE-X
12.	Schedule of Installations.	ANNEXURE-XI
13	Schedule of deviations (Technical)	ANNEXURE-XII (A)
14	Schedule of deviations (Commercial)	ANNEXURE-XII (B)

15	Litigation/Arbitration	ANNEXURE-XIII
16.	Affidavit of bidder	ANNEXURE-XIV
17	DPIIT Certificate	ANNEXURE-XV

ANNEXURE - I

DECLARATION FORM

To

The Chief. General Manager (CPC)

OPTCL Head Qrs.BBSR,751022

Sub:- Tender Specification No-_____

Sir,

1. Having examined the above specification together with terms & conditions referred to therein * I/We the undersigned hereby offer to supply the materials/equipment covered therein complete in all respects as per the specification and General conditions, at the rates, entered in the attached contract schedule of prices in the Tender.
2. * I/We hereby undertake to have the materials/equipment delivered within the time specified in the Tender.
3. * I/We hereby guarantee the technical particulars given in the Tender supported with necessary reports from concerned authorities.
4. * I/We certify to have submitted the bid electronically by remitting /D.D./ remitting the cost of tender, herewith and this has been acknowledged by your letter/ money receipt No.

Dated,

5. In the event of Tender, being decided in *my/our favour, * I/We agree to furnish the Composite B.G. in the manner, acceptable to ODISHA POWER TRANSMISSION CORPORATION LTD., and for the sum as applicable to *me/us as per clause-19 of section-II of this specification within 15 days of issue of letter of intent/purchase order failing which *I/We clearly understand that the said letter of Intent/Purchase order will be liable to be withdrawn by the purchaser, and the EMD deposited by us shall be forfeited by OPTCL.

Signed this day of 2016.

Yours faithfully

Signature of the Tenderer with seal of the company

[This form should be dully filled up by the tenderer and uploaded at the time of submission of tender.]

* (Strikeout whichever is not applicable).

ANNEXURE-IB
(Reverse Auction Process Compliance Form)

(To be incorporated in the bid document).

(To be submitted on letter head of the bidding company with sign and stamp and along with Technical bid)

To,
Sr. General Manager (CPC), OPTCL
Bhubaneswar-751010, Odisha

Sub: Agreement to the Process related Terms & Conditions for e-Reverse Auction.
Dear Sir,

This letter is to confirm that:

- The undersigned is authorized representative of the company.
- We have studied the Commercial Terms and the Business rules governing the Reverse Auction as mentioned in your tender and confirm our agreement to that.
- We also confirm that we have gone through the auction manual and have understood the functionality of the same thoroughly.
- We, hereby, confirm that we will honour the Bids placed by us during the tendering/ e- Reverse auction process as called as e-RA.
- We also confirm that we will accept our Rank / Position that will be displayed when the Bidding Time for the Online Reverse Auction is over.

With regards,

Signature with Designation with company seal Name & Address
Person having power of attorney for the subject package.

ANNEXURE-II

ABSTRACT OF GENERAL TERMS AND CONDITIONS OF CONTRACT**[COMMERCIAL]****(To be filled up by the tenderer as indicated in the excel sheet)**

1	Whether the material/equipment offered conforms to the OPTCL'S specification (If not, specify the deviations in Annexure).	Yes/No
2.a.i	Cost of Tender Document:	Submitted/Not submitted
2.a.ii	OPTCL Money Receipt No. & Date / D.D No & Date.	
2.b.i	Earnest money furnished.	Submitted/Not submitted
2.b.ii	Bank Guarantee No. & Date / D.D No. & Date.	
2.c.i	Tender Processing Fee:	Submitted/Not submitted
2.c.ii	D.D No. & Date.	
3	Manufacturer's supply experience including user's certificate uploaded or not. [As per clause No.7 of Section-II.]	Yes/No
4.a.i	Commercial Deviations to the specification if any	Yes/No
4.a.ii	If Yes, [list uploaded or not, As per clause-9 of the Section-II]	Yes/No
4.b.i	Technical Deviations to the specification if any	Yes/No
4.b.ii	If Yes, list uploaded or not, As per clause-9 of the Section-II	Yes/No
5	<u>Delivery (Period in months from the date of issue of PO)</u>	
6	Guarantee: - Whether agreeable to OPTCL's terms[As per clause-18 of Section-II].	Yes/No
7	Whether agreeable to furnish Composite B.G. in case his tender be successful [As per clause-19 of Section-II]	Yes/No
8	Terms of payment:- Whether agreeable to OPTCL's terms or not [As per clause-21 of Section-II]	Yes/No
9	Nature of price:- FIRM	Yes/No
10	Price Reduction: - Whether agreeable to OPTCL's terms or not (As per clause- 22 of Section-II)	Yes/No
11	Whether STCC/ P&L A/C, Balance Sheet for the required period are uploaded as per clause-25 of Section-II	Yes/No
12	Validity: - Whether agreeable to OPTCL's terms or not[As per clause-28 of Section-II]	Yes/No
13	Whether recent type test certificates from any Government approved laboratory is uploaded or not. [As per clause-30[viii] of section-II]	Yes/No
14	Whether guaranteed technical particulars are uploaded or not	Yes/No
15	Whether dimensional design/drawings uploaded or not	Yes/No
16	Whether materials are ISI/ISO marked.	Yes/No
17	Manufacturer's name and its trademark	
18	Whether registered under GST Laws.	Yes/No
19	Whether declaration form, duly filled in, uploaded or not	Yes/No

Signature of Tenderer with seal of Company

ANNEXURE-III**SCHEDULE OF QUANTITY AND DELIVERY**

(To be filled up by the tenderer)

SL No	Description of materials	Quantity required	Desired Delivery	Destinati on	Remarks.
1	2	3	4	5	6

Signature of Tenderer with seal of Company

ANNEXURE-IV

(To be filled up by the tenderer as indicated in the excel sheet)

Sl.No.	Description	To be filled by the bidder.
1	Price basis	F.O.R. Purchaser's destination Stores/site.(Taxable value including packing forwarding, Freight, Insurance, unloading)
2	HSN Code of the Item	
3	GST Identification Number (GSTIN) of the firm	
4	Whether Intra-state supply(i.e. from inside Odisha) or Inter-state supply(i.e from outside Odisha). select from dropdown list	
5	Rate of CGST	
6	Rate of OGST.	
7	Rate of IGST.	
8	Rate of Goods and Services Tax on supervision of erection testing and commissioning	
9	Nature of price.	
10	We hereby undertake and declare that implication of lower Tax and Input Tax Credit benefit as per anti-profiteering (under Section 171 of CGST Act) and other provisions under GST Laws have been fully passed on to the purchaser while quoting the price.	Agreed
11	Any imposition of new tax or revision of tax shall be paid/reimbursed at the time of dispatch, scheduled or actual whichever is lower (i.e. If delivery is within schedule period, tax variation as applicable shall be paid, and if delivery is made beyond schedule date, any additional financial implication due to statutory variation in tax shall be to bidder's account). (Indicated- Yes/No)	

NB:- Abstract of price component shall be done for equipment/material offered, for testing & commissioning charges, if any. All the above prices will be taken during bid price evaluation.

Place:

Signature of the Bidder

Date:

with seal of the company.

NB:- Abstract of price component shall be done for equipment/material offered, for testing & commissioning charges, if any. All the above prices will be taken during bid price evaluation.

ANNEXURE-V.

(To be filled up by the tenderer as indicated in the excel sheet)

NB: -

1. The tenderer should fill up the price schedule properly in Excel file in e-tender mode. The tender will be rejected, if the price bid is not submitted in accordance with the price schedule. No post tender correspondence will be entertained on break-up of prices. Also, the supplier should agree for delivery at the desired site.
2. The Tenderer shall give an undertaking in part-I of the bid that, entire implication of lower Tax and Input Tax Credit benefit have been fully passed on to the purchaser as per anti-profiteering and other provisions under GST Laws while quoting the tender price.
3. Conditional offers will not be acceptable.

ANNEXURE-VI

[PROFORMA FOR BANK GUARANTEE FORM FOR EARNEST MONEY DEPOSIT]

(To be Stamped in accordance with Stamp Act and the Non-Judicial Stamp Paper of appropriate value should be in the name of Issuing Bank)

Ref No:

Bank Guarantee No.

Date:.....

BG Amount:.....

Validity Period:.....

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, Bhubaneswar, a company constituted under the Companies Act-1956 (hereinafter called OPTCL) has invited Tender vide e-NIT No..... Dated..... for the purpose of work under Package(s) No...../ purchase of ----- .

1. Now, therefore, in accordance with Notice Inviting Tender (e-NIT) No..... Dated of OPTCL, Ms/Shri.....Address..... Wish / wishes to participate in the said tender and as a Bank Guarantee for the sum of Rs..... [Rupees in **words**-----] valid for a period ofdays is required to be submitted by the bidder, as per Tender Specification, we the) [indicate the name, Address & Code of the bank] [hereinafter referred to as "Bank"] at the request of Ms/Shri..... [hereinafter referred to as "Bidder"] do hereby unequivocally and unconditionally guarantee and undertake to pay during the above said period on written request by the <Tender Issuing Authority, Central Procurement Cell (CPC) ODISHA POWER TRANSMISSION CORPORATION Ltd. , Bhubaneswar an amount not exceeding Rs..... to OPTCL., without any reservation. The guarantee would remain valid up to [Date] and if any further extension to this is required, the same will be extended on receiving instruction from ----- on whose behalf this Bank Guarantee has been issued.

2. We, the [indicate the name of the Bank, Address, Code] do hereby further undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from OPTCL. 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..... (Rupees in words.....)

3. We undertake to pay to OPTCL any money so demanded notwithstanding any dispute or disputes so raised by the bidder in any suit or proceeding instituted/pending before any court or tribunal relating thereto, our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment thereunder and the bidder 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 [in words]..... (as per Tender Specification) and it shall continue to be so enforceable till all the dues of OPTCL under or by virtue of the said Bid have been fully paid and its claims satisfied or discharged or till OPTCL certifies that the terms and conditions of the said Bid have been fully and properly carried out by the said bidder and accordingly discharges this guarantee. 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 _____ we shall be discharged from all liability under this guarantee thereafter.
5. We the _____ Bank further agree with OPTCL 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 of performance by the said Bidder from time to time or to postpone for any time or from time to time any of the powers exercisable by OPTCL against the said Bidder 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 granted to the Bidder or for any forbearance, act or omission on the part of OPTCL or any indulgence by OPTCL to the said Bidder or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have the effect of so relieving us.
- 6 This guarantee will not be discharged due to the change in the name, style and constitution _____ of the Bank and/or of the Bidder.
- 7 We _____ [indicate the name of Bank, Address & Code] lastly undertake not to revoke this guarantee during its currency except with the previous consent of OPTCL in writing .
8. We, the _____ Bank (Name, Address & Code) further agree that this guarantee shall also be invokable at our place of business at ---- Branch of **Bhubaneswar** (indicate Name, Address & Code of the Branch at Bhubaneswar) in the State of Odisha.”

“ Notwithstanding anything contained herein”

- a) Our liability under the bank guarantee shall not exceed Rs.------(Rupees in words-----) 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 (ICICI Bank Bhubaneswar, IFSC Code ICIC0000061).

Dated, the _____ Day of _____

For _____ [Indicate name of Bank]

Signature
Full name
Designation
Power of Attorney No.
Date.....
Seal of the Bank.....

WITNESS: (SIGNATURE WITH NAME AND ADDRESS)

(1)
Signature
Full name
(2)
Signature
Full name

N.B.:

1. Name of the Bidder.:
2. BG No & Date :.....
3. Amount (In Rs.):.....
4. Validity up to :.....
5. E-NIT No.....
6. Package/Works 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.

Format for SFMS details

(The Unique Identifier for field 7037 is “OPTCL541405793”)

Sl. No	PARTICULARS	TYPE	DETAILS
1	Type of Bank Guarantee	Mandatory	EMD
2	Currency & Amount	Mandatory	
3	Validity Period(from—to --)	Mandatory	
4	Effective Date	Mandatory	
5	End date of lodgment of Claim	Mandatory	
6	Place of lodgment of claim	Mandatory	Bhubaneswar, Branch Name----- of Bhubaneswar Branch code----- of Bhubaneswar Branch Address ----- at Bhubaneswar
7	Issuing Branch IFSC Code	Mandatory	
8	Issuing Branch name & address	Mandatory	
9	Name of applicant and its details	Mandatory	
10	Name of Beneficiary and its details	Mandatory	
11	Beneficiary's Bank/Branch and IFSC Code	Mandatory	ICICI Bank Ltd IFSC Code- ICIC0000061
12	Beneficiary's Bank/Branch name and address	Mandatory	ICICI Bank Ltd Bhubaneswar Main Branch, Bhubaneswar
13	Sender to receiver information	Mandatory	
14	Purpose of Guarantee	Mandatory	EMD
15	Reference/Description of the underlined tender/contract	Mandatory	NIT No

ANNEXURE-VII

[PROFORMA FOR COMPOSITE BANK GUARANTEE FOR SECURITY DEPOSIT

PAYMENT AND PERFORMANCE]

(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:.....

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, Bhubaneswar, 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..... (herein after called “the Agreement”) to M/s/Shri , Address..... (herein after called the “Contractor”) for supply, erection, installation & commissioning and associated civil works under the above LoA and whereas OPTCL has agreed (1) to exempt demand of security deposit under the terms and conditions of the LOA (2) to release payment of the cost of the Contract Price to the Contractor 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 accordance with the terms and conditions of LOA No. _____ dated _____ 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 .
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. 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. _____ (Rupees----- ----- In Words).
3. We, the Bank also undertake to pay to OPTCL any money so demanded notwithstanding 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 thereunder 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 discharges this guarantee.

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 any 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 the 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 and/or of the contractor(s).

7. 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.

8. 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.

“ Notwithstanding anything contained herein”

- a) Our liability under the bank guarantee shall not exceed Rs.------(Rupees in words-----) 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 (**ICICI Bank Bhubaneswar**, IFSC Code ICIC0000061).

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 of Bhubaneswar Branch of the Issuing Bank:.....
10. The Bank Guarantee shall be accepted after getting SFMS advice as per details below.

Format for SFMS details**(The Unique Identifier for field 7037 is “OPTCL541405793”)**

Sl. No	PARTICULARS	TYPE	DETAILS
1	Type of Bank Guarantee	Mandatory	Contract Performance
2	Currency & Amount	Mandatory	
3	Validity Period(from—to --)	Mandatory	
4	Effective Date	Mandatory	
5	End date of lodgment of Claim	Mandatory	
6	Place of lodgment of claim	Mandatory	Bhubaneswar, Branch Name----- of Bhubaneswar Branch code----- of Bhubaneswar Branch Address ----- at Bhubaneswar
7	Issuing Branch IFSC Code	Mandatory	
8	Issuing Branch name & address	Mandatory	
9	Name of applicant and its details	Mandatory	
10	Name of Beneficiary and its details	Mandatory	
11	Beneficiary's Bank/Branch and IFSC Code	Mandatory	ICICI Bank Ltd IFSC Code- ICIC0000061
12	Beneficiary's Bank/Branch name and address	Mandatory	ICICI Bank Ltd Bhubaneswar Main Branch, Bhubaneswar
13	Sender to receiver information	Mandatory	
14	Purpose of Guarantee	Mandatory	Contract Performance
15	Reference/Description of the underlined tender/contract	Mandatory	LOA No----

N.B. : To be Stamped in accordance with Stamp Act and the Non-Judicial Stamp Paper of appropriate value should be in the name of Issuing Bank

ANNEXURE-VIII

CHART SHOWING PARTICULARS OF EARNEST MONEY DEPOSIT
FURNISHABLE BY TENDERERS

1.	Central and State Government Undertakings	Exempted
2.	All other inside & outside state units.	The amount of EMD as specified in the specification /Tender Notice in shape of bank guarantee /DD.

NB: - REFUND OF E.M.D.

- [a] In case of unsuccessful tenderers, the EMD will be refunded immediately after the tender is decided. In case of successful tenderer, this will be refunded only after furnishing of Composite Bank Guarantee referred to in clause No.19 of Section-II of this specification.

Suits, if any, arising out of EMD shall be filed in a court of law to which the jurisdiction of High Court of ODISHA extends.

- [b] Earnest Money will be forfeited if the tenderer fails to accept the letter of intent/purchase order, issued in his favour or revises the bid price[s] within the validity period of Bid.

ANNEXURE-IX

DATA ON EXPERIENCE

- [a] Name of the manufacturer.
- [b] Standing of the firm as manufacturer of equipment quoted.
- [c] Description of equipment similar to that quoted [supplied and installed during the last two years with the name of the organizations to whom supply was made].
- [d] Details as to where installed etc.
- [e] Testing facilities at manufacturer's works.
- [f] If the manufacturer is having collaboration with another firm, details regarding the same and present status.
- [g] A list of purchase orders, executed during last three years.
- [h] A list of similar equipment of specified MVA rating, voltage class, Impulse level, short circuit rating, Designed, manufactured, tested and commissioned which are in successful operation for at least two years from the date of commissioning with legible user's certificate. User's full complete postal address/fax/phone must be indicated. (Refer clause No.7 of the Part-I, Section-II of the specification).

Place:

Date:

Signature of tenderer

Name, Designation, Seal

ANNEXURE-X

**SCHEDULE OF SPARE PARTS FOR FIVE YEARS OF NORMAL OPERATION &
MAINTENANCE**

SL. No	Particulars	Quantity	Unit delivery rate	Total price

Place:

Date:

Signature of Tenderer

Name, Designation, Seal

ANNEXURE-XI**SCHEDULE OF INSTALLATIONS.**

Details of equipment, offered	Rated Voltage	Place of installation and complete postal address	Year of commissioning

Place: -

Date

Signature of Tenderer:

Name, Designation, Seal

ANNEXURE-XII

DEVIATION SCHEDULE.

Tenderer shall enter below particulars of his alternative proposal for deviation from the specification, if any.

A) Technical deviations

(To be filled up by the tenderer as indicated in the excel sheet)

B) Commercial deviations.

(To be filled up by the tenderer as indicated in the excel sheet)

Place: -

Date

Signature of Tenderer:

Name, Designation, Seal

ANNEXURE – XIII**LITIGATION HISTORY**

Year.	Award for or against bidder	Name of client, cause of litigation and matter in dispute	Disputed amount (current value in Rs.)

Place: -

Date

Signature of Tenderer:

Name, Designation, Seal

ANNEXURE-XIV**AFFIDAVIT OF BIDDER****(To be submitted in a non-judicial stamp paper of appropriate value)**

BEFORE Sri/, Notary, At-.....

.....

Affidavit

WHEREAS the Odisha Power Transmission Corporation Ltd., Bhubaneswar(OPTCL) has floated its Tender No.....inviting bids from eligible bidder to execute the work of.....

AND WHEREAS M/s..... (Briefly "Bidder") has offered its bid onin response to the said Tender No.....of the OPTCL expressing its interest to execute the work as specified therein.

AND WHEREAS the said Tender No..... of OPTCL requires the Bidder to solemnly affirm the correctness of the document and information furnished in its bid, so offered to OPTCL.

NOW THEREFORE, in response to the requirement, the Tender No..... of OPTCL, and having been duly authorized by the Bidder, I Sri/ Mrs. aged about years, Son/Daughter/Wife of Sri/Mrs., At present working as..... of M/s..... (The Bidder) do hereby solemnly affirm and state as follows:

1. That I am competent and have been duly authorized by the Bidder M/s..... to swear this affidavit on its behalf.
2. That the documents and information furnished by the Bidder in its bid offered in respect to the said Tender No.....of OPTCL are true and

correct.

3. That in the event any document and information as furnished by the Bidder in response to the said Tender No of OPTCL is found/ considered by the OPTCL at any time as to be not correct/ wrong, the OPTCL shall be competent and at liberty without any show cause to the Bidder to terminate its contract/ agreement With the Bidder, if any.
4. The OPTCL shall also be competent, without any reference to the Bidder, to black list the Bidder and debar the Bidder from participating in any other Tender of OPTCL pursuant to its consideration/ finding that the Bidder has furnished any incorrect/ wrong document and information tendered/made pursuant to Tender No..... of OPTCL.
5. That the affirmation made herein above is/are correct and true and nothing Stated herein is false.

Identified by

DEPONENT

ADVOCATE

ANNEXURE-XV

Certificate (to be furnished in bidder company's letter head)

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered. [Where applicable evidence of valid registration by the Competent Authority shall be attached.]

Authorized signatory

Company seal

PART – II
PRICE BID

1. PRICE:

(i) Bidders are required to quote their price(s) for goods offered indicating they are 'FIRM'

(ii) The prices quoted shall be FOR Destination only at the consignee's site/store inclusive of packing, forwarding, Freight & Insurance. In addition, the break-up of FOR Destination price shall be given as per schedule of Prices in Annexure-V of Section – III. The Bidders has to certify in the price bid that any implication of lower Tax and Input Tax Credit benefit as per anti-profiteering and other provisions under GST Laws, have been fully passed on to the Purchaser, while quoting the tender prices.

2. INSURANCE:

Insurance of materials/equipment, covered by the Specification should normally be done by the Suppliers with their own Insurance Company unless otherwise stated. The responsibility of delivery of the materials/equipment at destination stores/site in good condition rests with the Supplier. Any claim with the Insurance Company or Transport agency arising due to loss or damage in transit has to be settled by the Supplier. The Supplier shall undertake free replacement of equipment/materials damaged or lost which will be reported by the Consignee within 30 days of receipt of the equipment/materials at Destination without awaiting for the settlement of their claims with the carriers and underwriters.

3. CERTIFICATE FOR EXEMPTION FROM GOODS AND SERVICES TAX:

Offers with exemption from Goods and Services Tax shall be accompanied with authenticated proof of such exemption. Authenticated proof for this clause shall mean Photostat copy of exemption certificates, attested by Gazetted Officers of State or Central Government.

4. PROPER FILLING UP OF THE PRICE SCHEDULE:

The Bidders should fill up the price schedule (Annexure-V of Section-III) properly and in full. The tender may be rejected if the schedule of price is submitted in incomplete form as per clause-34 (ix) of Section-II of the Specification.

5. NATURE OF PRICE INDICATED IN SPECIFICATION SHALL BE FINAL.

The nature of price indicated in the Clause-13, Section – I of PART –I of the Specification shall be final and binding.



ODISHA POWER TRANSMISSION CORPORATION
LIMITED

**TECHNICAL SPECIFICATION
FOR**

**220KV/132KV/33KV
PORCELAIN/ POLYMER HOUSING INDUCTIVE
VOLTAGE TRANSFORMER**

1. IMPORTANT INSTRUCTION:

Please read the following instructions carefully before submitting your bid:

- 1.1** All the drawings, i.e. dimension, elevation, side view, front view, plan, cross sectional view, isometric view, important component drawing etc., in PDF along with AutoCAD format and manuals(Technical/Installation/Operation) in PDF format, for offered item shall be submitted. The hard copies as per specification also shall be submitted.
- 1.2** The acceptability of Type Test reports submitted by any bidder/EPC shall be strictly in adherence to the broad guidelines mentioned in clause no. 2 of “CEA guidelines for the validity period of Type Tests conducted on major electrical equipment of power transmission system” published in May 2020.
- 1.3** The Bidder/EPC shall have to submit all the required type test reports for the offered item along with the accessories. In case of submission of soft copy of type test report, high resolution colour scan of the original test report must be submitted. Scanned copy of Xerox of type test reports shall not be entertained. If required, the firm has to show the original type test report for the purpose of verification. In absence of this, the evaluation shall be carried out accordingly as non-submission of type test reports. The type test report of Inductive voltage Transformer submitted by the manufacturer shall be considered valid if the date of type test does not exceed 10 years as on the last date of submission of bid; provided:-
There is no major changes introduced in the basic design/technology/material/mechanical/construction/functionalities/performance characteristics/manufacturing process of the equipment.
OR
Until the relevant IS/IEC / statutory guidelines is revised which warrants fresh type tests because of introduction of new type tests even though there is no change in material/basic design of the equipment.
- 1.4** The Bidder/EPC must fill up all the point of GTP for offered item/s. Instead of indicating “refer drawing, or as per IS/IEC”, the exact value/s must be filled in. All the points other than GTP, which are asked to confirm in technical specifications must be submitted separately with the bid.
- 1.5** The Bidder/EPC is required to impart training in view of manufacture, assembly, erection, operation and maintenance for offered item, at his works, to the person/s identified by OPTCL, in the event of an order, free of cost. The cost of logistics will be borne as per the clauses of respective purchase orders/work orders.
- 1.6** The discrepancies between the specification and the catalogues or literature, submitted as part of the offer OR with prevalent standards/Govt. guidelines shall not be considered as valid deviations unless otherwise the same deviations related to TS is brought out separately by the Bidder/EPC in the pre-bid queries or in form of clarification. If any modification felt necessary to improve performance, efficiency and utility of equipment, the same must be submitted along with Pre-Bid Queries with reasons duly supported by documentary evidences and such modifications, not mentioned in Pre-bid queries, will not be considered.
- 1.7** For purpose of Agreement, the firm shall provide warranty as specified in the purchase order / tender document. Notwithstanding the foregoing, Supplier

agrees to waive the expiration of the Warranty Period in the event where in a pattern of defect/trend of failure is observed after the Warranty Period in a significant portion of the supplied quantity, or any critical defect discovered which, in Purchaser's opinion, constitutes a threat of damage to property or to the health and safety of any person.

- 1.8** Warranty certificate for purchase of any material, whether directly procured by OPTCL or EPC agency, shall be issued directly in favour of OPTCL.

2. SCOPE:

- 2.1** This Specification provides for the design, manufacture, inspection and testing before dispatch, packing and delivery F.O.R. (destinations) of Inductive voltage transformer and other accessories as specified here in.

Following is the list of documents constituting this Specification. :

(i)	Technical Specification (TS)	-
(ii)	Technical Requirements	Appendix-I
(iii)	Quantity and delivery schedule	Appendix-II
(iv)	Guaranteed Technical Particulars	Annexure-A
(v)	Calibration Status of testing equipment and meters/Instruments.	Annexure-B
(vi)	Check-list towards Type Test Reports.	Annexure-C
Note: Annexure-A, B &C are to be filled up by the Bidder/EPC.		

- 2.2** All the above along with amendments thereof shall be read and interpreted together. However, in case of a contradiction between the Technical Specification and any other volume, the provisions of this volume will prevail.

- 2.3** The Inductive Voltage Transformer shall conform in all respects to high standards of engineering, design, workmanship and latest revisions of relevant standards at the time of offer and purchaser shall have the power to reject any work or materials, which in his judgment is not in full accordance therewith.

3. STANDARDS:

Except to the extent modified in the Specification, the Inductive Voltage Transformer shall confirm to the latest editions and amendments of the standards listed hereunder.

STD	DESCRIPTION
IEC 61869-1/ IS 16227-1	<i>Instrument transformers —Part 1: General requirements</i>
IEC 61869-3/ IS 16227-3	<i>Instrument transformers —Part 3: Additional Requirements for Voltage Transformers</i>
IS 335	<i>New insulating oil</i>
IS 613	<i>Copper rods and bars for electrical purposes</i>
IS 2071-1	<i>Methods of high voltage testing</i>
IS/IEC 60060	<i>High-Voltage Test Techniques</i>
IS/IEC 60137	<i>Bushings for alternating voltages above 1 000 Volts</i>
IS/IEC 60947	<i>Low-voltage switchgear and control gear</i>
IEC 60529	<i>Degrees of protection provided by enclosures (IP) code</i>
IS/IEC 60071	<i>Insulation coordination</i>
IS:3347	<i>Dimensions of Porcelain Transformer Bushing</i>
IS 9676	<i>Reference ambient temperature for electrical equipment</i>
IS/IEC TR 62271-301	<i>High-voltage switchgear and control gear – Part 301: Dimensional standardization of high-voltage terminals</i>

IS-4146	<i>Application guide for voltage transformers.</i>
IEC 60567	<i>Oil-filled electrical equipment – Sampling of gases and of oil for analysis of free and dissolved gases – Guidance</i>
IEC TS 60815	<i>Selection and dimensioning of high-voltage insulators intended for use in polluted conditions</i>
IEC 62155	<i>Hollow pressurized and unpressurized ceramic and glass insulators for use in electrical equipment with rated voltages greater than 1 000 V</i>
IEC 61462	<i>Composite hollow insulators – Pressurized and unpressurized insulators for use in electrical equipment with rated voltage greater than 1 000 V – Definitions, test methods and acceptance criteria and design recommendations</i>
IEC 62217	<i>Polymeric HV insulators for indoor and outdoor use - General definitions, test methods and acceptance criteria</i>
IS 2629	<i>Recommended Practice for Hot-Dip Galvanizing of Iron and Steel</i>

Note:

Inductive Voltage Transformer with the requirement of other authoritative standards, which ensure equal or better quality than the standards, mentioned above shall also be acceptable. Where the equipment offered by the supplier confirms to other standards, salient points of difference between the standards adopted and the specified standards shall be clearly brought out in the offer. 4 (Four) copies of the reference standards in English language shall be furnished along with the offer.

4. TOPOGRAPHICAL AND METROLOGICAL CONDITIONS:

Location	State of Odisha
Altitude	1000 m
Air Temperature	
Minimum	0 °C
Maximum	50 °C
Maximum Daily Average	35 °C
Maximum Humidity	99 %
Pollution Level	Heavy/Very Heavy
Airborne Contamination	Highly Polluted
Isoceraunic Level	70 day/annum
Average no. of dust storm days per annum	20 day/annum
Seismic withstand level	0.3 g (Horizontal) & 0.15g (Vertical)
Wind velocity	55 m/s (Wind zone VI)
Average Annual Rain Fall	150 cm
Average no. of rainy days in a year	120 days

Special Environmental Conditions	1. In coastal areas of the state presence of salinity in air and exposure to moisture 2. In industrial belts of the state excessive dust in air
--	--

5. GENERAL AND TECHNICAL REQUIREMENTS:

- 5.1** The Voltage Transformers shall be of outdoor, live tank design ,oil impregnated paper insulated, single phase, 50 Hz, oil immersed, self- cooled and suitable for the services indicated and for operation in the climatic conditions specified without protection from sun, rain and dust. The Voltage Transformer shall be complete in all respects and shall conform to the modern practice of design and manufacture.
- 5.2** The IVT shall be suitable for transport in horizontal position, if the transport limitation so demand.
- 5.3** The characteristics of the IVTs shall be such as to provide satisfactory performance such as voltage error and phase displacement at rated frequency shall not exceed the values as per relevant standards with burdens of between 25% and 100% of rated burden at a power factor of 0.8 lagging. The error shall be determined at the terminals of the IVT and shall include the effects of any fuses or resistors as an integral part of the IVT.
- 5.4** Inductive voltage transformers shall be designed so as to achieve the minimum risk of explosion in service. The bidder shall bring out in his offer, measures taken to achieve this.
- 5.5** **The IVT assembly and other critical process shall be done in a dust free controlled environment, under positive pressure.**
- 5.6** The IVT shall be vacuum filled with oil after processing and thereafter hermetically sealed to eliminate breathing and to prevent air and moisture from entering the tanks. Oil filling and/or oil sampling cocks, if provided to facilitate factory processing should be properly sealed before dispatching the IVT. The method, adopted for hermetic sealing shall be described in the offer.
- 5.7** Polarity shall be indelibly marked on each primary and secondary terminal.

6. CONSTRUCTIONAL DETAILS:

6.1 PRIMARY WINDING:

Primary winding of the IVT will be connected phase to neutral with the neutral point solidly earthed. The arrangement for this shall be included in the scope of supply.

The primary conductor shall be of adequate cross-section so that the maximum permissible current density shall not be exceeded even during short-circuit conditions.

6.2 INSULATION:

- 6.1.1** The paper insulation shall be made up of high-quality, **high density paper with cellulose content of more than 75% complying with IEC 60554-2 and 60641-3-1**. The manufacturer shall submit the test certificate regarding conductivity and other major attributes like density, grammage, tan delta, dielectric strength, air permeability, capillary rise in distilled water etc. of paper insulation and the invoice of the above material to OPTCL representative during FAT. The necessary raw material test certificate shall be verified at the time of acceptance test by OPTCL representative.

- 6.1.2 145 KV and above IVT** shall be provided with suitable test tap for measurement of capacitance, tan delta as well as partial discharges. Provision shall be made on a screw cap for solid and secured earthing of the

test tap connection, when not in use. A suitable caution plate shall be provided duly fixed on the cover of the secondary terminal box indicating the purpose of the test tap and the necessity of its solid earthing as per prescribed method before energizing the Voltage Transformer. **The tan delta values of new IVTs shall not exceed 0.004 at $U_m/\sqrt{3}$ under ambient conditions (without correction factor).**

6.3 SECONDARY WINDING:

Suitably insulated copper wire of electrolytic grade shall be used for secondary windings. The secondary conductor shall be of adequate cross section so that the maximum permissible current density shall not be exceeded even during short-circuit conditions. Secondary windings details, burden & accuracy class are mentioned in Appendix-I. Secondary windings shall be used for metering, relaying and synchronizing. Each winding shall comply requirements of both Part-I and III of up-to-date editions of IS-16227/IEC-61869.

6.4 CORE : Core laminations shall be of cold rolled grain oriented silicon steel or other equivalent alloys of low hysteresis and eddy current losses, high permeability to ensure accuracy i.e. 0.2 accuracy class at both normal and high over voltage. The core material, thickness of lamination, the relevant graphs showing the characteristics of the core materials shall be submitted along with the offer.

6.5 TANK:

6.5.1 For 145 KV and above voltage class, tanks of the IVT shall be made of high quality Cast Aluminum Alloy and shall be able to withstand full vacuum and pressure, occurring during transit and thermal and mechanical stresses resulting from maximum short circuit current during operation. Other ferrous parts if any shall be hot-dip galvanized as per relevant standard.

6.5.2 The metal tanks (in case of Aluminium Alloy casting) shall have no welded joints so as to minimize possible locations of oil leakage.

6.5.3 For 33 KV voltage class, tanks of the IVT shall be made of high quality Steel HDG and shall be able to withstand full vacuum and pressure, occurring during transit and thermal and mechanical stresses resulting from maximum short circuit current during operation. All ferrous parts shall be hot-dip galvanized as per relevant standard. For 33 kV VT HDG Tank, Welding in horizontal plane is to be avoided as welding at this location may give way due to vibrations during transport resulting in oil leakage. Supplier has to obtain specific approval from the purchaser for any horizontal welding, used in the bottom tank.

6.5.4 Paint inside the metallic housing shall be of anti-condensation type.

6.5.5 For 220 KV & 132 KV level, the IVT shall be hermetically sealed to climatic breathing and entering air & moisture in the tank. For this, Stainless Steel Bellow shall be provided to take care of the expansion in the oil due to various stresses developed in the IVT. **The metal bellow shall be made up of SS 304/316 grade or better.**

6.5.6 For 33 KV level, the IVT shall be hermetically sealed to climatic breathing and entering air & moisture in the tank, either by providing stainless steel bellow or by nitrogen cushioning.

6.5.7 Type tested VT should have same construction and material of tank as the proposed Design. Other materials not acceptable.

6.5.8 Size of the terminal studs in offered VTs must not be less than the type tested design.

6.6 HOUSING :

6.6.1 PORCELAIN:

- a. The housing shall be made up of homogeneous, vitreous porcelain of high mechanical and dielectric strength; Glazing of porcelain shall be of uniform brown or dark brown colour with a smooth surface, arranged to shed away rain water or condensed water particles (fog). The details of location and type of joint, if provided on the porcelain, shall be furnished by the Bidder along with the offer.
- b. The type and profile of the porcelain insulator sheds shall be in accordance with IEC 60815 & IEC 62155.
- c. The specific creepage distance of insulators shall be 31mm/kV.**
- d. The insulators shall be cemented with Portland cement to the flanges resulting in high mechanical, tensile and breaking strength.
- e. The porcelains used shall be free from cavities and other flaws. The bushings shall have ample insulation, mechanical strength and rigidity for the condition under which they shall be used and shall be designed to prevent accumulation of explosive gases and provide adequate oil circulation to remove the internal heat.
- f. Cast metal end caps for the bushings shall be of high strength, hot dip galvanized malleable iron. They shall have smooth surface to prevent discharge-taking place between the metal parts and porcelain as a result of ionization.
- g. The insulation of bushings shall be coordinated with that of the voltage transformer such that the flashover, if any, will occur only external to the voltage Transformer. The puncture strength of the bushings shall be greater than the flashover value.
- h. End shields should be provided for distribution of stresses, where required.
- i. Corona shields, if required should be provided.

6.6.2 POLYMER COMPOSITE :

- a. Polymer housing material shall be made of high quality hydrophobic silicone rubber. Polymer Rubber housing shall be free from lamination cavities, surface tack, roughness or other flaws affecting the maximum level of mechanical and electrical strengths. Properties of the polymeric materials shall be specified in the offer and test reports for the same from a NABL accredited laboratory shall be submitted for approval of the purchaser. The polymer material which is used for arrester housing must be resistant to tracking & erosion, stabilized against UV radiation and shall not exhibit any fatigue to temperature and load.
- b. The VT housing in general shall conform to IEC 61462 and IEC 62217 as applicable. It shall not fail due to housing contamination. Housing shall be so coordinated that external flashover will not occur due to application of any impulse or switching surge voltage up to maximum design value of VT.
- c. The rain sheds / petticoats shall be of silicone polymer material and shall conform relevant standards.
- d. Type test reports of composite housing shall be submitted.
- e. The Polymer weather shed design shall be preferably of self-cleaning type (Aero foil design). The details of the Polymer housing shed profile such as distance, angle of Inclination, gap between the shed, diameter (ID and OD)

etc. shall be as per relevant Standard and shall be indicated by the Bidder/EPC in his offer in the form, during detailed Drawing evaluation.

- f. **The minimum specific creepage distance of the Composite housing shall be 31 mm/kV.**

6.7 INSULATING OIL:

- 1.1.** The quantity of insulating oil for the filling and the complete specification of the insulating oil shall be stated. The oil shall comply in all respects with the provisions of latest edition of IS: 335/IEC 60296. The voltage Transformers shall be supplied, filled with purified oil completely. **The tan delta value of insulating oil should be ≤ 0.002 and water content less than 10 ppm. Mineral oil shall be naphthenic based.**

RM test certificates shall be checked by OPTCL inspector during FAT.

6.8 PREVENTION OF OIL LEAKAGE AND ENTRY OF MOISTURE:

- 6.8.1** The supplier shall ensure that the sealing of the Voltage Transformer is properly achieved. In this connection, the arrangement provided by the supplier at various locations including the following ones shall be described, supported by sectional drawings.

- a. Locations of emergence of primary and secondary terminals.
- b. Interface between porcelain housing and metal tank/s.
- c. Cover of the secondary terminal box.

- 6.8.2** Nuts and bolts or screws, used for fixation of the interfacing porcelain bushings for taking out terminals shall be provided on flanges, cemented to the bushings and not on the porcelain.

- 6.8.3** For 220/132 kV VT, All sealing surfaces shall be smooth, straight, and reinforced, if necessary to minimize distortion and to make a tight seal. Sealing shall be done with O—ring seals. The O ring sealing shall have compression set of $< 15\%$ in adherence to ASTM D395-16. O rings shall be housed in CNC machined O ring groove. For 33 kV VT gaskets are allowed to be used. For gasketed joints, wherever used, nitrite butyl rubber gaskets or better quality materials shall be used. The gasket shall be fitted in properly machined groove with adequate space for accommodating the gasket under compression.

6.9 SECONDARY TERMINAL BOX:

- 6.9.1** The secondary terminals shall be brought out in a weather proof terminal box with a rating not less than IP-55. The secondary terminal box shall be made up of Aluminium Alloy of 3 mm thickness or stainless steel of 2mm thickness. The gland plates shall be either 3 mm thick Aluminium alloy or Stainless steel. The exterior of this terminal box shall be painted with minimum thickness 80 microns and above in case it is made up of Aluminium alloy.

- 6.9.2** All secondary terminals shall be brought out in a compartment on one side of each IVT for easy access.

- 6.9.3** The terminal box shall be provided with removable gland plate and glands suitable for 1100 volts grade. PVC insulated, PVC sheathed multi core 4 sq.mm to 6 sq.mm stranded copper conductor cable.

- 6.9.4** The terminal box shall be provided with a door in front so as to have easy access of secondary terminals. The door shall have a sealing/locking arrangement and shall be suitable to prevent penetration of moisture and rain water.

- 6.9.5** The dimensions of the terminal box and its openings shall be adequate to enable easy access and sufficient working space for use of normal tools.
- 6.9.6** The terminal blocks shall be 1.1. KV melamine material standard disconnecting type and provided with ferrules indelibly marked or numbered and their identifications shall correspond to the designation on the relevant wiring diagram.
- 6.9.7** MCBs of suitable size and rating shall be provided in the secondary box for protection gradation and isolation of the IVT secondary circuit.
- 6.9.8** Secondary wiring terminal studs shall be provided with at least three nuts, plain and spring washers. The studs, nuts and washers shall be of brass, duly nickel plated. The minimum diameter of the studs shall be 6 mm. The length of at least 15 mm shall be available on the studs for inserting the leads.

6.10 FITTINGS AND ACCESSORIES:

Fittings and accessories, listed below shall be supplied with each IVT as applicable. Any fitting, required essential other than those listed below shall also be supplied along with each IVT.

- 6.10.1 OIL LEVEL GAUGE:** Prismatic oil level gauge shall be provided to indicate the oil level in the voltage Transformer. This gauge shall be mounted in such a way that the oil level can be seen from ground level. If metal bellow is used, a ground glass window shall be provided to monitor the position of the metal bellow. The metal below shall be tested in accordance with relevant standards. The details shall be to the approval of the purchaser.

- 6.10.2 PRESSURE RELIEVING DEVICE:** If 33 kV Voltage Transformer has nitrogen cushion arrangement, it shall be provided with a pressure relieving device so as to protect bushing of the voltage Transformer even under unfavorable Conditions.

The pressure relief valve shall comply with the following requirements:

- a. It shall conform to relevant IS/IEC standards.
 - b. It shall be suitably calibrated for the maximum allowed pressure. Bidder shall ensure that the PRV shall not operate during any of the acceptance tests.
 - c. *It will be treated as a major bought out item hence, necessary test report from manufacturer (of PRD) shall be submitted during approval of the drawing.*
- 6.10.3 OIL DRAIN COCK:** All VTs shall be provided with oil filling/draining valves for filling and collection of oil. Cover/Cap shall be provided. VTs must have adequate provision for taking samples without exposure to atmosphere. Manufacturer shall recommend the frequency at which oil sample should be drawn and norms for various gases after being in operation for different durations. Manufacturer should also indicate the total quantity of oil which can be withdrawn from VT for gas analysis before refilling or further treatment of VT becomes necessary.
- 6.10.4 EARTHING:** Metal tank of each VT shall be provided with two separate earthing pads for bolted connection to 50mm X 6mm flat, to be provided by the purchaser for connection to station earth-mat. Nut and bolts for connection of grounding flat with grounding terminal shall be in the OEM's scope of supply.

- 6.10.5 LIFTING ARRANGEMENT:** The Voltage Transformer shall be provided with suitable lifting arrangement to lift the entire unit. The lifting arrangement shall

be clearly shown in the general arrangement drawing. Lifting arrangement (lifting eye) shall be positioned in such a way so as to avoid any damage to the porcelain/polymer housing or the tanks during lifting for installation / transport. Necessary string guides shall be offered which shall be of removable type.

6.10.6 NITROGEN FILLING VALVE: 33 kV VTs shall be provided with a nitrogen filling valve, in case there is no stainless steel bellow.

6.10.7 RATING/NAME PLATE & MARKING:

- a. The VT shall be provided with non-corrosive (stainless steel), legible name plate with the information specified in relevant standards, duly engraved on it.
- b. A schematic drawing indicating the connections shall be provided in the interior of the Secondary Terminal box.

6.10.8 TERMINAL CONNECTORS: Not in the scope of IVT supplier.

6.10.9 NUT & BOLTS:

- a. Nuts and bolts for mounting CT on CT structure shall be supplied by the OEM.
- b. Nut and bolts for connection of earthing flat with CT earthing terminal shall be supplied by OEM.

7. TESTS:

7.1. Type Tests:

7.1.1 All the equipment offered shall be fully type tested as per the relevant standards (IS 2705-1, IEC 61869-1/IS 16227-1 & IEC 61869-3/IS 16227-3 with latest amendments) & tests as indicated below. **The bids offering equipment not type tested will be rejected.** In case, the equipment of the type & design offered has already been type tested, the bidder/ EPC agency shall furnish four sets of the type test reports along with the offer. The test must have been conducted not later than **Ten years from the last date of submission of the bid.**

7.1.2 The purchaser reserves the right to demand repetition of some or all the type & additional type tests in the presence of its representative. For this purpose, the bidder/ EPC agency may quote unit rates for carrying out such type tests.

7.1.3 For any change in the design/type of already type tested VT offered against this specification, the purchaser reserves the right to demand repetition of some or all type and special tests in presence of OPTCL's representative(s) at the cost of the supplier (without any extra cost to the purchaser) or reject the bid without any intimation.

7.1.4 All type test reports should have been conducted in independent third-party NABL laboratories. The tests for which testing facility is not available in India, should have been conducted in a laboratory of foreign Country accredited by National Accreditation Body of that Country.

7.1.5 The type tests conducted in-house by manufacturers shall also be acceptable provided the lab is accredited by National Accreditation Body of the Country and the tests have been witnessed by a representative of NABL accredited laboratory/Government Power Utility.

7.1.6 List of Type/Special Tests as per IS/IEC:

- 1) Temperature-rise test
 - 2) Lightning impulse withstand voltage test on primary terminals
 - 3) Power-frequency wet withstand voltage tests for VT up to and including 245 kV
 - 4) Tests for accuracy
 - i) Type Tests for accuracy of measuring core
 - ii) Type Tests for accuracy of protective core
 - 5) Short-circuit withstand capability test
 - 6) EMC tests: Radio Interference voltage test for 145kV, 245 kV VT
 - 7) IP 55 test on secondary terminal box
 - 8) Chopped impulse voltage withstand test on primary terminals for 145 kV and above VT
 - 9) Measurement of capacitance and dielectric dissipation factor for 145kV, 245 kV VT.
 - 10) Transmitted overvoltage test for 145kV, 245 kV VT
 - 11) Mechanical terminal load test
 - 12) Corrosion test for 145kV, 245 kV VT
 - 13) Corona extinction voltage test for 245 kV VT
 - 14) Seismic withstand voltage test as per IEC/TR 62271-300
- 7.1.7 Additionally all the hollow insulators (both) should be completely type tested as per relevant standards.

7.1.8 All the type tests shall be carried out on a maximum of two specimens.

7.1.9 All the dielectric type tests shall be carried out on the same instrument transformer. After the voltage transformers have been subjected to the dielectric type tests they shall be subjected to all the routine tests detailed below.

N.B: In case of 132kV or higher voltage IVT, the tank of IVT should be of such material as specified in the type test.

7.2 ACCEPTANCE/ROUTINE TESTS:

7.2.1 All acceptance/routine tests as stipulated in IEC-61969-1/3 and IS 2705-1 and its latest amendments & routine tests as indicated below shall be carried out by the supplier in the presence of purchaser's representative.

7.2.2 The manufacturer should have in-house NABL accredited lab for conducting below mentioned acceptance tests. If the in house lab is not NABL accredited, than all FAT shall be done in third party NABL labs in presence of OPTCL representative, without any additional financial implication to OPTCL.

7.2.3 No sampling is allowed for factory acceptance tests. FAT of 100% of the offered quantity shall be witnessed by OPTCL representative.

7.2.4 List of Acceptance/Routine Tests:

- a. Appearance and Dimensional Check.
- b. Power-frequency voltage withstand tests on primary terminals
- c. Power-frequency voltage withstand tests on secondary terminals
- d. Tests for accuracy
 - i. Routine tests for accuracy of measuring core
 - ii. Routine tests for accuracy of protective core
- e. Verification of terminal marking
- f. Partial discharge measurement
(NOTE: before test, minimum PD sensitivity of HV laboratory shall be demonstrated as 2.5 pC)
- g. Enclosure tightness test at ambient temperature

- h. Measurement of capacitance and Tan delta at 10 kV and $U_m/\sqrt{3}$ in all 145 kV and above VTs

7.2.5 The below tests are required to be carried out **at least in one VT per LOT** in the factory during Acceptance test. These tests will be conducted on one randomly selected unit among the lot offered for inspection and these test will be conducted after HV test only.

- 1) Lightning impulse withstand test on the primary terminals.
- 2) Temperature rise test.
- 3) DGA before and after LI impulse withstand test.
- 4) Properties of Insulating Oil (Reference standard IEC 60296/IS 335)
 - i. BDV
 - ii. Tan delta
 - iii. Water content
 - iv. Specific resistance

7.2.6 **In addition to the above tests the following checks shall be done by OPTCL inspector during factory visit.**

- 1) **Visual verification by the inspector whether the workshop/assembly line of factory are maintained under positive pressure or not where critical components and assemblies are carried out.**
- 2) **Raw material and invoice checking of insulating oil, core, coil, paper insulation & stainless steel metal bellow/ PRD.**

7.2.7 ADDITIONAL TESTS:

The purchaser reserves the right for carrying out any other tests of a reasonable nature at the works of the supplier/laboratory or at any other recognized laboratory/research institute in addition to the above mentioned type, acceptance and routine tests at the cost of the purchaser to satisfy that the material complies with the intent of this specification.

8. INSPECTION:

- 8.1** The purchaser shall have access at all times to the works and all other places of manufacture, where the voltage transformers are being manufactured and the supplier shall provide all facilities for unrestricted inspection of the supplier's works, raw materials, manufacture of all the accessories and for conducting the necessary tests.
- 8.2** The supplier shall keep the purchaser informed in advance of the time of starting and of the progress of manufacture of equipment in its various stages so that arrangement could be made for inspection.
- 8.3** No material shall be dispatched from its point of manufacture unless the material has been satisfactorily inspected, tested and dispatch clearance issued. However, the purchaser reserves the right to alter the dispatch schedule, attached to this specification without any extra financial liability to OPTCL.
- 8.4** The acceptance of any quantity of equipment shall in no way relieve the supplier of his responsibility for meeting all the requirements of this specification and shall not prevent subsequent rejection, if such equipment are found to be defective.
- 8.5** Before offering for inspection, the supplier shall furnish shop routine test certificates and calibration reports of the equipment/instruments to be used during testing. After acceptance of these calibration reports and shop routine test certificate, inspecting officer will be deputed for witnessing such inspections.
- 8.6** The purchaser reserves the right to insist for witnessing the acceptance/routine testing of the bought-out items.

9. QUALITY ASSURANCE PLAN:

- 9.1** The Successful Bidder/ EPC agency shall submit Quality Assurance Plan for manufacturing process for approval (or may comply to the Standard T. S. NO. SR.G.M.-CPC-II-E-TENDER-IVT-01/2024-25

Manufacturing Quality Plan of OPTCL if available with the Technical specification).

9.2 The Successful Bidder/ EPC agency shall submit process flow chart for the manufacturing process along with the drawings/GTP.

9.3 The QAP shall contain the followings:

9.3.1 RAW Materials/Bought out items:

- 1) Incoming raw materials/bought out items from sub vendors,
- 2) Name of the sub vendors,
- 3) List of standards to which the raw materials/bought out items adhere/according to which the raw materials are manufactured,
- 4) List of tests carried out by the OEM on the raw materials/bought out items to verify the quality of the incoming raw materials with sampling rate of the tests,
- 5) Acceptance norms,
- 6) The record of these test results shall be kept for verification by OPTCL.

9.3.2 In process inspection by OEM:

- 1) List of tests carried out by OEM to ensure quality at various stages of manufacture.
- 2) Sampling rate of the tests
- 3) Reference standards for tests and acceptance norms,
- 4) The record of these test results shall be kept for verification by OPTCL.
- 5) **OPTCL preserves the right to witness all/some of these tests at the factory premises of OEM.**

9.3.3 Factory acceptance tests:

- 1) All tests as per IEC 61869-1/61869-3/IS 2705-1 as applicable on VT.
- 2) Quantum of check/Sampling rate = 100%.
- 3) Reference standards for tests and acceptance norms,
- 4) Tests shall be carried out by manufacturer and witnessed by OPTCL representative.

9.3.4 Type test reports:

- 1) The QAP shall also contain list of type test conducted on the design,
- 2) Reference standard,
- 3) Acceptance norms.

9.3.5 Level of automation achieved and list of areas where manual processing exists.

9.3.6 List of areas in manufacturing process where stage inspections are normally carried out for quality control and details of such test and inspections.

9.3.7 Special features provided in the equipment to make it maintenance free.

9.3.8 List of testing equipment available with the OEM for final testing of VT vis-à-vis, the type, special, acceptance and routine tests specified in the relevant standards. Any limitations in this regard shall be very clearly brought out in the offer.

9.3.9 All the testing equipment, meters etc, should have been calibrated in a NABL accredited laboratory. The Bidder must submit the list of testing equipment and meters test-wise as per Annexure – B of the Technical Specification.

9.3.10 Packing and Dispatch:

- 1) List of checks to ensure the completeness of equipment and accessories as per PO,
- 2) List of checks to ensure proper packing of CB and spares,
- 3) Supply of O&M Manual and test reports.

9.4 Subsequent to/(During) approval of drawings/GTP & before offering inspection, the supplier shall, submit following information to the purchaser:

9.4.1 List of raw materials as well bought out accessories and the names of sub-suppliers selected from those furnished along with offer.

9.4.2 Type test certificates of the raw material and bought out accessories. **(Paper Insulation, Core, Winding , insulating oil, Terminal Clamps & Hollow Insulators)**

9.4.3 Quality assurance plan (QAP) withhold points for purchaser's inspection (if purchaser so desires). The QAP and hold points shall be discussed between the purchaser and the supplier before the QAP is finalized.

9.5 The supplier shall submit the raw material/ bought out item test certificates and routine test reports, before/at the time of offering inspection call.

10. DOCUMENTATION:

10.1 All dimensions in submitted drawings shall be in SI units.

10.2 All submitted drawings, GTP, MQP, and other documentations shall confirm to IS/IEC and this TS.

10.3 List of drawings & documents:

The Bidder/ EPC agency shall furnish four sets of the following drawings/documents along with the offer.

1) General outline drawings showing dimensions and shipping weights, quantity of oil etc.,

2) Sectional views showing

1) General constructional features,

2) Materials / gaskets / sealing used,

3) The insulation of the winding arrangement, method of connection of the primary / secondary winding to the primary / secondary terminals etc.

3) Guaranteed technical Particulars,

4) Schematic drawing,

5) Rating and Diagram plate,

6) Secondary Terminal Box,

7) The detailed dimensional drawing of Porcelain Housing/Polymer housing such as ID, OD, thickness and Insulator details such as height, profile of petticoats, angle of inclination and gap between successive petticoats, total creep age distance etc.,

8) Assembly Sectional view of Primary Terminal,

9) Assembly drawing for secondary terminal,

10) Sectional view of Pressure Release device,

11) Drawing showing details of Oil level Indicator,

12) Sectional view of Pressure Release device/Bellow,

13) Drawing showing details of Oil level Indicator,

14) All type and special test reports relating to tests,

15) Ratio and phase angle error curves for VTs,

16) Magnetization characteristic curves such as B-H curves and sp.loss vs. flux density curves,

17) Design calculation for thermal (I_d^2t) and dynamic (A-T) short circuit withstand w.r.t type tested design.

10.4 After placement of order the supplier shall submit four sets of final version of all the above drawings/GTP for purchaser's approval. The purchaser shall communicate his comments/approval on the drawings to the supplier within reasonable period. The supplier shall, if necessary, modify the drawings and resubmit four copies of the modified drawings for purchaser's approval. After receipt of purchaser's approval, the supplier shall, submit 15 prints of the approved drawings for purchaser's use.

10.5 The supplier shall also furnish fifteen (15) copies of manuals covering erection, commissioning, operation and maintenance instructions and all relevant information and approved drawings pertaining to the VTs. Marked erection drawings shall identify the component parts of the equipment as shipped to enable purchaser to carry out erection with his own personnel. Each manual shall also contain one set of all the approved drawings, type test reports as well as acceptance reports of the corresponding consignment dispatched. The instruction manuals shall contain storage, handling, erection, and commissioning, troubleshooting, servicing and overhauling instructions.

10.6 The manufacturing of the equipment shall be strictly in accordance with the approved drawings and no deviation shall be permitted without the written approval of the purchaser. All manufacturing and fabrication work in connection with the equipment prior to the approval of the drawing shall be at the supplier's risk.

10.7 Approval of drawings/work by purchaser shall not relieve the supplier of his responsibility and liability for ensuring correctness and correct interpretation of the drawings for meeting the requirement of the latest revision of applicable standards, rules and codes of practices. The equipment shall conform in all respects to high standards of engineering design workmanship & latest revisions of relevant standards at the time of ordering & purchaser shall have the power to reject any work or materials which in his judgment is not in full accordance therewith.

10.8 TEST REPORTS:

10.8.1 Four copies of type test and special test reports shall be furnished to the purchaser with the tender offer.

10.8.2 Four copies of acceptance test reports shall be furnished to the purchaser as per the inspection of testing. One copy will be returned, duly certified by the purchaser and only there afterwards shall the material be dispatched.

10.8.3 All records of routine test reports shall be maintained by the supplier at his works for periodic inspection by the purchaser.

10.8.4 All test reports of tests conducted during manufacture shall be maintained by the supplier. These shall be produced for verification as and when requested for by the purchaser.

11. PACKAGING AND FORWARDING:

11.1 The equipment shall be packed in suitable crates so as to withstand handling during transit and outdoor storage. The supplier shall be responsible for any damage to the equipment during transit, due to improper and inadequate packing and handling. The easily damageable materials shall be carefully packed and marked with the appropriate caution symbols. Wherever necessary, proper arrangement for lifting such as lifting hooks etc. shall be provided. Any material found short inside the packing cases shall be supplied by the supplier without any extra cost.

11.2 Each consignment shall be accompanied by a detailed packing list containing the following information:

- 1) Name of the consignee.
- 2) Details of consignment.
- 3) Destination.
- 4) Total weight of consignment.
- 5) Sign showing upper / lower side of the crate.
- 6) Handling and unpacking instructions.
- 7) Bill of material indicating contents of each package and spare material.
- 8) Manuals containing approved drawings & test reports

11.3 The supplier shall ensure that the packing list and bill of material are to be supplied in advance to the purchaser & to the consignees before dispatch.

12. COMPLETENESS OF EQUIPMENT:

Any fittings, accessories or apparatus which may not have been specifically mentioned in the specification but which are usual or necessary in the equipment of similar plant shall be deemed to be included in the contract and shall be supplied by the supplier without extra charges. All plant and equipment shall be complete in all details whether such details are mentioned in the specification or not. The detail bill of materials list to be furnished along with the tender.

APPENDIX – I
(TECHNICAL REQUIREMENTS)

SL .N O	PARTICULARS	33 KV IVT	132KV IVT	220 KV IVT
1	Type	Single phase, 50Hz, oil filled, self cooled, Hermetically sealed, outdoor type.	Single phase, 50Hz, oil filled, self cooled, Hermetically sealed, outdoor type.	Single phase, 50Hz, oil filled, self cooled, Hermetically sealed, outdoor type.
2	Nominal system voltage.	33 KV	132KV.	220 KV.
3	Highest system voltage.	36 KV	145KV.	245KV.
4	Frequency.	50Hz± 5%	50Hz± 5%	50Hz± 5%
5	System earthing.	Effectively solidly earthed	Effectively solidly earthed	Effectively solidly earthed
6	Number of phases.	3 [single phase]	3 [single phase]	3 [single phase]
7	(i)Number of secondary windings. (ii)Purpose of windings.	2 [two] Protection& metering.	2 [two] Protection & metering.	3 [three] Protection & metering.
8	Rated primary voltage.	33/√3 KV	132/√3 KV	220/√3 KV
9	Rated secondary voltage.	Winding-I- 110/√3 V (Protection) Winding-II- 110/√3 V(Metering)	Winding-I & II- 110/√3 V (Protection) Winding-III- 110/√3 V(Metering)	Winding-I & II- 110/√3V (Protection) Winding-III- 110/√3 V(Metering)
10	Ratio	33 KV/√3 : 110V/√3	132KV/√3 : 110V/√3	220KV/√3 : 110V/√3
11	Rated burden.	Winding-I(P)- 50 VA Winding-II(M)- 50 VA Simultaneous Burden- 100 VA with accu. cl-0.2	Winding-I(P)- 100 VA Winding-II(P)- 100 VA Winding-III(M)- 50 VA Simultaneous Burden- 150 VA with accu. cl-0.2	Winding-I(P)- 100 VA Winding-II(P)- 100 VA Winding-III(M)- 50 VA Simultaneous Burden- 150 VA with accu. cl-0.2
12	Accuracy Class.	3P/ 0.2	3P/3P/ 0.2	3P/3P/ 0.2
13	Rated voltage factor at rated frequency.	1.2 Continuous. 1.5 for 30 seconds.	1.2 Continuous. 1.5 for 30 seconds.	1.2 Continuous. 1.5 for 30 seconds.
14	Temperature rise at 1.2 times the rated primary voltage, rated frequency & rated burdens.	As per IEC- 61869.	As per IEC- 61869.	As per IEC- 61869.

15	Temperature rise at 1.5 times the rated primary voltage for 30 seconds, rated frequency & rated burden.	As per IEC-61869.	As per IEC-61869.	As per IEC-61869.
16	One-minute power frequency dry withstands test voltage for primary winding.	70 KV [rms]	275KV [rms]	460 KV [rms]
17	1-minute power frequency wet withstands test voltage for primary winding.	70 KV [rms]	275KV [rms]	460KV [rms]
18	1.2/50 micro second impulse withstand test voltage for primary winding	170 KV [peak]	650KV [peak]	1050KV [peak]
19	One-minute power frequency withstands test voltage	3KV [rms]	3KV [rms]	5KV [rms]
20	Class of insulation.	'A'	'A'	'A'
21	Material of the conductor of primary and secondary windings.	Copper.	Copper.	Copper.
22	Short Circuit Fault level of the bus to which the equipment will be connected.	31.5KA [rms].for 1second.	40 KA [rms].for 1second.	50 KA [rms].for 1second.
23	Minimum creepage distance.	31mm/KV		
24	Quality of oil.	EHV Grade As per IS-335.	EHV Grade As per IS-335.	EHV Grade As per IS-335.
25	RIV at $1.1 \times \frac{U_m}{\sqrt{3}}$	$\leq 1000 \mu V$		
26	Acceptable Partial discharge level.	<p>At PD Test voltage U_m, PD level $\leq 10 pC$</p> <p>At PD Test voltage $1.2 \times \frac{U_m}{\sqrt{3}}$, PD level $\leq 5 pC$</p>		
27	Seismic acceleration Withstand	0.15g (Vertical) & 0.3g (Horizontal)		
28	Dielectric dissipation factor for 132 KV & higher voltage class VT at ambient temperature at $\frac{U_m}{\sqrt{3}}$	---	≤ 0.004	≤ 0.004
29	Accuracy class of standard I.T. to be used during testing towards determination of ratio errors and phase angle errors for metering cores.	0.05 or better		

ANNEXURE-A.

GUARANTEED TECHNICAL PARTICULARS FOR 245/145/36 KVIVT **(To be filled in by the Bidder/EPC)**

Sl. No.	Description.	33 KV IVT	132 KV IVT	220 KV IVT
		3P/0.2 Accuracy Class	3P/0.2 Accuracy Class	3P/3P/0.2 Accuracy Class
1	Bidder's name and address.			
2	Name and address of the Manufacturer.			
3	Manufacturer's type and designation.			
4	Standards applicable.			
5	Type of IVT			
6	Rated primary voltage (kV).			

7	Rated secondary voltage (volts).			
7.1	Winding-I.			
7.2	Winding-II.			
7.3	Winding-III.			
8	Rated frequency [HZ].			
9	Burden:-			
9.1	Rated burden			
	Protection Winding			
	Protection Winding			
	Metering Winding			
9.2	Simultaneous Burden			
9.3	Thermal burden			
10	Number of secondary windings.			
11	Accuracy class.			
[I]	[protection] Winding			
[II]	[metering] Winding			
12	Rated voltage factor for continuous operation at rated frequency.			
13	Rated voltage factor for 30 seconds at rated frequency.			
14	One minute dry and wet power frequency withstand voltage for primary side [kv] rms.			
15	One minute power frequency withstand voltage for secondary winding [kv] rms.			
16	1.2/50 micro- second impulse withstand test voltage for primary side			
17	Temperature rise over an ambient temperature of 50°C			
[a]	With 1.2 times rated primary voltage at rated frequency and at rated burdens. [I] Winding [°C] [II] Oil [°C] [III] Other parts [°C]			
[b]	With 1.5 times rated primary voltage for 30 seconds at rated frequency and at rated burdens. [I] Winding [°C] [II] Oil [°C] [III] Other parts [°C]			
18	Class of insulation.			
19	Total creepage distance in (mm)			
20	Maximum radio interference voltage at 1.1 times maximum line to ground voltage (micro volts)			
21	Corona inception and extinction voltage (kv) rms			
22	Partial discharge level (picocoulombs)			

23	<p>Primary.[For 220KV, 132KV & 33KV IVT]</p> <p>(a) No. of primary turns</p> <p>(b) Material of primary</p> <p>(c) Size of the primary conductor bare/insulated.</p> <p>(d) Cross sectional area of primary conductor (sq.mm)</p> <p>(e) Current density adopted for primary winding(A/sq.mm)</p> <p>(f) Type of primary winding.</p> <p>(g) Name of the insulating materials used for primary conductor.</p> <p>(h) Weight of primary winding.</p>			
24	<p>Secondary. [For 220KV, 132KV & 33KV IVT]</p> <p>(a)No. of secondary turns</p> <p>(b) Material of secondary</p> <p>© Size of the secondary conductor bare /insulated.</p> <p>(d)Cross sectional area of secondary conductor (mm²)</p> <p>(e)Current density adopted for secondary winding(A/mm²)</p> <p>(f)Type of secondary winding</p> <p>(g)Name of the insulating materials used for secondary conductor.</p> <p>(h)Weight of secondary winding.</p>			
25.	<p>Core. [For 220KV, 132KV & 33KV IVT]</p> <p>(a)Shape of the core</p> <p>(b)Material and grade of the core laminations</p> <p>(c)Thickness of the core lamination (mm)</p> <p>(d)Maximum flux density adopted (Tesla)</p> <p>(e)Net iron area of the core</p> <p>(f)Watt loss/kg. for the core materials at the operating flux density(W/kg)</p> <p>(g) Total weight of the core(kg)</p> <p>(h)Whether B-H curve for core material enclosed?</p> <p>(i)Whether specific loss vrs. Flux density curve enclosed?</p>			
26	<p>INSULATION. .[For 220KV, 132KV & 33KV IVT]</p> <p>(a) Insulation between core and secondaries.</p> <p>(b) Insulation between secondaries.</p> <p>© Insulation between secondary and primary.</p> <p>(d) Insulation between primary .and core.</p>			
27	<p>DIMENSIONS OF CORE AND WINDINGS. .[For 220KV, 132KV & 33KV IVT]</p>			

	(a)Diameter of the core (mm) (b)Inner diameter of the secondary windings(mm) (c) Outer diameter of the secondary windings (mm) (d) Inner diameter of the primary winding(mm) (e) Outer diameter of the primary winding(mm) (f) Minimum clearance from primary winding to tank(mm) (g) Minimum clearance from secondary winding to tank(mm)			
28.	Percentage voltage ratio (error)/phase displacement (min.)at 100% rated burden at 0.8PF lagging for measuring winding. (a) 80% of rated voltage at frequency:- (b) 120% of rated voltage at frequency:- (c) Accuracy of standard PT to be used. during determination of errors (0.05 or better.			
29.	Percentage Voltage ratio /phase displacement (min.)at 25% rated burden at 0.8PF lagging for measuring winding. (a) 80% of rated voltage at rated frequency:- (b) 120% of rated voltage at rated frequency:-			
30.	Percentage voltage (ratio)error /phase displacement (min.) at 100% rated burden at 0.8PF lagging for protection winding (a)5% of rated voltage. (b)1.2 times rated voltage (c)1.5 times rated voltage (d) 2% of rated voltage..			
31.	Percentage voltage (ratio) error /phase displacement (min) at 25% of rated burden at 0.8PF lagging for protection winding (a)5% of rated voltage (b)1.2 times rated voltage. (c)1.5 times rated voltage. (d) 2% of rated voltage.			
32.	Whether IVT is suitable for horizontal transportation.			
33.	Quantity of oil per IVT (Ltrs/kg)			
34.	Standard to which oil conforms.			
35.	Characteristic of oil(Prior to filling)			
35.1.	Breakdown voltage (kv-rms)			
35.2.	Dielectric dissipation constant tan delta)			
35.3.	Water content(PPM)			
35.4.	Gas content(PPM)			
35.5.	Interfacial tension at 27 degree C(N/m)			

35.6	Specific resistance.			
35.6.1	At 90 deg.C(ohm-cm)			
35.6.2	At 27 deg.C(ohm-cm)			
36.	Whether IVTS are hermetically sealed? If so how?			
37.	Total Weight (kg)			
38.	Transport weight (kg)			
39.	Dimensional details.			
40	Whether IVT characteristic curves enclosed?			
41.	TANK AND SECONDARY TERMINAL BOX.			
41.1	Material of the IVT tank			
41.2	Material of the secondary terminal box.			
41.3	Thickness of the IVT tank material.			
41.4	Thickness of the secondary terminal box material.			
41.5	Zinc coating/Paint thickness of IVT tank(g/sq.m)			
41.6	Zinc coating/paint thickness of the secondary terminal box (g/sq.m)			
41.7	Weather proof rating of secondary terminal box.			
41.8	Weight of tank fitting and other accessories.			
42	TERMINAL CONNECTORS			
42.1	Manufacturer's name			
42.2	Applicable standards.,			
42.3	Type.			
42.4	Material of connector. (a)Clamp body. (b)Bolts and Nuts. (c) Spring Washers			
42.5	Rated current.			
42.6	(a) Rated terminal load(kg) (b) Factor of safety.			
42.7	Minimum thickness of any part(mm)			
42.8	Weight of connector complete with hardware.			
42.9	Type test reports as per IS enclosed.			
42.10	OGA drawing enclosed.			
43	BUSHING/SUPPORT INSULATOR			
43.1	Manufacturer's name			
43.2	Type.			
43.3	Applicable standards.			
43.4	Dimensions: (i)Height(mm) (ii)Diameter(top)(mm) (iii)Diameter(bottom)(mm)			
43.5	Total creepage distance (mm).			
43.6	Rated voltage(KV)(rms)			
43.7	Power frequency withstand voltage for (1 minute dry and wet(KV/rms)			

43.8	1.2/50 micro-second Impulse withstand voltage (KVP)			
43.9	Corona Extinction voltage(kv)			
43.10	Weight(kg)			
43.11	Maximum allowable span (mm)			
43.12	Cantilever strength(kg)			
43.13	OGA drawing enclosed.			
44	Whether in-house lab of the OEM is NABL accredited or not			

Signature of the Bidder/EPC with

Seal & Date

ANNEXURE –B**CALIBRATION STATUS OF TESTING EQUIPMENTS AND INSTRUMENTS/METERS**

Sl no	CALIBRATION OF EQUIPMENTS	Furnished or not
1	Name of the Test.	
2	Meters and equipment required for the corresponding test with range accuracy make and Sl. No.	
3	Date of Calibration.	
4	Due date of Calibration.	
5	Name of the Calibrating Agency	
6	Whether Calibrating Agency is Govt. Approved.	
7	Whether documents relating to Govt. Approval of the calibrating Agency furnished?	
8	Whether the meters/ equipment fulfill the accuracy class as per calibration report	
9	Whether the calibrating agency has put any limitation towards the use of the particular meter/equipment. If yes, state the limitations.	
10	Whether green sticker or blue sticker or yellow sticker has been affixed on the body of the particular equipment/meter. State the colour of the affixed sticker.	
11	In spite of imposed limitations, whether the particular meter/ equipment can still be used? Justify its use for corresponding test(s).	
12	Remarks if any.	

Signature of the Bidder/EPC with seal and date

ANNEXURE-C**CHECK LIST TOWARDS TYPE TEST REPORTS**

SL no	<u>TYPE TEST REPORTS</u>	Furnished or not
1	Name of the Type Test.	
2	Date of Test.	
3	Name of the Laboratory where the Test has been conducted.	
4	Whether the Laboratory is Government Approved.	
5	Test reports are valid as per T.S.	
6	Whether the copy of Test Report in complete shape along with drawings etc. furnished or not?	
7	Whether the Type Tested VOLTAGE TRANSFORMER fulfills the technical requirements as per TS.	
8	If the type tested Surge Arrester does not fulfill the technical requirements as per this specification, whether the Bidder/EPC agrees to conduct the particular type test again at their own cost without any financial liability to OPTCL in the presence of OPTCL's representative within the specified delivery period.	
9	Remarks if any.	

Signature of the Bidder/EPC with seal and date

ANNEXURE – D**Appendix-II****CHECK-LIST FOR DELIVERY SCHEDULE**

Sl No.	Description of materials	Quantity	Scheduled Delivery from the date of issue of Purchase order	Destination
1	2	3	4	5
1	LOT-I: 400 kV Capacitive Voltage transformer.			Any site/ store/destination sub-station under the jurisdiction of OPTCL within state of Odisha.
	400 kV Capacitive Voltage transformer	3	Delivery to be completed within 04 (Four) months from date of issue of PO.	
2	LOT-II: 132 kV Inductive Voltage transformer.			
	132 kV Inductive Voltage transformer.	98	Delivery to be completed within 04 (Four) months from date of issue of PO.	
3	LOT-III: 33kV(0.2 Class) Potential transformer.			
	33kV(0.2 Class) Potential transformer	137	Delivery to be completed within 04 (Four) months from date of issue of PO.	

Signature of the Tenderer with seal and date