



ODISHA POWER TRANSMISSION CORPORATION LIMITED

**OFFICE OF THE SR. GENERAL MANAGER
CENTRAL PROCUREMENT CELL
JANAPATH, BHUBANESWAR-751007
TEL NO. 0674-2541801 FAX NO. 0674-2542964**

**TENDER SPECIFICATION NO.
SR.GM-CPC-TENDER- ACSR CONDUCTOR-42/2024-25**

TOWARDS PROCUREMENT OF CONDUCTOR

Lot	Conductor	Unit	Quantity	EMD @1%
i	ACSR Panther	km	1413.69	32,07,512/-
ii	ACSR Zebra	km	21.915	93,913/-
iii	ACSR Moose	km	68.245	3,59,907/-
iv	GI earth wire	km	27.5	10,632/-

Request for online tender documents: from Dt.25.04.2025 (11.00 Hrs) to Dt.22.05.2025 (13.00 Hrs).

Last date of submission of Online tender: Up to 15.00 Hrs of Dt.22.05.2025.

Date of opening of Tender : Dt.23.05.2025 at 11.00 Hrs

NOTICE INVITING TENDER

ODISHA POWER TRANSMISSION CORPORATION LTD.,
REGD. OFFICE: JANPATH, BHUBANESWAR – 751 007,

ODISHA, INDIA.

e-TENDER NOTICE NO- CPC-42/2024-25.

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

Lot	Conductor	Unit	QTY.	EMD @1% of Estd. Cost.	Cost of Tender document	Tender Processing Fee	Last date of submission & Date of opening of Tender
i	ACSR Panther	km	1413.69	32,07,512/-	29,500/-	Rs.5900/-	Up to 15.00 Hrs of Dt.22.05.2025. And On Dt. 23.05.2025 at 11.00 Hrs.
ii	ACSR Zebra	km	21.915	93,913/-	14,160/-		Up to 15.00 Hrs of Dt.15.05.2025. And On Dt. 16.05.2025 at 11.00 Hrs.
iii	ACSR Moose	km	68.245	3,59,907/-	14,160/-		
iv	GI earth wire	km	27.5	10,632/-	7,080/-		

The bidders can view the tender documents from website free of cost. The interested bidders would be required to enrol themselves on the tender portal www.tenderwizard.com/OPTCL. Complete set of bidding documents are available at www.tenderwizard.com/OPTCL from Dt.25.04.2025 (11.00 Hrs) to Dt.22.05.2025 (13.00 Hrs). 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 addendums / corrigendum to the tender shall be hosted in the OPTCL's official web site <http://www.optcl.co.in> and www.tenderwizard.com/OPTCL only.

SR GENERAL MANAGER [C.P.C.]

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The bidders can view the tender documents from website free of cost.

TENDER COST:

1) The bidders who want to submit bid shall have to pay **the above amount** (non-refundable including GST @ 18%) towards the tender cost, **as per tender notice online through e-payment gateway link provided in e-tender portal (by using Net Banking, Debit Card or Credit Card) 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.

2) TENDER PROCESSING FEE:

The bidders shall have to pay non-refundable amount of Rs. 5,900/- (Rupees five thousand nine hundred only) 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 and bid document in electronic mode.

3) Other:

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 opening of techno-commercial bid.

The bidders shall scan the notarized 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.

SR GENERAL MANAGER, CPC

CENTRAL PROCUREMENT CELL

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PART-I

SECTION-I

INSTRUCTIONS TO TENDERER

1. 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.

- I. For all the users it is mandatory to procure the Digital Signatures.
- II. 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 DD in Favour of KSEDCL Payable at 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.
- III. 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.
- IV. 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
- V. 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.
- VI. 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.
- VII. 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
- VIII. Tender Opening event can be viewed online.
- IX. Competitors bid sheets are available in the website for all.
- X. **For any e-tendering assistant contact help desk number mentioned below.** Bangalore – 080- 40482000.

The participants to the tender should be registered under ODISHA Sales Tax, Act, VAT Act/Central sales Tax Act/ 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.

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) ~~Cash:- Payable to drawing & disbursing Officer, OPTCL (Hd.qrs. Office), Bhubaneswar – 751022~~
- (b) **Bank Draft:** -To be drawn in favour of Drawing & Disbursing Officer, OPTCL [H.Qrs.Office], Bhubaneswar-751 022.
- (c) 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.

National saving certificate duly pledged in favour of Senior General Manager [Central Procurement Cell] OPTCL {Head Qrs. Office] Bhubaneswar-751022.

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) E.M.D. in shape of cash may be submitted up to Rs. 25,000/- (Rupees Twenty-five) Thousand only. Above Rs. 25,000/- (Rupees Twenty-five thousand) the Earnest Money Deposit shall be furnished in any one of the forms indicated above (i.e. Through Bank Draft, Bank Guarantee/ National Savings Certificate).
- (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] The quoted price shall be variable as per IEEMA PVC.

The IEEMA formula as on date of opening of tender shall be applicable. Whenever IEEMA formula is amended subsequently, the same shall be applicable from the effective date mentioned therein with two stage computation for the period prior to amendment and subsequent to amendment.

Computational procedure

- IEEMA PV formula shall be made applicable on 95% of taxable value (Discovered in OPTCL tenders/negotiated including freight and insurance) considering 5% towards freight and loading & unloading cost
- There would be ceiling of 20% on positive side and no ceiling on negative side for price variation. However increase beyond 15% can be given in exceptional cases only.
- For Conductor, only Monthly average Aluminium LME seller settlement price will be considered as per IEEMA for calculating PV.
- When the actual delivery date is within the contract delivery date, the PV will be calculated considering the actual delivery date (the date on which the item is notified as being ready for inspection/dispatch or in the absence of such notification, the date of manufacturers dispatch note is to be considered as the date of delivery.

When the actual delivery date is after the contract delivery date, the PV will be calculated considering the scheduled delivery date or the date of offer for inspection or the actual delivery date, whichever is advantageous to the purchaser.

- Price variation bills/ debit or credit notes are to be submitted by the firm for the item that are subject to variable price for a quarter
- In case of upward revision of price due to price variation, the BG for 10% of differential amount shall be submitted within 15 days of approval of Price Variation

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:

Part-I of the Tender shall Contain the following documents.

- [i] Declaration Form. [As per Annexure-I]
- [ii] Earnest Money. [As per **Annexure-VIII**]
- [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/equipments 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/equipments 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] Sales tax clearance certificate for the previous year and GST Compliance Rating. The GST Identification Number (GSTIN) under GST Laws and permanent account number [PAN] of the firm 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 **Annexure, as appended.**
- [xii] List of Orders in hand to be executed.
- [xiii] Deviation schedule.

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/manufacturer 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/manufacturer. Journey from the Head Quarters of the inspecting officer to the nearest Air Port by train (1st/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 (1st/IIInd A.C) & A/C taxi to the place of inspection/testing shall be arranged by the contractor/supplier/manufacturer.
- (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/manufacturer.

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/manufacturer 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/manufacturer 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

21.0 (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.

21.0 (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.

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.

[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 un-satisfactory 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, notwithstanding 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 price reduction 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 stores 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 multiple lots, the last date of delivery of each lot 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) of GTCC i.e. Price Reduction Schedule** 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) of GTCC i.e. Price Reduction Schedule**] intimated by OPTCL.

If it becomes necessary for the supplier to replace or repair any defective equipment/ materials, the provision of this clause shall apply for the same until the expiry of guarantee period.

Limitation of Liabilities :

The final payment by OPTCL in pursuance of the Contract shall mean the release of the Contractor from all his liabilities under the Contract except for liabilities under Guarantee period. Such contractual liabilities and responsibilities of the Contractor shall prevail till expiry of the guarantee period even after the final payment is released.

Notwithstanding anything to the contrary mentioned herein and to the extent permitted by law, the aggregate liability of Contractor to OPTCL, whether in contract, tort or otherwise, will be limited to **100%** of the contract value.

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 guarantee period, for scrutiny and acceptance, failing which the supply order will be liable for cancellation without any further written notices. In case of upward revision of price due to price variation, the BG for 10% or 5% (as applicable) of differential amount shall be submitted within 15 days of approval of Price Variation. 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-fulfilment of contractual obligation, as required in the detailed purchase order/Specification, the composite Bank guarantee shall be forfeited.

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 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. Sales Tax clearance certificate , 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 including mandatory spares, if any for maintenance of equipment. (At discretion of the purchaser)
- b) Good and Services Tax
- c) Other levies, if any.
- d) Test charges, if any.
- e) Supervision of erection, testing and commissioning charges, if any.
- f) Any other items, as deemed proper for evaluation by the purchaser.
- g) 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.
- h) 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.

(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.e-Reverse Auction process shall be resorted to in the tender 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 Demonstration/ training (if not trained earlier) of bidder's nominated person(s), shall be done by KEONICS 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
 - a. The e-RA shall be conducted on www.tenderwizard.com/OPTCL only.
 - 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-IA). In non-receipt of the same, vendors will not be allowed to participate in e-RA.
 - 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.
 - 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.
- 6 Prior intimation/ Notice for RA invitation will be given to techno-commercially qualified bidders

regarding the date & time of opening of the e-RA.

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.

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-----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).

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.

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) .

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.

- 7 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.

(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.

(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.

(iii) Bidders can only quote any value lower than their previous quoted price. However, at no stage, increase in Price will be permissible.

(iv) At any point during Reverse Auction, bidding Price field (Total price) shall remain enabled for the bidders. The total 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 auction period or extended auction period, the reverse auction process shall get extended automatically for another 10(ten) minutes. In case, there is no Bid received during schedule/extended slot, the Auction shall get closed automatically without further extension.

(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.

- 8 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 .

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.

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.

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 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.

31. Minimum Qualification Criteria of Bidders: -

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

- i. The bidder should have manufacture and supply experience of the above rated or higher capacity equipment/materials for a minimum period of 02(Two) years as on the date of opening of the Tender.
- ii. At least 50 % of the tendered quantity of the above rated or higher capacity equipment/materials should have been supplied within the above stipulated period. (Note: *within the above stipulated period:-i.e. within 02(two) years from the date of opening of this tender)

- iii. The above rated or higher capacity equipment/materials should have at least 02(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 equipment in Govt. approved laboratory within the 10(Ten) years from the date of opening of tender.

32. **Jurisdiction of the High Court of Odisha.**

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 Odisha extends.

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.

A. 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.

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. 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 ;

V. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.

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.

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.

B. 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.]

33. **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.

34. **Official Address of the Parties to the Contract**

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

- [i] **Purchaser:** CHIEF General Manager (CPC), OPTCL,
Bhubaneswar-751022 (Odisha)

Telephone No. 0674 - 2541801

FAX No. 0674 - 2542964

- [ii] **Supplier:** Address
Telephone No.
Fax No.

35. **Outright Rejection of Tenders.**

Tenders shall be outrightly rejected if the followings are not complied with: –

- 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) 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 last date and time of submission of bid. Earnest Money Deposit should be valid for a period of 240 days from the date of tender opening, if furnished in shape of EMD BG.
- v. The tender shall be kept valid for a minimum period of 180(One Hundred Eighty) 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 02(Two) years shall be furnished(Scanned copies to be uploaded).
- viii. The tenderer shall upload the scanned copy of latest type test certificates (for the tests, carried out on the tendered equipment, 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 price 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 No. 4 (ii) of Part-II.
- x. The Tenderer should quote "VARIABLE PRICE" only and the price should be kept valid for a minimum period of 180(One Hundred Eighty) days from the date of opening of the Tender.
- xi. The tenderer shall upload the scanned copy of legibly written user's certificate to prove the satisfactory operation of the offered equipment/materials for a minimum period of 02 (Two) years from the date of commissioning 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 and 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.

36. **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.

37. **CONTACTING THE PURCHASER: -**

- (a) Subject to Clause No.4 (opening of bids) of part-I, Section-I (Instruction to Tenderer), no bidder shall contact the purchaser on any manner, relating to its bid, from the time of bid opening to the time, the contract is awarded.
- (b) Any effort by a Bidder to influence the purchaser in the purchaser's bid evaluation, bid comparison or contract award decisions may result in the rejection of the Bidder's bid.

38. **Scheme/Projects**

The materials/equipment covered in this specification shall come under "O&M Works".

PART-I
SECTION-III
[LIST OF ANNEXURES]

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-IA
3.	Abstract of General Terms & Conditions of contract.	ANNEXURE-II
4.	Schedule of Quantity and Delivery.	ANNEXURE-III
5.	Abstract of price component	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 Deviation.	ANNEXURE-XII
14.	Litigation History	ANNEXURE-XIII
15.	DPIIT Certificate	ANNEXURE-XIV
16.	Affidavit towards correctness of documents & information furnished by the bidders	ANNEXURE-XV

LIST of Documents

The following documents are to be attached in the below name

1.PAN

2.GSTIN

3.Income tax return

4.Audited B/s & Profit loss account

5. Certificate of incorporation

ANNEXURE - I
DECLARATION FORM

To

The Sr. 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/equipments 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/equipments 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 *cash/money order/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 2014

Yours faithfully

Signature of the Tenderer
with seal of the company

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

* (Strikeout whichever is not applicable).

N.B:- The annexure is to be filled up & uploaded as PDF

ANNEXURE - IA

(Reverse Auction Process Compliance Form)

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

To,

Sr. G.M (CPC), OPTCL

Bhubaneswar-751022,

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)

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

(To be filled up by the tenderer)

SL No	Description of materials	Quantity required	Desired Delivery	Destinatio n	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)

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	Mandatory	

	Claim		
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

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-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% 3% 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 -----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.....

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:.....
1. 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.

N.B:- The annexure is to be filled up & uploaded as PDF

ANNEXURE-IX

DATA ON EXPERIENCE

Sl. No	PARTICULARS	
[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(s) of the Organisations to whom supplies were 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 & present status	
[g]	A list of purchase orders, executed during last three years	
[h]	A list of similar equipments of specified KVA rating, voltage class, Impulse level, short circuit rating, designed, manufactured, tested & commissioned which are in successful operation for at least two years from the date of commissioning with legible users certificate. Users 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

N.B:- The annexure is to be filled up & uploaded as PDF

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

N.B:- The annexure is to be filled up & uploaded as PDF

ANNEXURE-XI

SCHEDULE OF INSTALLATIONS

Rated MVA	Rated Voltage	Place of Installation & complete postal address	Year of commissioning

Place:

Date:

Signature of Tenderer

Name, Designation, Seal

N.B:- The annexure is to be filled up & uploaded as PDF

ANNEXURE-XII

DEVIATION SCHEDULE.

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

A) Technical

(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)

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

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

Annexure-XV

AFFIDAVIT OF BIDDER

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 on _____ in 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 TEREFORE, 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 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 contact/ agreement with the bidder if any.
4. The OPTCL shall also be competent, without any reference to the Bidder, to blacklist 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

SECTION –IV

TECHNICAL SPECIFICATION OF ACSR PANTHER, ZEBRA & MOOSE CONDUCTOR

1. SCOPE :-

This specification provides for the manufacture, testing, supply and delivery at destination of the steel cored aluminium conductors as per Appendix –I attached.

2. STANDARDS :-

2.1. The conductors shall comply in all respects to the clauses of this specification as indicated below & with the Indian Standard Specification, international standards with latest amendments. Some of the standards are:-

- i) IS 398 – Specification for Aluminium Conductor for overhead transmission purposes.
IS 398, Part-II-Aluminium conductors for overhead Transmission purpose – Specification.
- ii) IS 1521, 1972 – Method of tensile testing of steel.
- iii) IS 1778-1989- Reel & drums for bare conductors.

3. MATERIALS :-

3.1 The material offered shall be of best quality and workmanship. The steel Cored Aluminium conductor strands will consist of hard-drawn aluminium wire manufactured from 99.5% pure electrolytic aluminium rods of E.C. Grade. The steel wire shall be made from materials produced either by the acid or basic open hearth process or by electric process. No steel wire drawn from pressmen process shall be used. The steel wire shall not contain sulphur or phosphorus exceeding 0.035 percent, and the total of sulphur and phosphorus shall not exceed 0.085 percent.

3.2 The steel wires shall be evenly and uniformly coated with Zinc complying with Indian Standards 4826-1979 specification for galvanized coating on round steel wires. The uniformity of Zinc coating and the weight of coating shall be in accordance with Appendix – II. The coating on the galvanized steel wires may be applied by the hot process or the electrolytic process.

4. SIZE :-

The size of steel-cored Aluminium Conductors shall be as given in Appendix-I. The resistance and weights shall be in accordance with the values given in the same appendix.

5. TOLERANCES :-

5.1 The following tolerances shall be permitted on standard diameter of aluminium wires.
Tolerance on standard diameter of aluminium wire ± 1 percent wires.

Note :- The cross-section of any wire shall not depart from circularity by more than an amount corresponding to a tolerance of 2 percent on the standard diameter.

5.2 A tolerance of + 2 percent shall be permitted on the standard diameter of the galvanized steel wires. The variation from the approximate weights shall not be more than plus or minus 5 percent.

6. MECHANICAL PROPERTIES :-

The value of the final modules of elasticity for steel cored aluminium conductor in the average of values obtained from actual stress strain tests. The co-efficient of linear expansion for steel Cored Aluminium Conductors has been calculated on the basis of co-efficient of linear expansion of 23.0×10^{-6} per degree centigrade of aluminium and 11.5×10^{-6} per degree centigrade for steel and represents only the average values. These values shall however, be given by the bidder under the guaranteed technical particulars.

7. SURFACE CONDITIONS :-

The wires shall be smooth and free from inequalities, spills and splits. The surface conductor shall be free from points, sharp-edges, abrasions or other departures from smoothness or uniformity of surface contour that would increase radio interference and corona losses. When subjected to tension up to 50% of the ultimate strength of the conductor, the surface shall not depart from its cylindrical form nor any part of the component, parts or stands, move relative to each other in such a way as to get out of place and disturb the longitudinal smoothness of the conductor.

8. JOINTS IN WIRES :

8.1 Aluminium wires : No joints shall be permitted in the aluminium wires in the outermost layer of the ACSR conductor. Joints in the inner layers are permitted, in addition to those made in the base rod or wire before final drawing, but no two such joints shall be less than 15 meter apart in the complete stranded conductor. Such joints shall be made by cold pressure butt-welding.

Joints are not permitted in the outermost layer of the conductor in order to ensure a smooth conductor finish and reduce radio interference levels and corona losses on the extra high voltage lines.

8.2 **Galvanized steel wire:** - There shall be no joints except those in the base rod or wire before final drawing, in steel wires forming the core of the steel-reinforced aluminium conductor.

Joints have not been permitted in the steel wires after drawing in order to avoid reduction in the breaking strength of the conductor that may occur as a result of failure of the joints.

9. STRANDING :-

9.1 The wires used in construction of a stranded conductor shall before stranding, satisfy all requirements of IS-398 / (part-II) 1976 with latest amendments. For steel-cored aluminium conductors the lay ratio of the different layers shall be within the limits given under Appendix -I).

9.2 For all, constructions, each alternate layer shall be stranded in opposite directions. The wires in each layer shall be evenly and closely stranded round the under laying wire or wires. The final layer of wires shall have a right hand lay.

10. PACKING AND MARKING :-

10.1 The conductor shall be wound in non-returnable reels or drums conforming to Indian Standard 1978-1961 specification for Reels and Drums for Bare Wire, or any other authoritative standard and marked with the following :-

- | | |
|-------------------------|-----------------------------------|
| a) Trade name, if any | b) Contract / Award letter Number |
| c) Name of Manufacturer | d) Name & Address of Consignee |
| e) Drum Number | f) Length of conductor |

- | | | | |
|----|-----------------------------------|----|-------------------------------------|
| g) | Size of Conductor | h) | Gross Weight of drum with conductor |
| i) | Weight of empty drum with lagging | j) | Net and gross weight of conductor |
| k) | Arrow marking of un-winding | | |

10.2 The reel shall be of such construction as to assure delivery of conductor in the field from displacement and damage and should be able to withstand all stresses due to handling and the stringing operations so that conductor surface is not dented, scratched or damaged in any way during manufacture, transport and erection. The conductor shall be properly lagged on the drums and the method of lagging to be employed should be clearly stated. It should be stocked to suit the reel and held in place by steel strapping. Lagging shall not be nailed or bolted in place.

10.3 The conductor drum should be suitable for wheel mounting. Before reeling, the card-board or other suitable material shall be secured to the drum and inside flanges of the drums. After reeling the conductor, the exposed surfaces should be wrapped with suitable soft material to prevent the conductor from dirt and grit. Any space between the drum lagging and conductor should be suitably filled with soft filler material compactly packed. The conductor drum shall be made as per the relevant IS.

11. **LENGTHS :-**

11.1 The conductor shall be supplied in the standard lengths as below with a permitted variation of 5%. Not less than 90% of the total quantity of the conductor shall be supplied in the standard lengths. Thus the quantity of the conductor in lengths shorter than standard ones shall not exceed 10% of the total quantity to be supplied. Further no single conductor lengths in respect of such 10% (maximum supply) in random lengths, shall be shorter than 50% of the standard lengths.

<u>Type of Conductor</u>	<u>Length per drum</u>
ZEBRA ACSR	1.1 K.M
PANTHER ACSR	2.2 K.M
MOOSE ACSR	1.1 KM

12. **TESTS AND TEST CERTIFICATES :-**

The following type tests (& any other tests if purchaser decides to do), shall be conducted on the conductor at any Govt. approved laboratory or CPRI, in presence of the representatives of OPTCL, on the samples collected and sealed by the representative of OPTCL from the manufactured & offered drums of conductor at random at free of cost to OPTCL or firm may quote their test charges which will be taken in to account during bid price evaluation. If test charges will not be quoted by the firm, it will be treated as nil during bid price evaluation & firm have to do the type tests at free of cost to OPTCL. **Also the tenderer shall furnish valid type test reports, the tests are as per the IS 398 (Part-2) conducted in any govt. approved laboratory or CPRI within last 5 years, from the date of opening of the bid (Techno-commercial) document, without which their bids will not be considered for evaluation.**

- 12.1 Individual wire and finished steel cored Aluminium Conductor shall be subjected to before dispatch from the works, to the tests as per the provision of the Indian standard Specification 398 (Part-II-1976) with the latest amendments & as per the tests indicated in this specification below.
- 12.2 Samples for individual wires for test shall be taken before stranding from not less than 10 percent of the spools in the case of aluminium wire and ten percent of the wire coils in the case of steel wires. If samples are taken after stranding, they shall be obtained by cutting 5 meters from the outer end of the finished conductor from not more than 10 percent of the finished reels.
- 12.3 The mechanical tests shall be carried out on single wires only.
- 12.4 The tensile test shall apply to wire of all diameters forming part of steel cored aluminium conductors. If it is not possible to test the component wires before stranding the test may be made on wire taken from stranded conductors. The tensile strength of any of the wires shall not be less than the minimum values given in Appendix-II.
- 12.5 A suitable tensile testing machine shall be used, the accuracy of which can easily be checked and the machine adjusted if necessary. The test sample before being placed in the machine, shall be straightened, if necessary in such a way as to cause the minimum alteration in its physical properties.

The load shall be applied gradually and rate of separation of the jaws of the testing machine shall not be greater than 10cm/min and less than 2.5cm/min.

A) TYPE TESTS

12.6 Wrapping Test :-

- 12.6.1 Samples of aluminium wires shall be wrapped round a wire of its own diameter to form a close helix of eight turns. Six turns shall then be unwrapped and again clearly wrapped in the same direction as before. The wire shall not break.
- 12.6.2 Samples of steel wires shall be closely wrapped eight times round a mandrel of diameter equal to four times the wire diameter. Six turns shall then be unwrapped and again closely wrapped in the same direction as before. The wire shall not break.

12.7 Galvanizing Test :-

- 12.7.1 The uniformity of zinc coating and the weight of coating shall be as given in Appendix-II and shall be determined according to Indian Standard Specification 4826-1979 with latest amendments.
- 12.7.2 This test shall be made whenever practicable, on wires before stranding and before the specimen has been bent, straightened or tested in any other way.

12.8 Ductility Test :-

This test shall be made on galvanized steel wires only by any of the proceedings given in 12.8.1 and 12.8.2.

12.8.1 Torsion Test :-

One specimen cut from each of the sample shall be gripped at its ends in two vices, one of which shall be free to move longitudinally during the test. A small tensile load not exceeding

2% of the breaking load of the wire, shall be applied to the sample during testing. The specimen shall be twisted by consisting one of the vices to revolve until fracture occurs and the number of twists shall be indicated by a counter or other suitable device. The rate of twisting shall not exceed 60 rev/min.

When tested before stranding, the number of complete twists before fracture occurs shall not be less than 18 on a length equal to 100 times the diameter of the wire. The fracture shall show a smooth surface at right angles, to the axis of the wire.

When tested after stranding, the number of complete twists before fracture occurs shall be not less than 16 on a length equal to 100 times the diameter of the wire. The fracture shall show a smooth surface at right angles to the axis of the wire.

12.8.2 Elongation Test:-

The elongation of one specimen cut from each of the samples shall be determined. The specimen shall be straightened by hand and on original gauge length of 200 mm shall be marked on the wire. A tensile load shall be applied as described in 12.5 and the elongation shall be measured after the fractured ends fitted together. If the fracture occurs outside the gauge marks, or within 25 mm of either mark and the required elongation is not obtained, the test shall be disregarded and another test made. When tested before stranding, the elongation shall be not less than 4 percent. When tested after stranding, the elongation shall be not less than 3.5 percent.

12.9 Surface Condition Test :-

A sample of the finished conductor having a minimum recommended length of 5 meters with compression type dead end clamps compressed on both ends in such a manner as to permit the conductor to take its normal straight line shape, shall be subject to a tension of 50% of the UTS of the conductor. The surface shall not depart from its cylindrical shape nor shall the strands move relative to each other so as to get out of place or disturb the longitudinal smoothness of conductor. The measured diameter at any place shall be not less than the sum of the minimum specified diameters of the individual aluminium and steel strands.

12.10 Ultimate strength (UTS) Test on Stranded Conductor :-

Circles perpendicular to the axis of the conductor shall be marked at two places on a sample of conductor of minimum 5 m length suitably compressed with dead end clamps at either end. The load shall be increased at a steady rate up to specified 50% of UTS and held for one minute. The circles drawn shall not be distorted due to Relative movement of strands. Thereafter the load shall be increased at a steady rate to the minimum UTS specified in Appendix-I and held for one minute. The applied load shall then be increased until the failing load is reached and the value recorded.

12.11 Corona Extinction Voltage Test:-

One sample of conductor of 5m length shall be strung. In case of twin conductor, two samples shall be arranged with the actual sub-conductor spacing between them. This sample assembly when subjected to power frequency voltage shall have a corona extinction voltage of not less than 320 KV (rms) for 400 KV and 176 KV (rms) for 220 KV system line to ground under dry

condition. There shall be no evidence of corona on any part of sample when all possible sources of corona are photographed in a darkened room. The test shall be conducted without corona control rings. The voltage shall be corrected for standard atmospheric conditions.

12.12 Radio Interference Voltage Test:-

Under the conditions as specified in 12.11 above, the conductor samples shall have a radio interference voltage level below 1500 microvolts at one MHZ when subjected to 50 HZ AC voltage of 1.1 times maximum line to ground voltage under dry condition. This test may be carried out with corona control rings and arcing horns.

12.13 D.C. Resistance Test on Stranded Conductor:-

On a conductor sample of minimum 5 m length two contact clamps shall be fixed with a pre-determined bolt torque. The resistance shall be measured by a Kelvin double bridge by placing the clamps initially zero meter and subsequently one meter apart. The test shall be repeated at least five times and the average value recorded. The value obtained shall be corrected to the value at 20 degree centigrade as per clause No. 12.8 of IS : 398 (part V). The resistance corrected at 20 degree centigrade shall conform to the requirements of this specification.

12.14 Stress-Strain Test:-

12.14 (i) This test is contemplated only to collect the creep data of the conductor from the supplier. A sample of conductor of minimum 10 metres length shall be suitably compressed with dead end clamps.

12.14 (ii) Test Set-up

(a) The test sample shall be supported in a trough over its full length and the trough adjusted so that the conductor will not be lifted by more than 10 mm under tension. This shall be ascertained by actual measurement.

(b) The distance between the clamp and the sleeve mouth shall be monitored with callipers during the test to ensure that, after the test, it does not change by more than 1 mm +/- 0.1 mm from the value before the test.

(c) The conductor strain shall be evaluated from the measured displacements at the two ends of the gauge length of the sample. The gauge reference targets shall be attached to the clamps which lock the steel and aluminium wires together. Target plates may be used with dial gauges or displacement transducers and care shall be taken to position the plates perpendicular to the conductor. Twisting the conductor, lifting it and moving it from side-to-side by the maximum amounts expected during the test should introduce no more than 0.3 mm error in the reading.

12.14 (iii) Test Loads for Complete Conductor

The loading conditions for repeated stress-strain tests for complete conductor shall be as follows:-

(a) 1 KN load shall be applied initially to straighten the conductor. The load shall be removed after straightening and then the strain gauges are to be set at zero at zero tension.

(b) For non-continuous stress-strain data, the strain reading at 1 KN intervals at lower tensions and 5 KN intervals above 30% of UTS shall be recorded.

(c) The sample shall be reloaded to 50% of UTS and held for 1 hour. Readings are to be noted after 5, 10, 15, 30, 45 and 60 minutes during the hold period. The load shall be released after the hold period.

(d) Reloading up to 70% UTS shall be done and held for 1 hour. Readings are to be noted after 5, 10, 15, 30, 45 and 60 minutes and then the load shall be released.

(e) Reloading up to 85% of UTS shall be done and held for 1 hour. Readings are to be noted after 5, 10, 15, 30, 45 and 60 minutes and then the load shall be released.

(f) Tension shall be applied again and shall be increased uniformly until the actual breaking strength is reached. Simultaneous readings of tension and elongation shall be recorded up to 90% of UTS at the intervals described under Clause 12.14 (iii) (e).

12.14 (iv) Test Loads for Steel core Only

The loading conditions for repeated stress-strain tests for the steel core of ACSR shall be as follows:-

(a) The test shall consist of successive application of load applied in a manner similar to that for the complete conductor at 30%, 50%, 70% and 85% of UTS.

(b) The steel core shall be loaded until the elongation at the beginning of each hold period corresponds to that obtained on the complete conductor at 30%, 50%, 70% and 85% of UTS respectively.

12.14 (v) Stress Strain Curves

The design stress-strain curve shall be obtained by drawing a smooth curve through the 0.5 and 1 hour points at 30%, 50% and 70% of UTS loadings. The presence of any aluminium slack that can be related to any observed extrusion entering the span from the compression dead ends shall be removed from the lower ends of the design curves. **Both the laboratory and design stress-strain curves shall be submitted to the purchaser along with test results.** The stress-strain data obtained during the test shall be corrected to the standard temperature i.e. 20 degree centigrade.

12.15. Chemical Analysis of Zinc

Samples taken from the Zinc ingots shall be chemically / spectrographically analyzed. The same shall be in conformity to the requirements stated in this specification.

12.16 Chemical Analysis of Aluminium and Steel

Samples taken from the Aluminium ingots / coils / strands shall be chemically / spectrographically analyzed. The same shall be in conformity to the requirements stated in this specification.

ROUTINE / ACCEPTANCE TESTS

12.17 Visual and Dimensional Check on Drums

The drums shall be visually and dimensionally checked to ensure that they conform to the requirements of this specification.

12.18 Visual Check for Joints, Scratches etc.

Conductor drums shall be rewound in the presence of the inspector. The inspector shall visually check for scratches, joints, etc. and that the conductor generally conforms to the requirements of this specification.

12.19 Dimensional Check of Steel and Aluminium Strands

The individual strands shall be dimensionally checked to ensure that they conform to the requirements of this specification.

12.20 Check for Lay-ratios of various Layers

The lay-ratios of various layers shall be checked to ensure that they conform to the requirements of this specification.

12.21 Breaking load test on welded Aluminium strand & Individual wires

Two Aluminium wires shall be welded as per the approved quality plan and shall be subjected to tensile load. The welded point of the wire shall be able to withstand the minimum breaking load of the individual strand guaranteed by the supplier

12.22 Ductility Test

12.23 Wrapping test

12.24 Resistance test

12.25 Galvanising test

13. RETEST AND REJECTION :-

- 13.1 Each coil or spool selected for testing shall be tested for compliance with the requirements of Indian Standard Specification 398 (part-II) 1976 with latest amendment if any selected coil or spool not fulfill any of the test requirements, that particular coil or spool shall be withdrawn. In respect of each failure, two test pieces shall be selected from two different coils in the lot & subjected to the test under which the failure occurred. If either of the two retest pieces fails to pass that test, the lot concerned shall be rejected.

If samples are taken for test after stranding and if any selected reel fails in the retest, the manufacturer may test each and every reel and submit them for further inspection. All rejected materials shall be suitably marked and segregated.

14. GUARANTEED TECHNICAL PARTICULARS :-

The bidder shall fill in the guaranteed technical particulars in the Performa at Appendix-IV and submit the same with his tender, without which bid will not be considered.

15. SAG TENSION CHARTS AND SAG TEMPLATES :-

The contractor shall supply each six copies of sag tension charts and sag templates in respect of each type of the steel core aluminium conductor. The Contractor shall also supply sag template in celluloid which shall be subject to the approval by the purchaser and without involving any extra charges. The design data of the lines on which these conductors will be used are given in Appendix-III.

16. SCHEDULE OF REQUIREMENTS, DESIRED DELIVERY :-

- 16.1 The schedule of requirements and desired deliveries are indicated in Annexure-III (Schedule of Quantity & Delivery), Section – III of the Tender Specification. The purchaser reserves the right

to order the entire quantity of Conductors as specified or part of the total quantity of Conductor specified.

APPENDIX-I

Sl.No	Description.	Panther ACSR	ZEBRA ACSR	Moose ACSR
1	Size of conductor	30/7/3.00 mm	54/7/3.18 mm	54/7/3.53 mm
2	Stranding and wire diameter			
	Aluminium	30/3.00 mm	54/3.18 mm	54/3.53 mm
	Steel	7/3.00 mm	7/3.18 mm	7/3.53 mm
3	Sectional area of Aluminium	212.10 sq. mm	428.9 sq. mm	528.5 sq.mm
4	Approximate total mass	974 Kgs / KM	1622 Kgs / KM	2004 Kgs / KM
5	Calculated resistance at 20oC Max	0.139 Ohms / Km	0.06868 Ohms / Km	0.05552 Ohms / Km
6	Calculated breaking load of Composite conductor (U.T.S.) (Min)	89.67 KN	130.32 KN	160.20 KN
7	Lay Ratio:- Steel Core	Max – 28 Min – 13	Max – 28 Min – 13	Max – 18 Min – 16
	Aluminum Layers			
	12 Wire Layer (Innermost Layer)	Max – 16 Min - 10	Max – 17 Min - 10	Max – 14 Min - 12
	18 Wire Layer (Lay immediately beneath outside Layer)	Max- 14 Min - 10	Max- 16 Min - 10	Max – 13 Min - 11
	24 wire layer (outside layer)	-----	Max – 14 Min – 10	Max – 12 Min - 10
8	Modulus of elasticity	0.815 x 10 ⁶ Kg x CM2 (80 GN per sq. meter)	0.7036 x 10 ⁶ Kg x CM2 (69 GN per sq. meter)	0.7036 x 10 ⁶ Kg x CM2 (69 GN per sq. meter)
9	Co-efficient of linear expansion Of conductor per degree centigrade	17.8 x 10 ⁻⁶ /°C	19.3 x 10 ⁻⁶ /°C	19.3 x 10 ⁻⁶ /°C
10	10. Standard area of Cross Section in Sq.mm of conductor	261.5 mm ²	484.5 mm ²	597.0 sq.mm
11	Diameter of complete conductor	21.00mm	28.62 mm	31.77 mm

APPENDIX – II
Solid Steel and Aluminium Wires used in Steel cored
Aluminium Conductors

Sl. No	Description.	Panther ACSR		ZEBRA ACSR		Moose ACSR	
		Steel	Alum.	Steel	Alum.	Steel	Alum.
1	Standard (in mm).	3.0	3.0	3.18	3.18	3.18	3.18
	Maximum (in mm)	3.06	3.03	3.24	3.21	3.24	3.21
	Minimum (in mm)	2.94	2.97	3.12	3.15	3.12	3.15
2	Cross sectional area of nominal diameter.	7.069 mm ²	7.069 mm ²	7.942 sq. mm	7.942 sq. mm	7.942 sq. mm	7.942 sq. mm
3	Weight	55.13 Kg/KM	19.11 Kg/KM	61.95 Kg / Km	21.47 Kg / Km	61.95 Kg / Km	21.47 Kg / Km
4	Minimum tensile strength	As per relevant ISS					
5	Minimum breaking load before stranding	10.43 KN	1.29 KN	10.43 KN	1.29 KN	10.43 KN	1.29 KN
6	Minimum breaking load after stranding	8.83 KN	1.11 KN	9.91 KN	1.23 KN	9.91 KN	1.23 KN
7	Zinc coating of steel Strands						
	Number and duration of dips	3 (1 Min. dip)		3 (1 Min. dip)		3 (1 Min. dip)	
	Minimum Weight of Coating (gm / m ²)	As per IS-4826-1979		260		260	
8	Maximum resistance at 20°C of Aluminium strands (Ohms/Km)		4.079	3.626	2.974	3.626	2.974
9	Purity of aluminium rod		99.5%		99.5%		99.5%

APPENDIX – III

Sl.No	Description.	Panther ACSR	ZEBRA ACSR	Moose ACSR
1	Conductor	Steel cored Aluminium	Steel cored Aluminium	Steel cored Aluminium
2	(a) Copper equivalent	130 sq.mm		
	(b) Stranding	30/7/3.00 mm	54/7/3.18 mm	54/7/3.53 mm
3	Normal Span	320 Meters	320 Meters	320 Meters
	Wind Span	320 Meters	320 Meters	320 Meters
	Weight Span (a) Max (b) Min	500 Meters 50 Meters	500 Meters 50 Meters	500 Meters 50 Meters
4	Wind Pressure on full Project area	52 Kgf per M2	52 Kgf per M2	52 Kgf per M2
5	Temperature (a) Minimum (b) Maximum (c) Every day	5°C 67°C 32°C	5°C 67°C 32°C	5°C 67°C 32°C
6	Factors of safety: Minimum			
	(i)Every day temperature And no wind	4.00	4.00	4.00
	(ii) Minimum temperature And 2/3 maximum wind :	2.00	2.00	2.00
	(iii)Every day Temperature and Full wind (This is as per Indian Electricity Rules, 1956).	2.00	2.00	2.00
7	Relative Humidity Maximum Minimum	100 Per cent 60 Per cent	100 Per cent 60 Per cent	100 Per cent 60 Per cent
8	Iso ceramic level	100 Years	100 Years	100 Years
9	Number of rainy days per year	100 Days	100 Days	100 Days
10	Average rainfall per year Approx.	1150 mm.	1150 mm.	1150 mm.
11	Altitude	Less than 350 Meters	Less than 350 Meters	Less than 350 Meters

APPENDIX – IV

Guaranteed Technical Particulars of Conductor

Sl.No	Description	PANTHER	ZEBRA	Moose
1	Code Word			
2	2.Maker's name address and Country.			
	a) Aluminium rods			
	b) Steel Wire / rods			
	c) Complete Conductor			
3	Stranding and wire diameter			
	a) Aluminium			
	b) Steel			
4	Standard nominal copper Area in sq.mm			
5	Calculated equivalent Aluminium area in sq.mm			
6	Actual aluminium area In sq.mm			
7	Standard area of cross section In sq.mm			
	a) Aluminium strand			
	b) Steel Strand			
	c) Conductor			
8	Diameter of complete Conductor in mm			
9	Minimum ultimate tensile strength of strand, in Kg/sq.mm. Before stranding and after stranding for			
	a) Aluminium strand			
	b) Steel Strand			
10	Guaranteed ultimate tensile Strength of conductor in Kg.			
11	Minimum breaking load in Kg. Before stranding and after Stranding for			
	a) Aluminium strand			
	b) Steel Strand			

12	Purity of aluminium rods.			
13	Zinc coating of steel strand			
	a)Uniformity of coating number and / duration of dips			
	b)Minimum weight of coating gm/sq.mm			
14	Weight in Kg. Per K.M.			
	a) Aluminium			
	b) Steel			
	c) Conductor			
15	Resistance in ohms per Km. At 20°C.			
16	Continuous maximum current Rating of conductor in still Air at 45°Cambient temperature, Considering temp. rise of 50°C.			
17	Modulus of elasticity of Conductor.			
18	Co-efficient of linear expansion Per degree centigrade of.			
	a) Aluminium strand.			
	b) Steel Strand			
	c) Conductor			
19	Percentage of carbon in steel wire			
20	Standard length of each Piece in Km			
21	Initial and final sags and Tension and stringing charts, Whether furnished			
22	Tolerance, if any on standard length			
23	Number of standard length in one reel			

24	Dimensions of the reel in cms.			
25	Weight of the Conductor In one reel in Kg.			
26	Weight of the reel in Kg.			
27	Gross weight of the reel Including weight of the conductor			
28	Whether the conductor will be manufactured as per the relevant Indian Standard Specification & as per Section- IV 'technical specification' of this specification			
29	Whether the conductor will be Tested As per the relevant Indian Standard Specification & as per Section-IV 'Technical specification' of this specification. (Clause-12 of Section – IV of Technical Specification)			
30	Other particulars, if any.			

Signature of the Tenderer

Address

ORISSA POWER TRANSMISSION CORPORATION LTD

SECTION - IV

TECHNICAL SPECIFICATION

FOR

G.I EARTH WIRE

S.NO.DESCRPTION

1. SCOPE
2. STANDARDS
3. MATERIALS
4. SIZE AND CONSTRUCTION
5. LENGTH OF JOINING
6. TESTS AND TEST CERTIFICATES
7. PACKING AND MARKING
8. SAG AND TENSION CHARTS AND SAG TEMPLATE
9. OVERHEAD EARTH CONDUCTORS

TECHNICAL SPECIFICATION FOR G.I. GROUND WIRE.

(7/3.15 mm and 7/3.66mm)

1. SCOPE :

1.1 This specification provides for the manufacture, testing before despatch, supply and delivery of Ground wire for the purpose of earthing and protection of power transmission line, as per the particulars given in Appendix-I attached. The ground wire shall consist of standard galvanized steel wire.

2. STANDARDS :

2.1 The ground wire shall comply in all respect with the Indian Standard (IS) 2141-1979

3. MATERIALS :

3.1 The material offered shall be of best quality and workmanship. The steel wires (Strands) shall be manufactured from steel produced by any suitable process. The steel wire shall not contain sulphur and phosphorous exceeding 0.040 percent each as per IS : 2141-1971.

3.2 The steel wires shall be evenly and uniformity coated with zinc complying with IS: 209-1965 specification for zinc (Retired). Only virgin zinc shall be used and reclaimed zinc is not permitted. The virgin zinc shall be of Zn 99.95 percent quality.

3.3 The content of carbon shall not be more than 0.55 percent, manganese and silicon contents shall be 0.40 to 0.90 and 0.15 to 0.35 respectively.

4. SIZE AND CONSTRUCTION :

4.1 The size of ground wire shall be as given in Appendix-I. The physical properties have been given in the same Appendix. The lay of the strands shall be of lengths as given in the Appendices. The wires shall be so stranded together that when any evenly distributed pulls applied at the end of the completed strands each wire will take on equal share of the pull.

5. LENGTH OF JOINING:

5.1 The ground wire may be supplied in the standard length as per manufacturers standard practice and such length will be specifically indicated in the tender. However random length of ground wire up to a maximum of 10 (Ten) percent may be allowed.

5.2 The length of strand which may be supplied without joints in the individual wires comprising it depends on the length of wire which may be carried by the bobbin in a normal stranding machine. The normal lengths of strand which shall be supplied without joints in individual wires, excluding welds made in the rod before drawing shall be as given in Appendix – I.

5.3 Each coil shall be warranted to contain no weld joints or splice other than in the rod before it is drawn and those permitted in 5.3 above. The wire shall be circular and shall be free from scale or irregularities, imperfections, flow spite and other defects. The zinc coating shall be smooth even and bright.

6. TESTS AND TEST CERTIFICATES:

6.1 Ground wire shall be subjected to the tests as specified in the IS:2141-1979 before despatch.

6.2 All the coils of the galvanized strand shall be of the same grade, diameter and construction manufactured under similar condition shall be grounded to constitute one lot.

6.3 Samples from each lot shall be tested for ascertaining the conformity to the requirements of the ground wire specified herein. The coils selected shall be tested for length of the lay and joints. The lot shall be declared conforming to the requirements of these characteristics if all the coils are found satisfactory. One test specimen from each wire of the strand shall be drawn, from every selected coil and subjected to tensile tests, ductility test and coating test. One specimen of the completed strand from each coil shall be subjected to tensile strength. The lot shall be declared conforming to the requirements of these characteristics if the entire best specimen satisfy the relevant requirements.

6.4 **Chemical Analysis** : One sample shall be drawn from the lot for chemical analysis. Unless otherwise agreed to between the purchaser and supplier the chemical analysis shall be carried out.

6.5 **Tensile Test** : The wire when tested in accordance with IS : 1521-1960 shall have minimum tensile strength specified in the Appendix – I. The tensile strength of the finished strand shall not be less than 95% of the aggregate of the single wires.

6.6 **Ductility test** : The wire shall be subjected to wrapping test in accordance with IS : 1755-1961. When wrapped eight times round its own diameter and on being subsequently straightened the wire shall not break or split.

6.7 **Coating test** : The uniformity of zinc coating shall be tested as per IS: 2633-1964. The wire shall withstand the number of dips specified in Appendix – I.

6.8 Three copies of manufacturers test certificate shall be submitted by the contractor to the purchaser for approval immediately after such tests have been conducted on the strands and the wire.

6.9 The purchaser reserves the right to inspect the material at Manufacturer's works before despatch.

7. PACKING AND MARKING :

7.1 The ground wire shall be supplied in non-returnable reels or drums of non-perishable or treated wood conforming to IS: 1778-1991 specification for Reels and Drums for Bare wire. Each coil shall be provided with a label fixed firmly on the inner part of the coil, bearing the following information.

(a) Trade name, if any.

(b) Name of manufacturer

(c) Type of wire, size and length of wire.

(d) Net weight of the wire.

(e) Total weight, and

(f) Number of lengths on the reel or drum unless otherwise agreed to between the purchaser and the supplier, the stranded wire shall be supplied in 50 Kg. coil.

8. SAG AND TENSION CHARTS AND SAG TEMPLATE :

8.1 The successful tenderer shall be required to submit six copies of sag templates and strings charts for different temperatures and spans, One set of charts shall be ink on tracing cloth. The design data of the lines on which the ground wire will be used are given in Appendix – II

A P P E N D I X – I

TECHNICAL SPECIFICATION OF GROUND WIRE

(i)	Material	:	Steel
(ii)	Purity of material	:	Sulphur and phosphorous contents not exceeding 0.040 percent each. Carbon content not exceeding 0.55 percent. Total silicon contents shall be 0.15 to 0.35 and Manganese contents shall be 0.40 to 0.90 respectively.
(iii)	Stranding and wire diameter	:	7/3.15 mm
(iv)	Weight	:	428 Kg / Km.
(v)	Single wire before stranding	:	
	Diameter of wire	:	3.15 mm
	Tolerance	:	+ 0.060 mm - 0.030 mm
	Minimum elongation in 100 mm.	:	4 mm.
	Minimum breaking strength	:	857 kg.
	Minimum tensile strength	:	85.7 kgf / mm ²
(vi)	Stranded wire length of lay		
	Maximum	:	175 mm
	Minimum	:	145 mm
	Minimum breaking load	:	5810 kg
	Over all diameter	:	9.45 mm
	Modulus of elasticity	:	1.938 x 10 ⁶ Kg/Cm ²
	Co-efficient of linear expansion	:	11.50 x 10 ⁻⁶ per deg. C.
	D.C. resistance at 20°C	:	3.375 Ohms/Km.
(vii)	Zinc coating :		
	Number of one minute dips	:	Three
	Number of half-minute dips	:	One
	Quality of zinc	:	Zn 98 IS:209/1966
	Weight of coating on wire	:	275 g/m ²
	process of galvanising	:	
	Process of galvanising	:	Hot-dip.
(viii)	Joints	:	There shall be no joint in any of the wires constituting the ground wire.
(ix)	Lengths -		
		:	1500 metres.
	Standard length	:	

Tolerance on standard length	:	+ 5 percent
Random lengths	:	Not more than 5 percent of the lengths ordered.
(x) Tests : - Type tests Ultimate tensile strength test.	:	A sample of the finished ground wire when tested in tensile testing machine shall not fail at a stress less than 100% of UTS value of the ground wire. The length of the test sample shall be not less than 5 meters.
Electrical Tests	:	As per BS : 182/1972 and BS : 3229/1960
Routine Tests	:	As per clause No. 6 of IS: 2141 1968. In addition to these tests, the weight and adherence of Zinc coating tests shall be conducted as per clause 4 and 5 of IS : 4826/1968.
(xi) Test Reports	:	Three copies of manufacturer test certificates shall be submitted by the Contracts to the purchaser for approve immediately after such test have been conducted on the galvanised steel strand and the wire.

9. Overhead earth conductors

General (7/3.66mm)

Where earth conductors are erected to provide the specified degree of lightning protection, they shall consist of stranded galvanised steel and shall comply with IEC 888 and IEC 1089 in so far as it applies to steel wires.

Galvanising shall comply with the requirements of IS 2141.

The arrangement of earth conductors shall be such that failure of a single conductor cannot predictably result in a fall across both bus bars in a duplicate bus bar substation.

Technical parameters

SI No.	Parameter	Value
1	Stranding and wire diameter	7/3.66mm
2	Number of strands	1/6
3	Total sectional area	73.65 mm ²
4	Overall diameter	10.98mm
5	Approximate weight	583 kg/km
6	Calculated DC resistance at 20C	2.5 ohms/m
7	Minimum ultimate tensile strength	68.4kN

8	Direction of outer lay	Right hand
9	Tolerances	
9a	Diameter standard	3.66mm
maximum	3.75mm	
minimum	3.57mm	
9b	Lay length standard	181mm
maximum	198mm	
minimum	165mm	
10	Steel composition Carbon	
Manganese	0.4 to 0.9%	
Phosphorous	0.04%	
Sulphur	0.04%	
Silicon	0.1 to 0.35%	
11	Zinc for galvanising	Electrolytic high grade zinc of 99.95% purity to 209 1979

SCHEDULE – C

1. conductor.

a) Nominal area 465 Sq.mm Zebra

b) Stranding 37/4 mm

2. Normal Span 320 meters

Wind Span 320 meters

2.1 Wind Span

a) Max. 500 meters

c) Min. 50 meters

2. Wind Pressure on full

Projected area. 4/52 kg per m²

3. Temperature

a) Minimum 5°C

b) Maximum 67°C

c) Every day 32°C

4. Factors of safety : Minimum

i) Every day temperature and non wind. 4.00

ii) Minimum temperature and 2/3 maximum wind : 2.00

iii) Every day Temperature and full wind 2.00

This is as per Indian Electricity Rules, 1956

5. Relative Humidity.

Maximum 100 percent

Minimum 60 percent

6. Isoceramic level 100/Years

7. Number of rainy days per year 100 days

8. Average rainfall per year 1150 mm Approx.

9. Altitude Less than 350 Meters

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

(To be filled up by the tenderer)

Lot No.	Description of materials	Quantity required.	Desired delivery of	Destination.
i	ACSR Panther	1413.69 KM	Delivery to be completed within 4 months from the date of issue of the purchase order.	OPTCL Stores/ Sites within State of Odisha.
ii	ACSR Zebra	21.915 KM		
iii	ACSR Moose	68.245 KM		
iv	GI earth wire	27.5 KM		

Place:

Date:

Signature of Tenderer
with seal of Company.

PART – II
PRICE BID

1. PRICE:

- (i) Bidders are required to quote their price(s) for goods offered indicating they are “VARIABLE” as per IEEMA PV.
- (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) in e-tender mode, 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.