



ODISHA POWER TRANSMISSION CORPORATION LTD.
(A Government of ODISHA Under Taking)
Regd. Office: Janpath, Bhubaneswar-751022, Odisha
OFFICE OF THE GENERAL MANAGER: ELECT.
EHT (O&M) CIRCLE: CHAINPAL
AT/PO: CHAINPAL COLONY, PIN-759104, and DIST: ANGUL (ODISHA)
[CIN:U40102OR2004SGC007553](#)
Email: ehtm.cle.chp@optcl.co.in

TENDER SPECIFICATION NO. CHP-24/2016-2017

FOR

SUPPLY OF DIFFERENT TYPE OF CLAMP CONNECTOR FOR GRID S/S
MERAMUNDALI UNDER EHT (O&M) CIRCLE, CHIANPAL

Request for online tender documents:-	From dt-21.12.2016 (10.00 Hrs) to dt-04.01.2017(12.30 Hrs)
Last date of submission of online tender: -	up to dt-04.01.2017(17.00 Hrs)
Date of opening of Tender: - (Technical Bid)	05.01.2017(11.30 Hrs)
//Opening date of Price Bid will be intimated to the qualify bidder Later//	

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[SECTION-1]

TENDER CALL NOTICE



ODISHA POWER TRANSMISSION CORPORATION LTD.
(A Government of ODISHA Under Taking)
Regd. Office: Janpath, Bhubaneswar-751022, Odisha
OFFICE OF THE GENERAL MANAGER: ELECT.
EHT (O&M) CIRCLE: CHAINPAL, AT/PO: CHAINPAL COLONY,
DIST: ANGUL (ODISHA), Pin-759104, Email-ehm.cle.chp@optcl.co.in
CIN:U40102OR2004SGC007553

TENDER NOTICE NO. CHP-24/ 2016-17

For and on behalf of ODISHA POWER TRANSMISSION CORPORATION LTD General Manager, EHT (O&M) Circle, Chainpal, invites Tenders from reputed Bidders in Two part bidding system for Supply of different types of CLAMPS and CONNECTORS for Grid S/S Meramundali under EHT (O&M) Circle, Chainpal. The interested bidders would be required to enroll themselves on the tender portal www.tenderwizard.com/OPTCL. Complete set of bidding documents are available at www.tenderwizard.com/OPTCL from 21.12.2016 (10.00 Hrs) up to 04.01.2017 (12.30 Hrs). Interested Bidder may visit OPTCL's official web site <http://www.optcl.co.in> and www.tenderwizard.com/OPTCL for detail specification.

Submission of Bids: -A. 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 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 submitted according to the instruction, stipulated above. The participants to the tender should be registered under IT Act / Service tax Act. So the interested bidder followed the above website for registration. **For any e-tendering assistant contact help desk number mentioned below.(Bangalore – 080- 40482000.)**

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.

NOTICE INVITING TENDER

For and on behalf of the ODISHA POWER TRANSMISSION CORPORATION LTD., the undersigned invites bids under Two-part bidding system in e- tendering mode only as per the following details. The bidders can view the tender documents from website free of cost. The bidders who want to submit bid shall have to pay a nonrefundable amount including VAT @ 5% towards Tender Paper cost, in the form of DD only, drawn in favour of EHT (O&M) Circle Chainpal, Payable at UCO Bank, TTPS Branch (In case the DD made from any other nationalized bank payable at any clearing branch at Talcher/Angul will be allowed, But the bidders have to deposit the collection fee (Bank transaction fee) along with the paper cost. The collection fee & Paper cost is Nonrefundable) at the office of the undersigned on or before the opening of tender.

The bidders shall have to pay EMD amount as above & submit the copy of proof/payment documents at the office of the undersigned on or before the opening of tender.

The bidders shall have to pay a nonrefundable amount in the table below to K.S.E.D.C.Ltd, towards the tender processing fee through e-payment gateway.

Sl. No	Tender Specification No./Lot	Description of work/Item	INDIAN RUPEES				
			Manufacturer	Estimated Cost	Earnest Money Deposit.	Cost of Tender Paper+ VAT@5%	Tender Processing Fee.
1	CHP-24/2016-17	Supply of different types of CLAMPS and CONNECTORS for Grid S/S Meramundali under EHT (O&M) Circle, Chainpal	Manufacturing more than 5 Years till publication of bid	23,23,320.00	23,234.00	6300.00 (6000+300)	2672.00

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.

Detail Documents of bidders required: AS STIPULATED IN SECTION-II, OF THE TENDER SPECIFICATION.

N.B:-

- i) All the materials supplied shall be of good quality relevant to concern IS. Engineer in charge shall ensure the quality of material supplied.
- ii) The Rate quoted by the bidder will be judged as per the Local Market.
- iii) The Bidder must fill the both Technical & price bid for the above tender.
- iv) All the materials will be supplied as per sample. So the bidder may visit the 400/220/132/33KV Grid S/S Meramundali for material size before quoting price.

GENERAL MANAGER (Ele)
EHT (O&M) CIRCLE, CHAINPAL

Energy is precious. Save it.

[SECTION-II]

INSTRUCTION TO BIDDER

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 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 submitted according to the instruction, stipulated above. The participants to the tender should be registered under IT Act / Service tax Act.

1. For all the users it is mandatory to procure the Digital Signatures.
2. Contractors / Vendors / Bidders / Bidders are requested to follow the website www.tenderwizard.com/OPTCL for Registration:
3. **For any e-tendering assistant contact help desk number mentioned below.**

• **Bangalore – 080- 40482000.**

2. Division of Specification.

- | | |
|-----------------|--|
| 1. SECTION –I | :TENDER CALL NOTICE |
| 2. SECTION –II | :INSTRUCTION TO THE BIDDER |
| 3. SECTION –III | :GENERAL TERMS & CONDITION OF CONTRACT |
| 4. SECTION –IV | :TECHNICAL BID & PRICE BID |
| 5. SECTION –V | :LIST OF ANNEXURE |

The Bidders are required to submit the tenders in **Two-part** bidding.

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

The Purchaser may alter the quantities of any ITEM 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 and vice versa. Orders may also be split among more than one bidder for any particular item, if considered necessary in the interest of the OPTCL.

4. 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.

5. 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.

6. Earnest money deposit:

The Tenders shall be accompanied by Earnest Money deposit of value specified in the notice inviting tenders **against each LOT**. Tenders without the required EMD will be rejected out rightly

The earnest money deposit shall be furnished in shape of

- (i) **DD** in favour of EHT (O&M) Circle, Chainpal, (In case the DD made from any other nationalized bank payable at any clearing branch at Talcher/Angul will be allowed, But the bidders have to deposit the collection fee(Bank transaction fee) along with the paper cost. The collection fee & Paper cost is Nonrefundable)

NOTE:-

- (i) No adjustment towards EMD shall be permitted against any outstanding amount with the **ODISHA POWER TRANSMISSION CORPORATION LTD.**
- (ii) In the case of un- successful bidder, the EMD will be refunded after finalization of the tender. In the case of successful Bidder, this will be refunded only after award of contract & on submission of BG/DD as security deposit.
- (iii) 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.
- (iv) EMD will be forfeited if the bidder fails to accept the purchase order and/or work order issued in his favour or to execute the order, placed on them.
- (v) Tenders not accompanied by Earnest Money shall be disqualified.

7. Validity of the Bids: -

The tenders are requested to keep the validity of their offer for a period of **180** days from the date of opening of the tender and Rate remains same throughout the Validity period failing which the tenders will be rejected.

8. PRICE: -

The bidders are advised to quote their rate as per the price schedule attached with this specification and shall remain firm inclusive of all taxes & duties, labour charges etc. within the validity of the tender. However Service tax will be paid extra as per Govt. Prevailing rule.

9. Bidders to be fully conversant with the clauses of the Specification:

Bidders 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 bidder may seek clarification in writing from the GM EHT (O&M) Circle, Chainpal, This, however, does not entitle the bidder to ask for time beyond due date, fixed for receipt of tender.

10. Documents to Accompany Bids.

Bidders are required to submit tenders in the following manner:

- [i] For E-Tender, all the relevant documents scanned copy, EMD, Paper cost & Tender processing proof scanned copy should be uploaded only in PDF format.

11. Conditional Offer:

Conditional offer shall not be accepted.

13. Qualification of Bidder:

The bidder must have the following documents to qualify.

i) Manufacturer (More Than 5 Years)

ii) Valid PAN/ TIN.

iii) VAT Regtd./VAT CC

iv) Experience Certificate (Order value more than 10.00Lakhs in a single order)

v) Service Tax Registration Certificate (As applicable)

14. CONSIGNEE/ VERIFYING OFFICER:-

The Assistant General Managers/Managers/Dy Managers in charge of Grid S/S Meramundali will be the consignee for the contract for respective Sub-Division.

15. PAYING OFFICER:-

The DGM, EHT (O&M) Division, Meramundali is the paying officer for this Contract.

16. 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 Bidder.
- (ii) Notice inviting tender shall form part of this specification.
- (iii) The EMD, if any, shall be returned to the unsuccessful bidders.
- (iv) It should be distinctly understood that the price bid shall contain only details/documents relating to price, as mentioned herein above.
- (ix) The Bidder must submit the EMD amount, cost of tender document and Tender processing fee in a sealed cover envelope super scribing the tender specification number, Tender Notice No & Date opening of tender clearly on the envelope cover. The said envelope is to be submitted in the office of the Purchaser before Opening of the Tender else tender will be out rightly Rejected.

[SECTION-III]

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

1.0 Scope of the contract:

Supply of different type of CLAMP CONNECTOR for Grid S/S Meramundali under EHT (O&M) Circle, Chainpal. This Specification covers design, manufacture, testing at manufacturer's Works for **Supply of different types of CLAMPS and CONNECTORS for Grid S/S Meramundali** shall be **CONFIRMING TO ISS AND IEC**. The firm shall submit the samples of different items as mentioned in schedule of quantity usual for the efficient performance and satisfactory maintenance. Such part shall be deemed to be within the scope of contract. The AGS type clamps shall have inbuilt AGS clamps/PA Rods.

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 General Manager, EHT (O&M) Circle, Chainpal 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 Contractor" 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, articles to be provided under the contract by the Contractor.
- 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.
- 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 "FOR Destination costs" shall mean the cost at our work site. The cost is inclusive of all taxes & duties etc. , but excluding Service tax.
- 2.12 The term "Contract document" shall mean and include GTCC, specifications, 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. **Price:** -(a) The price quoted should be firm, F.O.R. destination inclusive of freight, Insurance, Packing, Forwarding charges inclusive discount if any.
(b) Taxes, if any shall be mentioned extra. The bidder may quote rate in respect of different make Materials as per scheduled.
4. **Penalty for Delay in Delivery:** If the supplier shall fail to deliver the materials within the delivery period as stipulated under clause **No.7 (Section-III)** of this Tender document or any extension granted there to, the purchaser shall recover from the supplier penalty for a sum of half percent (i.e. 0.5 percent) of the contract price for each calendar week or part thereof of delay. However the total amount of penalty shall not exceed 5% (five percent) of the contract/undelivered items price. Materials will be deemed to have been delivered only when all the component parts are also delivered. If certain components are not delivered in time, the supply will be treated as delayed until such time the missing/ undelivered parts are delivered.
5. **Language and measures:**
All documents pertaining to the contract including specifications, schedule, notices, correspondence, operating and maintenance instructions or any other writing shall be written in English language. The metric system of measurement shall be used exclusively in this contract.
6. **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 OPTCL. Orders may also be split up between different Bidders on individual merits of the Bidder. The Purchaser has exclusive right to alter the quantities of work at the time of placing final work order.
7. **Supply/Delivery of Materials:**
The Material should be supplied within 60 days of the award of the contract at destination. Failing which purchase order shall be liable for cancellation with forfeiture of Earnest money/ Security Deposit. However early delivery shall be preferred
8. **Force Majeure:**
The Contractor 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 Contractor 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.
9. **Extension of time:-**
If the delivery of materials is delayed due to reason beyond the control of supplier, the supplier shall without delay give justification. The purchaser on receipt of such notice may agree to extend the contract delivery date if reasonable but without prejudice to other terms and conditions of this contract.

10. DOCUMENT VALIDITY:

Scanned copies of PAN/TIN, Service Tax Registration no.(Optional) & Manufacturer/Dealer License with VAT CC/VAT Regd. valid on the date of opening of tender should be uploaded along with tenders, failing which the tender will be rejected. The contractor or their authorized representatives should produce the original documents for verification within 10 days from the date of opening of tender. Those who fail to produce the same and found not to be valid at the time of tender opening, their tenders will be rejected.

11. Security deposit against 100% payment:

The bidders whose offer qualifies for acceptance will be awarded order for the contract, the bidder shall have to deposit security amount equal to 10% (ten percent) of contract value in shape of bank draft/Bank Guarantee drawn in favour of Paying officer, of OPTCL within 15days as per proof of tender acceptance and valid for a period of 14 months from the date of completion of contract with due verification. The security deposit shall be released after successful completion of **Guarantee period** is over on receipt of application for this purpose and after adjustment of any dues. No Interest shall be paid to the bidder towards the security deposit so deposited by the Bidder. In case of Non fulfillment of contractual obligation by the bidder, the same so deposited shall be forfeited without notice to the bidder. The Security Deposit should be submitted separately for each Division.

12. Terms of Payment (100% payment against Security Deposit) .

100 % Payment with taxes etc. shall be made within 30 days after receipt of materials in full and in good condition & verification thereof by the consignee subject to availability of funds from Head office.

13. Transit Insurance: Insurance of materials is to be done by the supplier at their own cost. The responsibility of delivery of the materials at destination in good condition rests with the supplier. Any claim with the insurance company Railway authority/ Road transport authorities arising due to loss or damage in transits has to be settled by the supplier. The supplier shall undertake free replacement of materials damage or lost which will be reported by the consignee within 30 Days of the receipt of the materials at destination without waiting for the settlement of the claims with the carriers and underwriters.

14. Validity.

Prices and conditions contained in the offer should be kept valid for a minimum period of 6months from the date of opening of the tender, failing which the tender shall be rejected.

15. Despatch Instructions: The materials should be securely packed and dispatched by Rail/ road transport at locations as mentioned below to the consignee. The cost of transportation will be borne by the supplier.

16. Free Replacement: Free replacement of materials lost/ damaged due to transit shall be made immediately on receipt of the intimation from the consignee / paying Officer without awaiting for settlement of the claim of bidders with Railway/ Lorry/ Insurance Company.

17. GUARANTEE:- The materials covered under this contract should be guaranteed for trouble free and satisfactory performance against any defect in design, materials and workmanship for a Period of 18 month from the date of dispatch or 12 month from the date of installation which is earlier and the Manufacturer warranty as provided, which is more will be acceptable (In addition to above warranty) equal or more than above is acceptable. So the Firm has to submit Guarantee Certificate in triplicate to the undersigned for approval before release of payment. Any defect noticed during this period should be rectified / replaced by the firm free of cost provided such defects are due to faulty design, bad workmanship or bad materials used. ***The replaced materials should also have similar guarantee.***

18. 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.

19. Correspondences.

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

Official Address of the Parties to the Contract

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

- [i] **Purchaser:** General Manager EHT (O&M), Circle, OPTCL, Chainpal,(Odisha)

Email id:- ehtm.cle.chp@optcl.co.in

- [ii] **Contractor:** Address

Telephone No.

Fax No.

20. Outright Rejection of Tenders

Tenders shall be outright rejected if the followings are not complied with.

- [i] The bidder shall submit the bid in electronic mode only and shall submit the cost of tender document and Tender processing fee on or before the date and time of opening of the bid.
- [ii] The Tender shall not be submitted telegraphically or by FAX.
- [iii] The prescribed EMD/Paper Cost/Tender processing fee shall be submitted on or before the last date and time of submission of the bid.
- [iv] The Tender shall be kept valid for a minimum period of **06Months** from the date of opening of tender.
- [v] The schedule of prices should be filled up fully to indicate the break-up of the prices including taxes and duties. Incomplete submission of this schedule will make the tender liable for rejection.
- [vi] The Bidder should quote 'FIRM' price only and the price should be kept valid for a minimum period of **06Months** from the date of opening of the tender.

21. DEVIATION FROM SPECIFICATION:

It is in the interest of the Bidders to study the Specification, works etc. specified in the tender should thoroughly before tendering so that, if any deviations are made by

the Bidders the same are prominently brought out on a separate sheet under heading "Deviations".

A list of deviation shall be enclosed with the Tender. Unless deviation in scope, technical and commercial stipulations are specifically mentioned in the list of deviations, it shall be presumed that the Bidder has accepted all the conditions stipulated in the Tender Specification, notwithstanding any exemptions mentioned therein.

22. CONTRACTOR TO INFORM HIMSELF FULLY:

The Contractor shall examine the instructions to Bidders, 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 additional allowances except as otherwise provided therein will be levied. The owner shall not be responsible for any misunderstanding or incorrect information obtained by the Contractor other than the information given to the Contractor in writing by the owner.

[SECTION-IV]

TECHNICAL SPECIFICATION & PRICE BID

TECHNICAL SPECIFICATION:-

1.0 All the bidders will be intimated after opening of Technical Bid to show sample test of all items at Grid S/S Meramundali in the presence of a Technical Committee constituting at least Two AGM, One Divisional Head heading with GM, EHT (O&M) Circle, Chainpal. Also one Engineer/Committee of OPTCL assigned/framed by undersigned must visit the manufacturer workshop before opening of Price Bid of Tender. Based on the report of both Engineer/committee (for workshop verification) & Committee (for sample test), the bid will be finalized by the Purchase committee to qualify/reject the bidder. Then the Price Bid will be opened of the qualified bidder only.

2.0 STANDARDS

The materials covered under this Specification shall comply with the requirement of the latest version of the following standards as amended up to date, except where specified otherwise.

i)	IS:5561 - 1970	Aluminium Clamps and Connectors
ii)	IS:2633	Method of testing of uniformity of coating on zinc coated articles

3.0 MATERIALS AND DESIGN

Aluminium and aluminium alloys, malleable iron and forged steel, having required mechanical strength, corrosion resistance and mach inability depending on the types of application for which accessories / fittings are needed, shall be employed. In manufacturer of the accessories / fittings, the composition of the aluminium alloys used shall be made available to Employer if required for verification.

The materials offered shall be of first class quality, workmanship, well finished and approved design. All castings shall be free from blow-holes, flaws, cracks of other defects and shall be smooth, close grained and true forms and dimensions. All machined surfaces should be free, smooth and well finished.

Clamping bolts shall be provided with self locking nuts as designed to prevent corrosion of the threads. All ferrous parts including the messenger cable shall be hot dip galvanised. The end of the messenger cable shall be effectively sealed to prevent corrosion.

04.0 CLAMP

04.1 ARMOUR GRIP SUSPENSION CLAMPS

Armour Grip Suspension Clamp shall consist of 2 neoprene insert, one set of armour rods made of aluminium alloy, two aluminium housing having inner profile matching with the profile of the armour rods page and supporting strap made of aluminium alloy. The A.G. type suspension clamp shall be designed, manufactured and finished as to have a suitable shape without sharp edges at the end and to hold the

respective conductor properly. It should, however, have sufficient contact surface to minimise damage due to fault current.

The A.G. type suspension clamp shall permit the conductor to slip before the occurrence of failure of the conductor and shall have sufficient slip strength to resist the conductor tension under broken wire conditions. The clamp shall have slip strength of not less than 15 % of respective conductors.

04.2 TENSION CLAMPS

The Tension Clamps shall be made out of aluminium alloy and of compression type suitable for PANTHER / ZEBRA/MOOSE conductor for both AAAC and ACSR. The tension clamps shall not permit slipping or damage to failure of the complete conductor or any part thereof at a load less than 90% of the ultimate strength of conductor. The mechanical efficiency of tension / clamps shall not be affected by method of erection involving come / along or similar clamps or tension stringing operation during or after assembly and erection of tension clamp itself. The tension clamp shall be of a design that will ensure unrestricted flow of current without use of parallel groove clamps. The clamps shall be as light as possible.

04.3 UNIVERSAL JOINTING COMPOUND

BENDEX-HV' Universal jointing compound which is a chemically inert compound to be used as filler for the compression joints and dead end clamps to be supplied.

04.4 TESTS, TEST CERTIFICATE AND PERFORMANCE REPORTS

Five sets of type and routine test certificates and performance reports are to be submitted by the bidder.

05. CLAMPS CONNECTORS

05.1 SCOPE:

This specification covers the design, manufacture, assembly, inspection, testing, packing and delivery of clamps & connectors (fittings), suitable for "MOOSE" Conductor (54/7/3.53 mm) or "Zebra" Conductor (54/7/3.18),"Panther" Conductor(30/7/3.0 mm). The material offered shall be complete with all components that are necessary for efficient operation. Such parts shall be deemed to be within scope of the supply whether specifically mentioned or not. Fittings shall conform in all respect to the highest standard of engineering, design, and workmanship and shall be capable of performing trouble free continuous operation.

05.2 CLIMATIC CONDITIONS:

The overall climate is moderate hot, humid, tropical, highly polluted and conducive to rust and fungus growth. The clamps/connector shall be given tropical and fungicidal treatment and shall be capable of satisfactory operation under the hot and humid climatic conditions that would prevail at sites. The climatic conditions are prone to wide range of variation in ambient conditions. The materials offered shall be suitable for installation at any of the switchyards in Odisha.

5.2 All casting shall be free from shrinking, blow holes, surface blisters, cavities, cracks, other defects and quality of product shall be uniform throughout. All sharp edges and corners shall be blurred and rounded off.

5.3 Assembly shall be designed and manufactured in such a way so as to have minimum

contact resistance.

5.4 The fittings offered shall be inherently resistive to atmospheric corrosion or be suitable to protect against corrosion both during storage as well as in service.

5.5 The clamps/connector shall not cause any damage to the conductor in any way.

5.6 All bolts, clamps, etc. shall have suitable locking arrangements to safe guard against vibration and loosening.

5.7. No part of a clamp shall be less than 15 mm thick for fittings suitable for ACSR Panther/ Zebra/ Moose conductor.

5.8 All ferrous parts shall be hot dip galvanized confirming to IS:2633.

5.9 For bimetallic connectors, copper alloy liner of minimum thickness of 2 mm shall be cast integral with aluminum body.

5.10 Connectors shall be designed to be corona free in accordance with the requirements stipulated in IS: 5561

5.11 The required bolts and nuts for terminal connector must be hot dip galvanized/stainless steel with suitable check nut.

6.1 MATERIAL:

The clamps and connectors shall be made of materials listed below:

i) For connecting ACSR conductor aluminum alloy casting conforming to designation A6 of IS: 617.

ii) Bolts, nuts, plain washers and spring washers for all items: Hot dip galvanized mild steel/stainless steel.

iii) Split pin shall be made of stainless steel.

6.2 The clamps shall be designed to withstand the flow of continuous current as follows:

ACSR Moose/Zebra/ Panther Conductor- 2000 Amp

The temperature rise when carrying full load current shall not exceed 45°C above site ambient temperature of 40°C. The rated current for which the clamp connectors are designed with respect to the specified ambient temperature shall be marked on each component of clamps and connectors.

7.0 DESIGNS:

Responsibility of satisfactory design of the clamps/connectors to safely withstand the specified mechanical stresses and carry the rated current without exceeding the temperature rise specified, shall solely rest with the bidder. For this purpose, a minimum factor of safety 2 (two) shall be taken into account.

8. 0 TEST:

Individual fittings, clamps, connectors shall be subjected to following Type, Acceptance and Routine Tests.

8.1 CLAMPS & CONNECTORS IS:5561 -(1970):

Type Test:

a) Tensile test:

b) Resistance test:

c) Temperature rise test. :

d) Short time current test:

e) Dimensional check:

f) Galvanizing test:

g) Corona test :} For the fittings suitable for twin

h) Radio interference test. :} Moose and above size

9.0 INTERCHANGEABILITY:

All fittings shall be of standard design and made to guage or jig and shall be

interchangeable in all respects with similar items.

10.0 (a) True copies of all the Type Test Certificates of Govt. recognized

Laboratory in respect of the offered items only shall be furnished.

(c) Descriptive literature, dimensional drawings catalogues, etc. shall be submitted for the offered items.

(d) Offers without samples and type tests reports will be out rightly rejected.

SPACER: General : Spacers shall conform to IS:10162 . Spacer are located at a suitable spacing to limit short circuit forces and also to avoid snapping of sub conductors during short Circuit condition.

Constructional features: No magnetic materials shall be used in the fabrication of spacers except for GI Nuts & Bolts.

Spacers design shall be made to take care of fixing & removing during installation & maintenance. The design of spacer shall be such that the conductor does not come in contact with any sharp edge.

Fasteners: bolts, nuts & washers.

- 1.All bolts and nuts shall conform to IS-6639 – 1972. All bolts and nuts shall be Hot DIP galvanized. All bolts and nuts shall have hexagonal heads, the heads being truly concentric, and square with the shank, which must be perfectly straight.
- 2.Bolts upto M16 and having length upto ten times the diameter of the bolt should be manufactured by cold forging and thread rolling process to obtain good and reliable mechanical properties and effective dimensional control. The shear strength of bolt for 5.6 grade should be 310 Mpa minimum as per IS-12427. Bolts should be provided with washer face in accordance with IS-1363 Part-I to ensure proper bearing.
- 3.Fully threaded bolts shall not be used. The length of the bolt shall be such that the threaded portion shall not extend into the place of contact of the component parts.
- 4.All bolts shall be threaded to take the full depth of the nuts and threaded enough to permit the firm gripping of the component parts but not further. It shall be ensured that the threaded portion of the bolt protrudes not less than 3 mm and not more than 8 mm when fully tightened. All nuts shall fit and be tight to the point where shank of the bolt connects to the head.
5. Flat washers and spring washers shall be provided wherever necessary and shall be of positive lock type. Spring washers shall be electro-galvanized. The thickness of washers shall conform to IS-2016-1967.
6. The bidder shall furnish bolt schedules giving thickness of components connected, the nut and the washer and the length of shank and the threaded portion of the bolts and size of holes and any other special details of this nature.
7. To obviate bending stress in bolt, it shall not connect aggregate thickness more than three time its diameter.
8. Bolts at the joints shall be so staggered that nuts may be tightened with spanners without fouling.
9. Fasteners of grade higher than 8.8 are not to be used and minimum grade for bolts shall be 5.6.

GENERAL:

1. All ferrous parts including fasteners shall be hot dip galvanized, after all machining has been completed. Nuts may however be tapped (threaded) after galvanizing and the threads oiled. Spring washers shall be electro-galvanized. The bolt threads shall be undercut to take care of the increase in diameter due to galvanizing. Galvanizing shall be done in accordance with IS-2629-1985 and shall satisfy the tests mentioned in IS 2633-1986. Fasteners shall withstand four dips while spring washers shall withstand three dips of one-minute duration in the standard Preece test. Other galvanized materials shall be guaranteed to withstand at least six successive dips each lasting one minute under the Standard Preece test for galvanizing.
2. The zinc coating shall be perfectly adherent of uniform thickness, smooth, reasonably bright, continuous and free from imperfections such as flux, ash, rust stains, bulky white deposits and blisters. The zinc used for galvanizing shall be of grade Zn 99.95 as per IS 209-1979.
3. Pin balls shall be checked with the applicable "G)" gauges in at least two directions, one of which shall be across the line of die flashing and the other 90 deg. to this line. 'NO GO' gauges shall not pass in any direction.
4. Socket ends, before galvanizing shall be of uniform contour. The bearing surface of socket ends shall be uniform about the entire circumference without depressions or high spots. The internal contours of socket ends shall be concentric with the axis of the fittings as per IS 2486/IEC-120. The axis of the bearing surfaces of socket ends shall be coaxial with the axis of the fittings. There shall be no noticeable tilting of the bearing surfaces with the axis of the fittings.
5. All current carrying parts shall be so designed and manufactured that contact resistance is reduced to minimum.
6. Welding of aluminum shall be by inert gas shielded tungsten arc or inert gas, shielded metal arc process. Welds shall be clean, sound, smooth, and uniform without overlaps, properly fused and completely sealed. There shall be no cracks, voids incomplete penetration, incomplete fusion, under-cutting or inclusions Porosity shall be minimized so that mechanical properties of the aluminum alloys are not affected. All welds shall be properly finished as per good engineering practices.

Electrical Design:

The heavy duty suspension, and heavy duty tension insulator sets shall all comply with the technical requirements of schedule C and ISS and IEC and satisfy the test requirements stated in Section-7.

Mechanical design:

The design shall be such that stresses due to expansion and contraction in any part of the insulator shall not lead to the development of defects.

PRICE BID:-**1. PRICE:**

- (i) Bidders are required to quote their price(s) as 'FIRM'.
- (ii) The prices quoted shall be unit price for work including supply of required materials as per the tender specification at the consignee's site/store inclusive of all taxes and duties but excluding service tax.

2. PROPER FILLING UP OF THE PRICE SCHEDULE:

The tenderer should fill up the price schedule properly and in full in the bid sheets provided in .xls format and up-load the same without changing the file name. The tender may be rejected if the schedule of price is submitted in incomplete form.

N.B-The Bidder must fill the price bid along with the technical specification for complete contract; no partial bid or incomplete of excel sheet will be accepted.

N.B-All the materials will be supplied as per sample. So the bidder may visit the 400/220/132/33KV Grid S/S Meramundali for material size before quoting price.

Sl. No	Description of Material (as per sample)	UOM	Quantity	Unit Ex-Price in Rs.	Total taxes including F & I in Rs	Unit Price including all Taxes in Rs.	Total Amount in Rs.
1	Al clamps for 25 mm C.T stud to Zebra Conductor	Nos	15				
2	Al clamps for 30 mm C.T stud to Zebra Conductor	Nos	15				
3	Al clamps for 30 mm C.T stud to 80mm dia. Al pipe	Nos	15				
4	Al clamps for 36 mm C.T stud to Zebra Conductor	Nos	15				
5	Al clamps for 36 mm C.T stud to 80mm dia. Al pipe	Nos	15				
6	Al clamps for 36 mm C.T stud to 120mm dia. Al pipe	Nos	24				
7	Al clamps for 40 mm C.T stud to Zebra Conductor	Nos	15				
8	Al clamps for 40 mm C.T stud to 80mm dia. Al pipe	Nos	15				
9	Clamps for C.T pad to Zebra Conductor (Bi-metallic pad)	Nos	20				
10	Isolator pad to Zebra Conductor (Bi-Metallic pad)	Nos	60				

11	Clamps for Isolator pad to 80mm dia Al pipe (Bi-metallic pad)	Nos	66				
12	L-Clamps for Isolator pad to 80mm dia Al pipe (Bi-metallic pad)	Nos	20				
13	Isolator pad to 120mm dia Al pipe (Bi-metallic pad)	Nos	10				
14	Breaker pad to 80mm dia Al pipe (Copper bond,Current carrying Capacity=1200Amp)	Nos	68				
15	Clamps for 75*75*12mm Al pad to Zebra Conductor	Nos	60				
16	14 bolted Al. 'T' Clamps for Zebra Conductor	Nos	108				
17	14 bolted Al. 'T' Clamps for Panther (run) to Zebra Conductor (drop)	Nos	30				
18	P.G Clamps suitable for Zebra to Zebra Conductor (4 bolted)	Nos	50				
19	P.G Clamps for panther Zebra to Zebra Conductor (4 bolted)	Nos	20				
20	P.G Clamps for panther Moose to Moose Conductor (8 bolted)	Nos	20				
21	Rigid Clamp suitable for 80mm dia Alu.pipe (8 bolted)	Nos	40				
22	Flexible joint Clamp suitable for 80mm dia Alu.pipe	Nos	60				
23	Flexible Copper bond suitable for 1200 Amp Cont. Current rating (300mm length,rectangular end)	Nos	120				
24	Flexible Copper bond suitable for 200Amp Current rating (300mm length,rectangular end)	Nos	300				
25	Space for twin Moose Conductor	Nos	50				
26	Spacer for Twin Moose Conductor to single Zebra conductor drop	Nos	30				
27	8 bolted Moose-Moose tee clamp	Nos	30				
28	Bi-metallic Al Clamp for 30mm CT Twin stud to 120 mm dia. Al pipe	Nos	15				

29	Isolator P.I 40mm stud to 120 mm dia. Al pipe	Nos	15				
30	Isolator P.I 40mm stud to Twin Moose conductor	Nos	15				
31	Clamps for P.I base to 120mm dia pipe	Nos	15				
32	Clamps for W.T pad to Twin Moose Conductor	Nos	15				
33	Al Clamps for Twin Moose drop to 120mm dia Al pipe run	Nos	20				
34	P.I base to 120mm Al pipe joint	Nos	15				
35	25mm Bi-Metallic stud (CVT) to Twin Moose Conductor	Nos	15				
36	80mm dia(O.D) 5mm thick Al pipe (6mtr X 33nos.=198mtr)	Kg	630				
A	GRAND TOTAL						
B	Estimated Price including all Taxes & Duties						23,23,320.00

[SECTION-V]

[LIST OF ANNEXURES]

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

1	Supplier information form	ANNEXURE-I
2	Abstract of terms and conditions to accompany Section-II	ANNEXURE-II
3	Declaration Form	ANNEXURE-III
4	Bank Guarantee Form	ANNEXURE-IV

ANNEXURE - I

SUPPLIER INFORMATION (Fill in Excel sheet provided in Technical Bid)

SL. No.	The bidder shall furnish general information in the following format	
1	NAME OF THE BIDDER	
2	Address:-	
3	City	
4	Pin Code	
5	Contact person's Name :-	
6	Telephone No. office & Residence:-	
7	FAX No:-	
8	EMAIL:-	
9	VAT/CST REGD. No:	
10	VAT CLEARANCE CERTIFICATE	
11	Manufacturer certificate	
12	PAN NO.	
13	Service Tax Regd. Certificate	

ANNEXURE-II

ABSTRACT OF GENERAL TERMS AND CONDITIONS OF CONTRACT [COMMERCIAL] TO
ACCOMPANY (Fill in Excel sheet provided in Technical Bid)

1	(a) Cost of tender document D.D. No. & Date (b) Earnest money deposit furnished D.D. No. & Date. (c) Tender processing fee E-payment	
2	Deviations to the Specification in any (list enclosed or not)	Yes/No
3	Whether agreeable to OPTCL's terms	Yes/No
4	Whether agreeable to furnish Security Deposit / BG in case his tender is successful.	Yes/No
5	Whether agreeable to contractor responsibility clause	Yes/No
6	Terms of Payment : Whether agreeable to OPTCL's standard terms of payment or not	Yes/No
7	Nature of Price : Quoted	Yes/No
8	Penalty & Recovery : Whether agreeable to OPTCL's terms or not	Yes/No
9	Transit Insurance: Whether agreeable to OPTCL's terms or not	Yes/No
10	Validity: - Whether agreeable to OPTCL's terms or not.	Yes/No
11	Delivery: - Whether agreeable to OPTCL's terms or not.	Yes/No
12	Guarantee: - Whether agreeable to OPTCL's terms or not.	Yes/No
13	Xerox copy of Service Tax Registration no.(submitted)	Yes/No
14	Xerox copy of PAN card (submitted)	Yes/No
15	Xerox copy of VAT registration certificate (submitted)	Yes/No
16	Xerox copy of valid VAT clearance certificate (submitted)	Yes/No
17	Xerox copy of Manufacturer's Certificate(submitted)	Yes/No
18	Whether agreeable for sample test before opening of Price Bid	Yes/No

ANNEXURE-III

DECLARATION FORM (Fill the Form & Scanned copy have to upload)

To

General Manager (Elect.)
E.H.T. (O&M) Circle, OPTCL, Chainpal

Sub:- Tender Specification No. - _____

Sir,

1. Having examined the above specification together with Tender conditions referred to therein I/We the undersigned hereby offer to supply the materials covered thereon 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 delivered within the time specified in the Tender.
3. *I/We here 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 (Strike out whichever is not applicable) Cash / Money order / D.D. / remitting the cost of tender, and this has been acknowledged by your letter No. _____ Dated: _____ here with.
5. In the event of Tender being decided in my / our favour, I / We agree to furnish the DD/Composite B.G. towards Security Deposit in the manner of acceptance of PO/WO of ODISHA POWER TRANSMISSION CORPORATION LTD. and for the sum as applicable to me / us per **Clause – 11 of Section – III** 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 _____ 20 15_____

Yours faithfully,

Signature of Bidder
with Seal of the Company

(This form should be fully filled up by the Bidder and uploaded at the time of submission of tender)

*(strike out whichever is not applicable)

ANNEXURE-IV
PROFORMA FOR COMPOSITE BANK GUARANTEE FOR SECURITY DEPOSIT PAYMENT AND PERFORMANCE

This Guarantee Bond is executed this _____ day of _____ 2015 by us the _____ Bank at _____
P.O. _____ P.S. _____
District _____ State _____

1. WHEREAS the ODISHA POWER TRANSMISSION CORPORATION LTD., a body corporate constituted under the Electricity Act, 2003 [hereinafter called “the OPTCL” which shall include its successors and assigns has placed orders No. _____ Date _____ [hereinafter called “The Agreement”] on M/s. _____

[hereinafter called “The Supplier”] which shall include its successors & assigns for supply of materials.

AND WHERE AS the supplier has agreed to supply materials to the OPTCL in terms of the said agreement

AND WHEREAS the OPTCL has agreed [1] to exempt the supplier from making payment of Security [2] to release 100% payment of the cost of materials as per the said agreement and [3] to exempt from performance guarantee on furnishing by the Supplier to the OPTCL, a Composite bank Guarantee of the value of 10 % [ten percent] of the contract price of the said agreement.

NOW THEREFORE, in consideration of the OPTCL having agreed [1] to exempt the Supplier from making payment of Security [2] releasing 100% payment to the Supplier and [3] to exempt from furnishing performance guarantee in terms of the said agreement as aforesaid, we, the

_____ [Bank][hereinafter referred to as „the Bank“] do hereby undertake to pay to the OPTCL an amount not exceeding Rs. _____

[Rupees _____] against any loss or damage caused to or suffered by or would be caused to or suffered by the OPTCL by reason of any breach by the said Supplier [s] of any of the terms or conditions contained, in the said agreement.

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

[Rupees _____]

3. We the _____ Bank } also undertake to pay to the OPTCL any money so demanded notwithstanding any dispute or disputes raised by the supplier [s] 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 there under and the Supplier [s] shall have no claim against us for making such payment.

4 We, (_____ Bank) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to do so enforceable till all the dues of the OPTCL under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till Managing Director, ODISHA POWER TRANSMISSION CORPORATION LTD. certifies that the terms and conditions of the said agreement have been fully and properly carried out by the said Supplier [s] and accordingly discharges this Guarantee.

Unless a demand or claim under this guarantee is made on us in writing on or before the [Date _____], we shall be discharged from all liability under this guarantee thereafter.

5. We, (_____ Bank) further agree that the 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 agreement or to extend time of performance by the said Supplier [s] and we shall not be relieved from our liability by reason of any such variations or extension being granted to the said supplier [s] or for any forbearance, act or omission on the part of the OPTCL or any indulgence by the OPTCL to the said Supplier [s] or by any such matter or thing whatsoever which under the law relating to sureties would but these provisions have 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 supplier [s].

7. We, [_____ Bank] lastly undertake not to revoke this guarantee during its currency except with the previous consent of the OPTCL in writing.

8. We the _____ Bank further agree that this guarantee shall also be invokable at our place of business at Burla (indicate the name of the branch) in the state of ODISHA.

Notwithstanding any thing contained here in.

1) Our liability under this bank guarantee shall not exceed Rs.----- (Rupees-----).

2) The bank guarantee shall be valid up to dt.-----

3) We are liable to pay the guaranteed amount or any part thereof under this bank guarantee only & only if you serve upon us at -----branch at Chainpala written claim or demand on or before dt.-----.

Dated _____ Day of _____

For _____
[Indicate the name of Bank]

Witness ((Signature, names & address)

1.

2.

