

**North Eastern Electricity Supply Company of Orissa Limited (NESCO)
Western Electricity Supply Company of Orissa Limited (WESCO)
Southern Electricity Supply Company of Orissa Limited (SOUTHCO)
Registered Office,
123, Sector-A, Zone-A, Mancheswar Industrial Estate, Bhubaneswar, Orissa-751010
Tel No. (0674) 2582728, Fax No. (0674) 2586343**

VOLUME- I

**Tender Notification : CSO/06/LT Cable & Dist. Box
(Revised)
2008 - 2009
Date: 16.06.2008**

Section – I

INVITATION FOR BIDS (IFB)

**Tender Notification: CSO/06/LT Cable & Dist Box
(Revised)**

Date: 16.06.2008

Registered Office of NESCO, WESCO & SOUTHCO

- 1.0 The Registered Office of NESCO, WESCO & SOUTHCO (here in after referred as **CSO**) invites Sealed tenders for supply of following items from reputed manufacturers / authorized dealers (in case manufacturers are not quoting directly). The bidder must qualify the technical requirements as specified in clause 5.0 stated below. The sealed envelopes shall be duly superscribed as “**TENDER NOTICE/CSO/06/LT Cable & Distribution Box due for opening on dt. 01.07.08**”.

Group Ref	Sl. No.	Item Description	Unit	Qty
Group - A	1	LT XLPE Un-armoured Cable : 1 C x 35 mm ²	Km.	21.00
	2	LT XLPE Un-armoured Cable : 1 C x 70 mm ²	Km.	208.00
	3	LT XLPE Armoured Cable : 1 C x 95 mm ²	Km.	207.00
	4	LT XLPE Armoured Cable : 1 C x 185 mm ²	Km.	14.000
	5	LT XLPE Armoured Cable : 1 C x 300 mm ²	Km.	46.000
Group - B	1	LT Distribution Box with MCCB suitable for 25 KVA Transformer	No.s	350
	2	LT Distribution Box with MCCB suitable for 250 KVA Transformer (with provision for 3 no.s outgoing circuits)	No.s	1157
	3	LT Distribution Box with MCCB suitable for 250 KVA Transformer (with provision for 2 no.s outgoing circuits)	No.s	470
	4	LT Distribution Box with MCCB suitable for 315 KVA Transformer	No.s	430

- 2.0 The schedule of specifications with detail terms & conditions can be obtained from address given below against demand draft of Rs. 5000/- plus 4% VAT per Group, drawn in favour of NESCO Ltd., payable at Bhubaneswar. The tender papers will be issued on all working days upto 08.06.2008.

The tender documents can also be downloaded from the websites of NESCO, WESCO & SOUTHCO : “nescoorissa.com”, “wescoorissa.com” and “southcoorissa.com”.

In case tender papers are downloaded from the above website, then the bidder has to enclose a demand draft covering the cost of bid documents as stated above in a separate envelope with suitable superscription “Cost of Bid Documents : Tender Notice Ref : CSO/06/LT Cable & Dist Box”. This envelope should accompany the Bid Documents.

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- 3.0 Offers will be received upto 1.00 PM. on dt. 10.07.08 & will be opened at the address given below at 3.00 PM. on same day in presence of the authorized representatives of the bidders. The schedule of specifications with detail terms & conditions are enclosed. It is the sole responsibility of the bidder to ensure that the bid documents reach this office on or before the cut off due date of tender opening.
- 4.0 CSO reserves the right to accept / reject any or all Tenders without assigning any reason thereof and alter the quantity of materials mentioned in the Tender documents at the time of placing purchase orders. Tender will be summarily rejected if:
- (i). Bid security @ 1% (one percent) of the Tender value is not deposited in shape of Bank Draft in favor of NESCO Ltd., payable at Bhubaneswar or Bank Guarantee executed in favour of NESCO Ltd., Plot 123, Sector – A, Zone – A, Mancheswar Industrial Estate, Bhubaneswar – 751 010. Bid security against previous Tenders, if any, will not be adjusted towards Bid security against this Tender.
 - (ii). The offer does not contain “FOR, Balasore/ Burla/ Berhampur price indicating break-up towards all taxes & duties”.
 - (iii). Complete Technical details are not enclosed.
 - (iv). Sample is not submitted along with the offer.
 - (v). Tender is received after due time due to any reason.

5.0 **Qualification Criteria :-**

The prospective bidder must qualify all of the following requirements to be eligible to participate in the bidding.

The revised qualification criteria is as under :

- a) Bidder must have successfully carried out Type Test from any NABL Accredited Laboratory; In case of LT Cables (Group – A) availability of NABL type test report of similar type but of higher sizes, shall also be considered; and
- b) In case of LT Cables (Group – A), the manufacturers of the cables should have ISI certification for manufacturing of LT XLPE Cable upto and including 1100 Volt; and.

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- c) Bidder may quote for any of the items under one or more Groups. However 100% tender quantity must be quoted for each such item; and
- d) Bidder should have supplied at least 50% of the offered quantity and of similar make, in the past 5 financial years. Supplies of higher size but of similar make shall be considered.

6.0 Project Completion Schedules:

Description	Date
Issue of Tender Document	16.06.2008
Receipt of Queries from Bidders by fax /email	03.07.2008
Replies to the Queries by fax/email	03.07.2008
Submission of Bids	10.07.2008 upto 1.00 PM
Opening of Bids	10.07.2008 at 3.00 PM
Receipt of Clarification from Bidders (if any)	14.07.2008
Issue of LOI / Work Order	20.07.2008
Works completion	Phased manner & to be completed within 4 months from the date of issue of LOI.

- 7.0 All correspondences with regard to the above shall be made to the following address:

Dy. General Manager (Tech) / Sr. Manager (MAC)

Central Services Office

(NESCO, WESCO & SOUTHCO)

Plot No. 123, Sector – A, Zone – A

Mancheswar Industrial Estate

Bhubaneswar – 751 010

FAX : (0674) 2586343

Email : biswakeshdash@rediffmail.com / suntasarangi@sify.com

Mobile : 93382 14150 / 93376 46022

SECTION – II

**INSTRUCTION TO BIDDERS (ITB)
2008-2009**

**Tender Notification : CSO/06/LT Cable & Dist Box
(Revised)**

Date: 16.06.2008

Registered Office of NESCO, WESCO & SOUTHCO

A. GENERAL

1.0 NESCO / WESCO / SOUTHCO, hereinafter referred to as the "Purchaser" is desirous of implementing the various Systems Improvement / Repair & Maintenance works at their respective licensed area in the state of Orissa. The Purchaser has now floated this tender for procurement of Distribution Transformers.

2.0 SCOPE OF WORK

The scope shall include Design, Manufacture, Shop Testing at works conforming to the Technical Specifications enclosed along with Packing, Forwarding, Freight and Insurance and Unloading and proper stacking at Purchaser's stores.

3.0 DISCLAIMER

3.01 This Document includes statements, which reflect various assumptions, which may or may not be correct. Each Bidder/Bidding Consortium should conduct its own estimation and analysis and should check the accuracy, reliability and completeness of the information in this Document and obtain independent advice from appropriate sources in their own interest.

3.02 Neither Purchaser nor its employees will have any liability whatsoever to any Bidder or any other person under the law or contract, the principles of restitution or unjust enrichment or otherwise for any loss, expense or damage whatsoever which may arise from or be incurred or suffered in connection with anything contained in this Document, any matter deemed to form part of this Document, provision of Services and any other information supplied by or on behalf of Purchaser or its employees, or otherwise arising in any way from the selection process for the Supply.

3.03 Though adequate care has been taken while issuing the Bid document, the Bidder should satisfy itself that documents are complete in all respects. Intimation of any discrepancy shall be given to this office immediately.

3.04 This Document and the information contained herein are Strictly Confidential and are for the use of only the person(s) to whom it is issued. It may not be copied or distributed by the recipient to third parties (other than in confidence to the recipient's professional advisors).

4.0 COST OF BIDDING

The Bidder shall bear all costs associated with the preparation and submission of its Bid and Purchaser will in no case be responsible or liable for those costs.

B. BIDDING DOCUMENTS

5.0 BIDDING DOCUMENTS

5.01 The Scope of Work, Bidding Procedures and Contract Terms are described in the Bidding Documents. In addition to the covering letter accompanying Bidding Documents, the Bidding Documents include:

Volume - I

- | | | |
|-----|--------------------------------------|-----------------|
| (a) | Invitation for Bids (IFB) | - Section - I |
| (b) | Instructions to Bidders (ITB) | - Section - II |
| (c) | General Conditions of Contract (GCC) | - Section - III |
| (d) | Technical Specifications (TS) | - Section - IV |

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Volume - II

- (a) Bid Form - Annexure – I
- (b) BG Formats - Annexure – II
- (c) Price Schedule - Annexure – III

5.02 The Bidder is expected to examine the Bidding Documents, including all Instructions, Forms, Terms and Specifications. Failure to furnish all information required by the Bidding Documents or submission of a Bid not substantially responsive to the Bidding Documents in every respect will may result in the rejection of the Bid.

6.0 AMENDMENT OF BIDDING DOCUMENTS

6.01 At any time prior to the deadline for submission of Bids, the Purchaser may, for any reasons, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the Bidding Documents by Amendment.

6.02 The Amendment shall be part of the Bidding Documents, pursuant to Clause 5.01, and it will be notified in writing by Fax/e-mail to all the Bidders who have received the Bidding Documents and confirmed their participation to Bid, and will be binding on them.

6.03 In order to afford prospective Bidders reasonable time in which to take the Amendment into account in preparing their Bids, the Purchaser may, at its discretion, extend the deadline for the submission of Bids.

C. PREPARATION OF BIDS

7.0 LANGUAGE OF BID

The Bid prepared by the Bidder, and all correspondence and documents relating to the Bid exchanged by the Bidder and the Purchaser, shall be written in the English Language. Any printed literature furnished by the Bidder may be written in another Language, provided that this literature is accompanied by an English translation, in which case, for purposes of interpretation of the Bid, the English translation shall govern.

8.0 DOCUMENTS COMPRISING THE BID

The Bid prepared and submitted by the Bidder shall comprise the following components:

- (a) Bid Form, Price & other Schedules (STRICTLY AS PER FORMAT) and Technical Data Sheets completed in accordance with Clause 9.0, 10.0, 11.0 and Technical Specification;
- (b) All the Bids must be accompanied with the required bid security as mentioned in the Section-I against each tender.
- (c) Power of Attorney indicating that the person(s) signing the Bid have the authority to sign the Bid and thus that the Bid is binding upon the Bidder during the full period of its validity, in accordance with clause 12.0.

9.0 BID FORM

9.01 The Bidder shall complete an 'Original' and another one 'Copy' of the Bid Form and the appropriate Price & Other Schedules and Technical Data Sheets furnished in the Volume-II of the Bidding Documents.

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9.02 Bid Security

Pursuant to Clause 8.0 (b) above, the bidder shall furnish, as part of its bid, a bid security amounting to 1% of the total bid value (FOR Destination) as already specified in the Section-I. The bid security is required to protect the Purchaser against the risk of Bidder's conduct which would warrant the security's forfeiture.

The bid security shall be denominated in the currency of the bid, and shall be in the following form:

- (a) a bank guarantee issued by any scheduled bank strictly as per the format enclosed and shall be valid for a period of thirty (30) days beyond the validity of the bid.
- (b) Bank Draft in favour of NESCO, payable at Bhubaneswar.

Unsuccessful bidders' bid security will be discharged or returned as promptly as possible but not later than thirty (30) days after the expiration of the period of bid validity.

The successful bidder's bid security will be discharged upon furnishing the performance security.

The bid security may be forfeited :

- (a) if the Bidder:
 - i) withdraws its bid during the period of bid validity specified by the Bidder in the Bid Form; or
- (b) in the case of a successful Bidder, if the Bidder fails:
 - (i) to sign the Contract, or
 - (ii) to furnish the required performance security.

10.0 BID PRICES

10.01 Bidders shall quote for the entire Scope of Supply with a break-up of prices for individual items. The total Bid Price shall also cover all the Supplier's obligations mentioned in or reasonably to be inferred from the Bidding Documents in respect of Design, Supply, Transportation to site, all in accordance with the requirement of Bidding Documents. The Bidder shall complete the appropriate Price Schedules included herein, stating the Unit Price for each item & total Price.

10.02 The prices offered shall be inclusive of all costs as well as Duties, Taxes and Levies paid or payable during execution of the supply work, break up of price constituents, should be there.

10.03 Prices quoted by the Bidder shall be "Firm" and not subject to any price adjustment during the performance of the Contract. A Bid submitted with an adjustable price quotation will be treated as non-responsive and rejected.

11.0 BID CURRENCIES

Prices shall be quoted in Indian Rupees Only.

12.0 PERIOD OF VALIDITY OF BIDS

12.01 Bids shall remain valid for 120 days from the date of opening of the Bid.

12.02 Notwithstanding Clause 12.01 above, the Purchaser may solicit the Bidder's consent to an extension of the Period of Bid Validity. The request and the responses thereto shall be made in writing by Fax/e-mail.

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13.0 ALTERNATIVE BIDS

Bidders shall submit Bids, which comply with the Bidding Documents. Alternative Bids will not be considered. The attention of Bidders is drawn to the provisions of Clause 22.03 & 22.04 regarding the rejection of Bids, which are not substantially responsive to the requirements of the Bidding Documents.

14.0 FORMAT AND SIGNING OF BID

14.01 The original Bid Form and accompanying documents (as specified in Clause 9.0), clearly marked "Original Bid", plus one copy must be received by the Purchaser at the date, time and place specified pursuant to Clauses 15.0 and 16.0. In the event of any discrepancy between the original and the copies, the original shall govern.

14.02 The original and copy of the Bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to sign on behalf of the Bidder. Such authorization shall be indicated by written Power-of-Attorney accompanying the Bid.

14.03 The Bid shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by the Bidder, in which case such corrections shall be initialed by the person or persons signing the Bid.

D. SUBMISSION OF BIDS

15.0 SEALING AND MARKING OF BIDS

15.01 Bid submission: One original & one Copy (hard copies) of all the Bid Documents shall be sealed and submitted to the Purchaser before the closing time for submission of the bid.

15.02 The Technical Documents and the Bid Security shall be enclosed in an sealed envelope and the said envelope shall be superscribed with "Technical & Bid Security". The price bid shall be inside another sealed envelope with superscription "Price Bid". Both these envelopes shall be sealed inside another big envelope. All the envelopes should bear the Name and Address of the Bidder and marking for the Original and Copy. The envelopes should be super-scribed with "Tender Notice No. & Due date of opening".

15.03 The Bidder has the option of sending the Bids in person. Bids submitted by Telex/Telegram/Fax will not be accepted. No request from any Bidder to the Purchaser to collect the proposals from Airlines/Cargo Agents etc shall be entertained by the Purchaser.

15.04 The Bidder, along with the bid documents has to submit Samples along with detailed Drawings (for Distribution Boxes only). The sample should clearly indicate (i) Name of the bidder (ii) Tender No., (iii) Group & Item Srl. No. etc. The samples shall not be returned back to the bidder. Samples submitted earlier against other tender notices shall not exempt the bidder to submit fresh samples under this tender.

16.0 DEADLINE FOR SUBMISSION OF BIDS

16.01 The original Bid, together with the required copies, must be received by the Purchaser at the address specified no later than 1.00 PM. on 01.07.2008.

16.02 The Purchaser may, at its discretion, extend the deadline for the submission of Bids by amending the Bidding Documents in accordance with Clause 9.0, in which case all rights and obligations of the

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Purchaser and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

17.0 ONE BID PER BIDDER

Each Bidder shall submit only one Bid either by itself, or as a partner in a Joint Venture. A Bidder who submits or participates in more than one Bid will cause all those Bids to be rejected.

18.0 LATE BIDS

Any Bid received by the Purchaser after the deadline for submission of Bids prescribed by the Purchaser, pursuant to Clause 16.0, will be declared "Late" and rejected and returned unopened to the Bidder.

19.0 MODIFICATIONS AND WITHDRAWAL OF BIDS

19.01 The Bidder is not allowed to modify or withdraw its Bid after the Bid's submission.

E EVALUATION OF BID

20.0 PROCESS TO BE CONFIDENTIAL

Information relating to the examination, clarification, evaluation and comparison of Bids and recommendations for the award of a contract shall not be disclosed to Bidders or any other persons not officially concerned with such process. Any effort by a Bidder to influence the Purchaser's processing of Bids or award decisions may result in the rejection of the Bidder's Bid.

21.0 CLARIFICATION OF BIDS

To assist in the examination, evaluation and comparison of Bids, the Purchaser may, at its discretion, ask the Bidder for a clarification of its Bid. All responses to requests for clarification shall be in writing and no change in the price or substance of the Bid shall be sought, offered or permitted.

22.0 PRELIMINARY EXAMINATION OF BIDS / RESPONSIVENESS

22.01 Purchaser will examine the Bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the Bids are generally in order.

22.02 Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price per item that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price per item will be corrected. If there is a discrepancy between the Total Amount and the sum of the total price per item, the sum of the total price per item shall prevail and the Total Amount will be corrected.

22.03 Prior to the detailed evaluation, Purchaser will determine the substantial responsiveness of each Bid to the Bidding Documents including production capability and acceptable quality of the Goods offered. A substantially responsive Bid is one, which conforms to all the terms and conditions of the Bidding Documents without material deviation.

22.04 A Bid determined as not substantially responsive will be rejected by the Purchaser and / or the Purchaser and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

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23.0 EVALUATION AND COMPARISON OF BIDS

- 23.01 The evaluation of Bids shall be done based on the delivered cost competitiveness basis.
- 23.02 The evaluation of the Bids shall be a stage-wise procedure. The following stages are identified for evaluation purposes:

In the first stage, the Bids would be subjected to a responsiveness check. The Technical Proposals and the Conditional ties of the Bidders would be evaluated.

Subsequently, the Financial Proposals along with Supplementary Financial Proposals, if any, of Bidders with Techno-commercially Acceptable Bids shall be considered for final evaluation.

- 23.03 The Purchaser's evaluation of a Bid will take into account, in addition to the Bid price, the following factors, in the manner and to the extent indicated in this Clause:

- (a) Supply Schedule
- (b) Deviations from Bidding Documents

Bidders shall base their Bid price on the terms and conditions specified in the Bidding Documents.

The cost of all quantifiable deviations and omissions from the specification, terms and conditions specified in Bidding Documents shall be evaluated. The Purchaser will make its own assessment of the cost of any deviation for the purpose of ensuring fair comparison of Bids.

- 23.04 Any adjustments in price, which result from the above procedures, shall be added for the purposes of comparative evaluation only to arrive at an "Evaluated Bid Price". Bid Prices quoted by Bidders shall remain unaltered.

F. AWARD OF CONTRACT

24.0 CONTACTING THE PURCHASER

- 24.01 From the time of Bid opening to the time of contract award, if any Bidder wishes to contact the Purchaser on any matter related to the Bid, it should do so in writing.
- 24.02 Any effort by a Bidder to influence the Purchaser and / or in the Purchaser's decisions in respect of Bid evaluation, Bid comparison or Contract Award, will result in the rejection of the Bidder's Bid.

25.0 THE PURCHASER'S RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS

The Purchaser reserves the right to accept or reject any Bid and to annul the Bidding process and reject all Bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Purchaser's action.

26.0 AWARD OF CONTRACT

The Purchaser will award the Contract to the successful Bidder whose Bid has been determined to be the lowest - evaluated responsive Bid, provided further that the Bidder has been determined to be qualified to satisfactorily perform the Contract. Purchaser reserves the right to award order other bidders in the tender, provided it is required for progress of project & provided he agrees to come to the lowest rate.

27.0 THE PURCHASER'S RIGHT TO VARY QUANTITIES

The Purchaser reserves the right to vary the quantity i.e. increase or decrease the numbers/quantities without any change in terms and conditions during the execution of the Order.

28.0 LETTER OF INTENT/ NOTIFICATION OF AWARD

The letter of intent / Notification of Award shall be issued to the successful Bidder whose bids have been considered responsive, techno-commercially acceptable and evaluated to be the Lowest (L1). The successful Bidder shall be required to furnish a letter of acceptance within 7 days of issue of the letter of intent /Notification of Award by Purchaser.

29.0 PERFORMANCE SECURITY

Within 15 days of the receipt of Notification of Award/ Letter of Intent from the Purchaser, the successful Bidder shall furnish the Performance Security in the form of Bank Guarantee for an amount of 10% (Ten percent) of the Contract Price in accordance with the General Conditions of Contract in the Performance Security Form provided in Vol.-II, Annexure - II of the Bidding Documents. Upon submission of the performance security, the bid security shall be released.

30.0 CORRUPT OR FRAUDULENT PRACTICES

30.01 The Purchaser requires that the Bidders observe the highest standard of ethics during the procurement and execution of the Project. In pursuance of this policy, the Purchaser:

- (a) Defines, for the purposes of this provision, the terms set forth below as follows:
 - (i) "Corrupt practice" means behavior on the part of officials in the public or private sectors by which they improperly and unlawfully enrich themselves and/or those close to them, or induce others to do so, by misusing the position in which they are placed, and it includes the offering, giving, receiving, or soliciting of anything of value to influence the action of any such official in the procurement process or in contract execution; and
 - (ii) "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Purchaser, and includes collusive practice among Bidders (prior to or after Bid submission) designed to establish Bid prices at artificial non-competitive levels and to deprive the Purchaser of the benefits of free and open competition.
- (b) Will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;
- (c) Will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, an contract.

30.02 Furthermore, Bidders shall be aware of the provision stated in the General Conditions of Contract.

SECTION - III

**(GENERAL CONDITION OF CONTRACT)
2008-2009**

**Tender Notification : CSO/06/LT Cable & Dist Box
(Revised)**

Date: 16.06.2008

Registered Office of NESCO, WESCO & SOUTHCO

GENERAL CONDITION OF CONTRACT (GCC)

1.0 General Instructions

- 1.01 All the Bids shall be prepared and submitted in accordance with these instructions.
- 1.02 Bidder shall bear all costs associated with the preparation and delivery of its Bid, and the Purchaser will in no case shall be responsible or liable for these costs.
- 1.03 The Bid should be submitted by the Bidder in whose name the bid document has been issued and under no circumstances it shall be transferred/sold to any other party.
- 1.04 The Purchaser reserves the right to request for any additional information and also reserves the right to reject the proposal of any Bidder, if in the opinion of the Purchaser, the data in support of Tender requirement is incomplete.
- 1.05 The Bidder is expected to examine all instructions, forms, terms & conditions and specifications in the Bid Documents. Failure to furnish all information required in the Bid Documents or submission of a Bid not substantially responsive to the Bid Documents in every respect may result in rejection of the Bid. However, the Purchaser's decision in regard to the responsiveness and rejection of bids shall be final and binding without any obligation, financial or otherwise, on the Purchaser.

2.0 Definition of Terms

- 2.01 "Purchaser" shall mean NESCO / WESCO / SOUTHCO.
- 2.02 "Bidder" shall mean the firm who quotes against this bid document issued by the Purchaser. "Contractor" or "Seller" shall mean the successful Bidder and/or Bidders whose bid has been accepted by the Purchaser and on whom the "Letter of intent" is placed by the Purchaser and shall include his heirs, legal representatives, successors and permitted assigns wherever the context so admits.
- 2.03 "Site" shall mean the Electricity Distribution Area of the Company.
- 2.04 "Specification" shall mean collectively all the terms and stipulations contained in those portions of this bid document known as Instruction to Bidder, Bid form and other forms as per Volume - III, General Conditions of Contract, Specifications and the Amendments, Revisions, Deletions or Additions, as may be made by the Purchaser from time to time.
- 2.05 "Letter of Intent" shall mean the official notice issued by the Purchaser notifying the Contractor that his proposal has been accepted and it shall include amendments thereto, if any, issued by the Purchaser. The "Letter of Intent" issued by the Purchaser shall be binding on the "Contractor". The date of Letter of Intent shall be taken as the effective date of the commencement of contract.
- 2.06 "Purchase Order" shall mean the Purchase Order and amendments thereof and the drawings, specifications and other documents / papers referred to therein which shall constitute the "Contract".
- 2.07 "Month" shall mean the calendar month and "Day" shall mean the calendar day.
- 2.08 "Codes and Standards" shall mean all the applicable codes and standards as indicated in the Technical Specification.
- 2.09 "Offer Sheet" shall mean Bidder's firm offer submitted to Purchaser in accordance with the specification.
- 2.10 "Contract" shall mean the "Letter of Award" / Purchase Order issued by the Purchaser.

- 2.11 "Contract Price" shall mean the price referred to in the "Letter of Award" / Purchase Order.
- 2.12 "Contract Period" shall mean the period during which the "Contract" shall be executed as agreed between the Contractor and the Purchaser in the Contract inclusive of extended contract period for reasons beyond the control of the Contractor and/or Purchaser due to force majeure.
- 2.13 "Goods" shall mean all items to be supplied under Purchase Order whether raw materials, processes materials, equipment, fabricated products, drawings or other documents as applicable.
- 2.14 "Store" shall mean the Purchaser store as defined elsewhere in this tender document.

3.0 Contract Documents & Priority

- 3.01 Contract Documents: The Specification, terms and conditions of the contract shall consist solely of these Tender conditions and offer sheet.
- 3.02 Priority: Should there be any discrepancy between any term hereof and any term of the Offer Sheet, the terms of these tender document shall prevail.

4.0 Scope of Work

- 4.01 The "Scope of Work" shall be on the basis of Bidder's responsibility, completely covering the obligations, responsibility and workmanship, provided in this Bid Enquiry whether implicit or explicit.
- 4.02 The Purchaser reserves the right to vary the quantity i.e increase or decrease, which shall be communicated to successful bidder during project execution.
- 4.03 All relevant drawings, data and instruction manuals and other necessary inputs shall be under the scope of contract.

5.0 General Requirements

- 5.01 The contractor shall supply, deliver best quality goods.
- 5.02 The company also reserves the right to add from the scope of work or delete from the scope of work so assigned to the Supplier, if the circumstances so warrant.
- 5.03 The contractor shall be responsible for loading and unloading of all materials with proper material handling equipment.

6.0 Quality Assurance and Inspection

- 6.01 Immediately on award of contract, the bidder shall prepare detailed quality assurance plan / test procedure identifying the various stages of manufacture, quality checks performed at each stage, raw material inspection and the Customer hold points. The document shall also furnish details of method of checking, inspection and acceptance standards / values and get the approval of Purchaser before proceeding with manufacturing. However, Purchaser shall have the right to review the inspection reports, quality checks and results of contractors in house inspection department which are not Customer hold points and the contractor shall comply with the remarks made by purchaser or his representative on such reviews with regards to further testing, rectification or rejection, etc.
- 6.02 Witness and Hold points are critical steps in manufacturing, inspection and testing where the contractor is obliged to notify the Purchaser in advance so that it may be witnessed by the Purchaser. Final inspection is a mandatory hold point. The contractor has to proceed with the work past a hold point only after clearance by purchaser or a witness waiver letter from Purchaser.

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- 6.03 The performance of waiver of QA activity by Purchaser at any stage of manufacturing does not relieve the contractor of any obligation to perform in accordance with and meet all the requirements of the procurement documents and also all the codes & reference documents mentioned in the procurement document nor shall it preclude subsequent rejection by the purchaser.
- 6.04 On completion of manufacturing the items can be dispatched only after issue of shipping release by the Purchaser.
- 6.05 All testing and inspection shall be done without any extra cost.
- 6.06 Purchaser reserves the right to send any material out of the supply to any recognized laboratory for testing. In case the material is found not in order with the technical requirement / specification, the charges of testing along with any other penalty which may be levied is to be borne by the bidder. To avoid any conflict the Seller is advised to send his representative to the stores to see that the material sent for testing is being sealed in the presence of bidder's representative.

7.0 Packing, Packing List & Marking

- 7.01 **Packing:** Seller shall pack or shall cause to be packed all Commodities in such a manner as shall be reasonably suitable for shipment by road or rail to Orissa Distribution Companies without any risk of damage in transit. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage.
- 7.02 **Packing List:** One copy of the packing list shall be enclosed in each package delivered. There shall also be enclosed in one package a master packing list identifying each individual package, which is part of the shipment. On any packaging where it is not feasible to place the packing list inside the container, all pertinent information shall be stenciled on the outside and will thus constitute a packing list.
- 7.03 **Marking:** Seller shall mark each container, box or package for easy identification of his materials as follows:

Commodity Name:
Name of the Supplier:
Net Weight:
Size:

8.0 Price Basis

- 8.01 Bidders shall quote individual price breakup for the quoted items.

The price shall be inclusive of all taxes, Duties and other Levies of whatsoever nature, transportation to site and vice versa and in-transit Insurances.

The above Prices shall also include unloading and proper stacking at/ from Purchaser Stores to site / stores.

10.0 Terms of Payment

- 10.01 The Payment shall be made as under:

- a) 100% Payment with taxes & duties on Prorata basis within 45 days of receipt of goods in the specified stores of the Purchaser in good condition subject to detailed verification thereof and approval of guarantee & test certificate.

- b) For claiming 100% payment the bidder should have submitted a Composite Bank Guarantee equivalent to 10% of the total value of the order as prescribed in Clause-13.0

10.02 All Payments shall be made after certification from Purchaser's Engineer Incharge. All Payments are subject to receipt of correct Documents.

11.0 Price Validity

All bids submitted shall remain valid, firm and subject to unconditional acceptance by Purchaser for 120 days post bid opening date. For awarded Contract, the prices shall remain valid and firm till contract completion.

12.0 Warranty / Guarantee

12.01 The bidder shall guarantee for the equipments/workmanship for a minimum period of 24 months from the date of commissioning or 30 months from the date of last receipt goods at stores, whichever is earlier. The manufacturer shall guarantee to replace or repair to the satisfaction of the purchaser the defective parts at site free of cost within the above period. Should however, the manufacturer fails to do so within a reasonable time, the purchaser reserves the right to effect repair or replacement and recover such charges for repair or replacement from the contractor.

12.02 If during the defect liability period any services performed found to be defective, these shall be promptly rectified by contract its own cost (including the cost of dismantling and reinstallation) on the instruction of Purchaser.

13.0 Composite Performance Bank Guarantee

13.01 Within Fifteen (15) days from the date of the Award notice, Seller shall submit a Performance Bank Guarantee (PBG) in favour of Purchaser equivalent to Ten percent (10%) of the total price of the Contract (the "Performance Bank Guarantees"). The PBG shall be valid for a period of 60 days from the completion of delivery.

13.02 The Performance Bank Guarantee established under Clause 13.01 shall be forfeited without recourse to the seller and payable against the presentation by Purchaser to the bank with a claim that the seller has failed to comply with any term or condition set forth in the Contract.

13.03 The Performance Bank Guarantee established under will be automatically and unconditionally forfeited without recourse if Purchaser in its sole discretion determines that Seller has failed to comply with any Terms or Condition set forth in the contract.

13.04 The Performance Bank Guarantees will be released without interest within thirty (30) days from the last date up to which the Performance Bank Guarantee has to be kept valid (as defined in Clause 13.01).

14.0 Technical information / data.

The company and the contractor, to the extent of their respective rights permitting to do so, shall exchange such technical information and data as is reasonably required by each party to perform its obligations and responsibilities. The company and the contractor agree to keep each other in confidence and to use the same degree of care as it uses with respect to its own proprietary data to prevent its disclosure to third parties of all technical and confidential information. The technical information, drawings, records and other document shall not be copied, transferred, traced or divulged and / or disclosed to third party in full / part not misused in any other form. This technical information, drawing etc. shall be returned to the company with all approved copies and duplicates. In

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the event of any breach of this contract, the contractor shall indemnify the company against any loss, cost of damages or claim by any party in respect of such breach

15.0 Effective Date of Commencement of Contract:

The date of the issue of the Letter of Award shall be treated as the effective date of the commencement of contract.

16.0 Taxes & Duties :

All taxes, duties, levies of whatsoever nature, entry tax, octroi, turnover tax, service tax, income tax, work contract tax etc., levied by State or Central Governments or local bodies shall be to the contractor 's account including any taxes, duties and levies which may be levied fresh by the Governments during currency of the Contract. The contractor shall furnish their Excise/Sales Tax registration number, PAN No. etc. in the bid documents as well as Invoice/Challans etc.

17.0 Time – The Essence of Contract

The time and the date of completion of the "Supply" as stipulated in the Letter Of Intent / Purchase order issued to the Contractor shall be deemed to be the essence of the "Contract". The Supply has to be completed not later than the aforesaid Schedule and date of completion of supply.

18.0 Liquidated Damages (LD)

- 18.01 If supply of items / equipments is delayed beyond the supply schedule as stipulated in purchase order/LOI, then the Contractor shall be liable to pay to the Purchaser as LD for such delay, a sum of 1% of the contract price for every week delay or part thereof. The LD shall be computed on the undelivered value of goods as per the delivery schedule.
- 18.02 The total amount of LD for delay under the contract will be subject to a maximum of ten percent (10%) of the contract price
- 18.03 The Purchaser may, without prejudice to any method of recovery, deduct the amount for such damages from any amount due or which may become due to the Contractor or from the Performance Bank Guarantee or file a claim against the contractor.

19.0 The Laws and Jurisdiction of Contract:

- 19.01 The laws applicable to this Contract shall be the Laws in force in India.
- 19.02 All disputes arising in connection with the present Contract shall be settled amicably by mutual consultation failing which shall be finally settled as per the rules of Arbitration and Conciliation Act, 1996 at the discretion of Purchaser. The jurisdiction of arbitration shall be at Bhubaneswar, Orissa, India

20.0 Events of Default

- 20.01 Events of Default. Each of the following events or occurrences shall constitute an event of default ("Event of Default") under the Contract:
 - (a) Seller fails or refuses to pay any amounts due under the Contract;
 - (b) Seller fails or refuses to deliver Commodities conforming to this Bid document / specifications, or fails to deliver Commodities within the period specified in P.O. or any extension thereof

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- (c) Seller becomes insolvent or unable to pay its debts when due, or commits any act of bankruptcy, such as filing any petition in any bankruptcy, winding-up or reorganization proceeding, or acknowledges in writing its insolvency or inability to pay its debts; or the Seller's creditors file any petition relating to bankruptcy of Seller;
- (d) Seller otherwise fails or refuses to perform or observe any term or condition of the Contract and such failure is not remediable or, if remediable, continues for a period of 30 days after receipt by the Seller of notice of such failure from Purchaser.

21.0 Consequences of Default.

- (a) If an Event of Default shall occur and be continuing, Purchaser may forthwith terminate the Contract by written notice.
- (b) In the event of an Event of Default, Purchaser may, without prejudice to any other right granted to it by law, or the Contract, take any or all of the following actions:
 - (i) present for payment, to the relevant bank the Performance Bank Guarantee;
 - (ii) purchase the same or similar Commodities from any third party; and/or
 - (iii) recover any losses and/or additional expenses Purchaser may incur as a result of Seller's default.

22.0 Force Majeure

- 22.01 The term "Force Majeure" as employed herein include, but are not limited to, acts of God or force of nature, landslide, earthquake, flood, fire, lightning, explosion, major storm (hurricane, typhoon, cyclone etc.) or major storm warning, tidal wave, shipwreck and perils of navigation, act of war (declared or undeclared) or public enemy, strike (excluding employee strikes, lockouts or other industrial disputes or action solely among employee of Contractor or its subcontractors) act or omission of sovereign states or those purporting to represent sovereign states, blockade, embargo, quarantine, public disorder, sabotage, accident or similar events beyond the control of the parties or either of them.

Force Majeure shall not include occurrences as follows:

- (a) Late delivery of materials caused by congestion at Seller's facilities or elsewhere, an oversold condition of the market, inefficiencies, or similar occurrences.
- (b) Late performance by Seller and/or Sub-Seller caused by unavailability of raw materials, supervisors or labour, inefficiencies or similar occurrences.
- (c) Mechanical breakdown of any item of Seller's or its Sub-Seller's equipment, plant or machinery.
- (d) Delays due to ordinary storm or inclement weather or
- (e) Non-conformance by Sub-Seller.

Unless the delay arises out of a Force Majeure occurrence and is beyond both Seller's and Sub-Seller's or Seller's control and an alternate acceptable source of services, equipment or material is unavailable. Additionally, Force Majeure shall not include financial distress of Seller or any Sub-Seller.

- 22.02 In the event of either party being rendered unable by Force Majeure to perform any obligation required to be performed by them under the Contract, the relative obligation of the party affected by

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such Force Majeure shall be suspended for the period during which such cause lasts. Time for performance of the relative obligation suspended by Force Majeure shall then stand extended by the period for which cause lasts.

- 22.03 Upon the occurrence of any Force Majeure event, the party so affected in the discharge of its obligation shall promptly, but no later than seven (7) days give written notice of such event to the other party. The affected party shall make every reasonable effort to remove or remedy the cause of such Force Majeure or mitigate its effect as quickly as possible. If such occurrence results in the suspension of all or part of the Work for a continuous period of more than, the parties shall meet and determine the measures to be taken.
- 22.04 Any delay or failure in performance by either party hereto shall not give rise to any claims for damages or loss of anticipated profits it, and to the extent, such delay or failure is caused by Force Majeure.

23.0 Transfer and Sub-Letting

The Contractor shall not sublet, transfer, assign or otherwise part with the Contract or any part thereof, either directly or indirectly, without prior written permission of the Purchaser.

24.0 Third party insurance

Contractor shall take the Insurance of Equipment during Transit. Any Claim pertaining to this shall be the responsibility of the Contractor.

25.0 Recoveries

When ever under this contract any money is recoverable from and payable by the bidder, the purchaser shall be entitled to recover such sum by appropriating in part or in whole by detecting any sum due to which any time thereafter may become due from the Seller in this or any other contract. Should the sum be not sufficient to cover the full amount recoverable the bidder shall pay to the purchaser on demand the remaining balance.

26.0 Waiver

Failure to enforce any condition herein contained shall not operate as a waiver of the condition itself or any subsequent breach thereof.

27.0 Indemnification

- 27.01 Notwithstanding contrary to anything contained in this Tender, Contractor shall at his costs and risks make good any loss or damage to the property of the Purchaser and/or the other Contractor engaged by the Purchaser and/or the employees of the Purchaser and/or employees of the other Contractor engaged by the Purchaser whatsoever arising out of the negligence of the Contractor while performing the obligations under this contract.
- 27.02 Subject to this Clause 23.0 Purchaser shall, at its sole cost and expense, defend, indemnify and hold harmless Contractor and his assignees /or the employees of the Contractor whatsoever arising out of the negligence or willful act or omission or from the default of the Purchaser in the performance of the Contractor.

SECTION - IV

**(TECHNICAL SPECIFICATIONS & GTP FORMATS)
2008-2009**

**Tender Notification : CSO/06/LT Cable & Dist Box
(Revised)
Date: 16.06.2008**

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Group – A : Sl. No. – 1, 2, 3, 4 & 5 : LT XLPE Single Core Cable

1. SCOPE:

This specification covers the design, manufacturing, testing, supply, delivery and performance requirements of LV XLPE cable as indicated in our Schedule of requirements for use in the 11/0.433 substation of NESCO/WESCO/SOUTHCO.

The materials offered shall have been successfully type tested and the design shall have been in satisfactory operation for a period of not less than one year on the date of bid opening. Compliance shall be demonstrated by submitting with the bid (i) authenticated copies of the type test reports and (ii) performance certificates from the users.

However where the bidder offers similar but not identical material but higher size to that which has been type tested, the difference shall be stated in Test Certificate Schedule. The purchaser shall adjudge whether to accept or reject the offered material and type test data presented.

The scope of supply includes the provision of type tests. Rates for type tests shall be given in the appropriate price schedule of the bidding document and shall be considered for evaluation. The purchaser reserves the right to waive type tests as indicated in the section on Quality Assurance, Inspection and Testing in this specification.

The LT XLPE Cable shall conform in all respects to highest standards of engineering, design, workmanship, this specification and the latest revisions of relevant standards at the time of offer and the Purchaser shall have the power to reject any work or material, which, in his judgment is not in full accordance therewith.

2. STANDARDS:

Except where modified by this specification, the LV Cable shall be designed, manufactured and tested in accordance with the latest editions of the following standards.

<u>IEC/ISO</u>	<u>Indian Standard</u>	<u>Material</u>
IEC: 1089	IS:398/1994	Round wire concentric lay Overhead electrical Stranded Conductors.
	IS:398(Part-4)/1994	All Aluminum Alloy Conductors, Quality Management Systems.
ISO:9000	IS:8130/1984	Conductors for insulated Electric cables.
	IS:10810/1984	Method of Tests for cables.
IEC:502	IS:7098/1988	XLPE Insulated PVC. Sheathed power cables.

The Bidder may propose alternative standards, provided it is demonstrated that they give a degree of quality and performance equivalent to or better than the

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referenced standards. The purchaser shall adjudge whether to accept or reject any standards.

In case of conflict the order of the precedence shall be (1) IEC or ISO standards, (2) Indian Standards, (3) Other alternative standards. This list is not to be considered exhaustive and reference to a particular standard or recommendation in this specification does not relieve the Manufacturer or the necessity of providing the goods complying with other relevant standards or recommendation.

3.0 SERVICE CONDITIONS:

The service conditions shall be as follows:

- Maximum altitude above sea level 500m
- Maximum ambient air temperature 50⁰C
- Maximum daily average ambient air temperature 35⁰C
- Maximum ambient air temperature 5⁰C
- Maximum temperature attainable by an object exposed to sun 60⁰C
- Maximum yearly weighted average ambient temperature 32⁰C
- Maximum relative humidity 100%
- Average number of thunderstorm days per annum 70
- Average number of rainy days per annum 120
- Average annual rainfall 150cm
- Wind pressure as per IS:5613(Part-I/Sec.I) 1985

Wind Zones IS:5613 Part-I/Sec-I	Light	Medium	Heavy
Terrain Category	100 Kg/m ²	150 Kg/m ²	200 Kg/m ²

Environmentally, the region where the work will take place includes coastal areas, subject to high relative humidity, which can give rise to condensation. Onshore winds will frequently be salt laden. On occasions, the combination of salt and condensation may create pollution conditions for outdoor insulators.

Therefore, outdoor material shall be designed and protected for use in exposed, heavily polluted salty corrosive and humid coastal atmosphere.

4. SYSTEM CONDITIONS:

The materials shall be suitable for installation in supply systems of the following characteristics.

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▪ Frequency	50Hz
▪ Nominal System Voltage	400/230V
▪ Maximum System Voltage LV System	440/250 V
▪ Minimum LV Voltage	370 V
▪ Power frequency one minute withstand (set & dry)	2KV
▪ Neutral Earthing arrangement LV System	Solidly earthed

5.0 GENERAL/ TECHNICAL

The LT Cable shall be of heavy duty, stranded circular Aluminum Conductor, Cross linked Polyethylene (XLPE) insulated provided with extruded PVC outer sheathed & galvanized steel stripped armoured/unarmoured.

6.0 CONDUCTORS:

The conductor shall be of round stranded aluminum of compacted circular cross-section as stipulated in Table 2 under clause 5 of IS 8130. The aluminum shall comply with IS 8130.

7.0 ARMOURING :

Cable size 1C x 35 mm² and 1C x 70 mm² shall be unarmoured and the balance sizes shall be with armoured.

Armouring shall be galvanized steel stripped. The method, type, dimensions, joints, conductance etc. of armor shall confirm to IS 7098 part II.

8.0 OUTER SHEATH :

The Outer Sheaths shall be applied over the armouring. Minimum thickness of PVC outer sheath shall confirm to the requirement of IS 7098/ 1988.

9.0 INSULATION MARKING / EMBOSSING :

Each individual cable comprising a bundle shall have the markings on insulation at 1 mtr intervals listed below :-

- Purchaser's Name : NESCO / WESCO / SOUTHCO (as the case may be)
- Manufacturer's trademark :
- Year of manufacture :
- Designation of Cable Type :
- Size of Cable :

The height of printed lettering shall be not less than 20% of the over all diameter of the conductor.

10.0 CABLE DRUM LENGTH:

The cable shall be supplied in 250mtr Drum Lengths.

11.0 TESTS:

11.1 Type Tests

The bidder should submit copies of the type test reports of similar size or higher size of cable from any NABL accredited laboratory.

11.2 Routine Tests

The following measurement or tests shall be carried out on all drums and coils of Bunched cable:

- Conductor resistance
- Voltage test.

The conductor to be tested for conductor resistance shall be stored for at least 12 hours in a room at particular constant temperature. If it can not be established that the conductors have reached the room temperature, the test should be postponed for a period of further 12 hours. Alternatively, the test can be carried out on short sample after remaining one hour in a temperature controlled water bath. The test shall be carried out and the conversion factors used to convert the resistance value to a base of 200°C and one Km. The DC resistance of each conductor shall not exceed the appropriate maximum values specified in IEC:228/IS:6474.

The voltage test shall be conducted by applying to each core 3.5KV AC (2.5 U_0 plus 2 KV) or 8.4 KV DC for 5 minutes with the specimen lying in a water bath at ambient temperature. The conductor shall pass the test if no electrical breakdown occurs.

11.3 Acceptance Tests

The following sample check, measurements and test shall be carried out Measurement of insulation wall thickness;

- Measurement of diameter of each strand, overall outside dia & Cross Sectional Area of the conducting Part in compacted condition.
- Measurement of diameter & cross sectional Area of each strand after entwining.
- Thermal expansion test;
- Check of physical characteristics
- Tensile strength of individual wires of conductor.
- Wrapping test
- Conductor resistance test
- Hot set test for insulation
- Tensile strength and elongation at break test for insulation and seath.
- Insulation resistance (volume resistivity) test.

This test should be carried out on one length form each production batch of the same sample.

The thickness of the insulation wall shall be measured on a piece removed from each end of the sample length. If either means or minimum values are not met, two further samples shall be removed at 0.5m form the end corresponding to the failed

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specimen. If these samples do not satisfy the mean and minimum thickness requirements, the test shall be deemed to have been failed.

The longitudinal projections used for phase identifications shall be ignored.
The thermal expansion test need only be carried out on one core.

In relation to the tensile test, the tensile strength of the aluminum wires before stranding and that of the finished conductor shall comply with IEC:1089.

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Group – A : SI. No. – 1, 2, 3, 4 & 5 : LT XLPE Single Core Cable

Guaranteed Technical Particulars

To be Specified by the Bidder

Sr. No.	Description	1C x 35 mm² (Unarmoured)	1C x 70 mm² (Unarmoured)	1Cx95 mm² (Armoured)	1Cx185 mm² (Armoured)	1Cx300 mm² (Armoured)
1	System voltage.					
2	Make of cable.					
3	Type of cable					
4	IS or other specification to which the cable is manufactured					
5	Conductor material and its grade					
6	i) Number of wires in each conductor in nos.					
	ii) Nominal dia of wire dia each conductor in No. X mm					
7	No. cores and nominal cross sectional area of each conductor in No. X sq. mm					
8	Shape of conductors.					
9	Core identification					
10	Material used for insulation					
11	Total thickness of insulation used over each conductor in mm.					
12	Specific insulation resistance of dielectric ohm-Cm.					
13	Maximum thermal resistivity of dielectric in electric measure (i.e. difference in C between opposite faces of a cm. cube of the dielectric to transfer 1 Watt of heat).					
14	Type of extrusion / curing process					
15	Minimum thickness of Inner Sheath					
16	Method of application of Outer Sheath					
17	Minimum thickness of Outer Sheath in mm.					

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18	Material used for Outer Sheath					
19	Type and size of armour					
20	Total cross sectional area of Armouring in sq. mm.					
21	Calculated diameter over laying up cores (Calculated as per fictitious method to IS 10462 Part-I) in mm.					
22	Calculated diameter of cable over armouring (as per fictitious method to IS 10462 Part-I in mm.					
23	Approximate overall diameter of cable in mm.					
24	Approximate total weight of aluminium conductor in 1000 mtrs. Length of finished cable in kgs					
25	Max. thermal resistivity of outer sheath in electrical measure (i.e. difference in C between opposite face of cm. Cube of the dielectric to cause transfer of 1 watt of heat)					
26	Total length of cable for each drum in metres.					
27	Total weight of each drum length of cable in Kg.					
28	Total weight of each drum length of cable with drum					
29	Size of each drum					
30	No. of years the design of the cable offered is in service					
31	Continuous safe current carrying capacity for following conditions for a single cable					
	a) Ground temperature					
	b) Thermal resistivity of soil 120° C cm/w					

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	c) Depth of laying 1070 mm.					
32	Continuous current rating in air at 40° C					
33	Maximum permissible temperature rise of the conductor for continuous capacity					
34	Current density under conditions stipulated in 34 above					
	a) Duct					
	b) Air					
	c) Ground					
35	Insulation resistance – Meg. Ohms. Per 1000 Metres of finished cable at 20° C.					
36	Conductor resistance-ohms per 1000 Metres of finished cable at 20° C.					
37	Conductor reactance – ohms per 1000 Metres of finished cable at 20°C					
38	Specific inductive capacity Micro –					
39	Impulse level					
40	Positive sequence impedance of cable per 1000 metres in ohms.					
41	Negative sequence impedance of cable per 1000 metres in ohms					
42	Zero sequence impedance of cable per 1000 metres in ohms					
43	Maximum allowable assymetrical fault current to earth for 1 sec					
44	Maximum allowable symmetrical short circuit current for a duration of one second.					

Group – B : Sl. No. – 1, 2, 3 & 4 : LT Distribution Box

1. **SCOPE**

1.1 This specification covers design, manufacture, testing at manufacturer works before dispatch and supply of L.T. Distribution Cabinet suitable for outdoor installation in Pole mounted /Plinth Mounted distribution sub-sections of following capacity.

(i) L.T. Distribution Cabinet for 25 KVA, (ii) 250 KVA with two Out going, (iii) 250 KVA with three Out going, (iv) 315 KVA (two box with 250 A MCCB each) all suitable for 11/0.433 KV Transformer.

1.2 The Technical Specification contained herein are for the guidance of the bidders, Any deviation from the Purchasers specification will be considered on their relative merits from the consideration of performance, efficiency, reliability and over all economy consists with the requirements stipulated herein.

2. **COMPLETENESS OF CONTRACT:**

All fittings or accessories no specifically mentioned herein but necessary or usual for similar equipment and their efficient working shall be provided by the contractor without extra charges.

3. **ATMOSPHERIC CONDITIONS:**

a)	Maximum temperature of air in shade	45 ⁰ C
b)	Minimum temperature of air in shade	0 ⁰ C
c)	Maximum temperature of air in sun	50 ⁰ C
d)	Maximum humidity	100%
e)	Average number of thunder storm days per annum	70days
f)	Average number of dust storm days per annum	20 days
g)	Maximum rainfall per annum	2000mm
h)	Average rainfall per annum	1500mm
i)	Maximum ambient temperature daily average	45 ⁰ C
j)	Wind pressure	200Kg/M ²
k)	Altitude	Less than 1000m

4. **DESCRIPTION OF MATERIALS**

The L.T. Distribution cabinets are meant for installation in the D.P. Structure plinth Mounted/Pole Mounted Distribution 11/433 KV sub station of the ratings indicated above. These Distribution Cabinets are to be outdoor type and to be fabricated out of 2 mm CR sheet steel duly acid treated and finished with one coat anticorrosive primer and two coats of gray **epoxy paint of reputed make**. The body of the boxes shall have sufficient reinforcement with suitable size of channels keeping a provision for fixing these boxes either on DP structure or plinths.

The Box shall have double door with locking arrangement and a door handle conforming to IS 8623/1977 .The roof of the box shall be slightly slanting both sides as per drawing with an over hang of 50mm to the front and back side. For maintenance point of view doors may be provided front side as per the requirement. The nuts, bolts, washers used in the box shall be galvanized to avoid rusting. The door hinges shall not be visible from outside. The box shall have a solid earthing point and arrangement for sufficient ventilation.

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The boxes should confirm to IP 54 degree of protection. The bidders shall have to enclose type test certificate for degree of protection (P-54) after their product duly tested at CPRI failing which their bid is liable for rejection.

The box shall have provision of bus bars of (Electrolytic Cooper for 250 & above and Aluminum for 25 KVA Transformer boxes) mounted on epoxy resin cast bus insulators fixed on suitable fixing arrangement. The bus bars shall be conveniently placed so as to provide adequate clearance from the body of the box conforming to I.E. Rules applicable for L.T. supply. There should be heat shrinkable bus bar insulation tubing on the bus bars.

The arrangement and dimensions shall be as per the drawing enclosed.

The box shall consist of one incoming MCCB and 2 sets / 3 sets of Kit-Kat fuse unit rating detailed later for out going feeders.

Suitable cable glands of heavy duty, double compression type shall be provided at the bottom of the box. One for incoming cable and two/three for outgoing cables, Detachable plates shall be provided for fixing of cable glands

Sl. No.	Dimension	25 KVA Dist Box	250 KVA Dist Box with three O/G	250 KVA Dist Box with two O/G	315 KVA (two nos Boxes)
1	Height of Box	700 mm	1500 mm	1000 mm	1000 mm
2	Length of Box	600 mm	1200 mm	1000 mm	1000 mm
3	Width of Box	400 mm	500 mm	500 mm	500 mm
4	Ventilator length	250 mm	350 mm	250 mm	250 mm
5	Ventilator width	170 mm	250 mm	170 mm	170 mm
6	MCCB	40 A	400 A	400 A	250 A
7	MCCB terminal suitable for	35 mm ² cable (1 run)	300 mm ² cable (1 run)	300 mm ² cable (1 run)	185 mm ² cable (2 runs)
8	Kit Kat	63 A (6 nos)	300 A (9 nos)	300 A (6 nos)	200 A (6 nos)
9	Kit Kat terminal suitable for	1CX35 mm ² cable (2 runs)	1c x 95 mm ² cable (3 runs)	1c x 95 mm ² cable (2 runs)	95 mm ² cable (2 runs)
10	Bus Bar	25x5 mm	50x6 mm	50x6 mm	50x6 mm
11	Bus Bar materials	Aluminum	Electrolytic Copper	Electrolytic Copper	Electrolytic Copper

A neutral Busbar similar to phase Busbar is to be provided.

KIT KAT FUSE UNIT : Shall be of reputed make as per IS-2086 (Make- Anchor/Havells/ Ripcon)

The kit kats should have 500 V rating. All contact parts are plated and made of copper and brass with A class porcelain with extended terminal fitted with slots hex bolts with nuts.

The outgoing terminal of the cables is to be connected to the extended terminal of the kit Kat by bimetallic lugs, duly crimped with Die less crimping tools. **Bimetallic lugs of suitable size are to be provided along with box.**

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MCCB OF REPUTED MAKE : (Make must be specified in the bid) The MCCB should conform to the following Technical Specification :

- i) Standard IS 13947 (Part-2) /1993 & IEC Pub -947 -2 (1989)
- ii) Rated voltage 415 vol. Ac
- iii) No. of poles 3
- iv) Utilisation category A
- v) Rated current 400A & 500 respectively (with over current Setting 80% to 100%)
- vi) Rated service short circuit breaking capacity: The percentage of rated service short circuit breaking capacity (I.Cs) to rated ultimate short circuit breaking capacity (icu) shall be mentioned as per the Table- 1, page 13 of IS 13947 (Part-2) /1989.
ICs = ICu = 25 KA for 25 KVA Box
ICs = ICu = 35 KA for above 25 KVA Box
- vii) Type of protection:- Overload protection is a must with static /electro magnetic /thermo magnetic trip release. & Short circuit.
- viii) There should be a metallic /heat resistant insulating barrier between the MCCB side & that of kit Kat fuses so that the heat generated in Kit Kat fuses carrying current and during fuse blow should not pass to the MCCB.

5. GENERAL

- a) The L.T. distribution Boxes should be of the dimensions as per the detail given above. The bidders can quote with their own design suitably accommodating the components in conforming to the approved clearances and technical requirement as indicated in this bid. The dimensions are only illustrative. Tolerances of dimensions are 10% over & above the dimensions specified. The bidder may specify their own dimensions within + 10% limit and quote accordingly.
- b) The distribution boxes shall be wired with copper/aluminum flat.
- c) Terminal connectors for the earth connections to be provided in the box.
- d) The distribution cabinet should be preferably of IP-54 protective category, with provision for lighting inside the cabinet. NESCO/WESCO/SOUTHCO & Sl. No. Punching Marks should be given on any one of the side walls of each box as an identification of NESCO property, besides furnishing a non-detachable name plate which should exhibit the details of L.T. Distribution Cabinet.
- e) The bidders are required to furnish the Guaranteed Technical Particulars in the format given.

6. **TESTS:**

The M.C.C.B. to be mounted with Distribution Boxes shall have been fully type tested as per the relevant standard in any NABL approved Testing Laboratory. Copies of type test reports must be enclosed with the tender failing, which the bid is liable for rejection. Purchaser reserves the right to demand repetition of the tests without any extra cost.

7. **INSPECTION: -**

The inspection may be carried out by the Purchaser at any stage of manufacture. The successful bidder shall grant free access to the Purchaser's representative at a reasonable time when the work is in progress. Inspection and acceptance of any equipment under the specification by the Purchaser shall not relieve the supplier of his obligation of furnishing equipment in accordance with the specification and shall not prevent subsequent rejection if the equipment is found to be defective.

The supplier shall keep the Purchaser informed in advance about the manufacturing programme so that arrangement can be made for inspection.

The purchaser reserves the right to insist for witnessing the acceptance/routine testing of the bought out items.

8. **ACCEPTANCE AND ROUTINE TESTS:-**

All acceptance and routine tests as stipulated in the relevant standards shall be carried out by the supplier in presence of owner's representative.

Immediately after finalization of the programme of type/acceptance/routine testing, the supplier shall give fifteen days advance intimation to the Purchaser to enable him to depute his representative for witnessing the tests.

9. **DOCUMENTATION: -**

The Bidder shall furnish following drawings along with the offer.

- (a) General outline and assembly drawing of the L.T. Distribution Box.
- (b) Cross Sectional view.
- (c) Arrangement of terminals & details of connection studs provided.
- (d) Name plate.
- (e) Schematic drawing.
- (f) Type test reports MCCB & Distribution box.
- (g) Test reports, literature of the bought out items and raw materials.
- (h) Testing facilities available at the works.
- (i) List of customers with detailed address/purchase reference, quantity and year of supply with user certificate for such items.

Registered Office of NESCO, WESCO & SOUTHCO

Group – B : Sl. No. – 1, 2, 3, 4 & 5 : LT Distribution Box

Guaranteed Technical Particulars

Sl. No	Description	Bidders' Offer for 25 KVA Box	Bidders' Offer for 250 KVA Box(With 3 O/G)	Bidders' Offer for 250 KVA Box(With 2 O/G)	Bidders' Offer for 315 KVA Box(With 2 O/G)
1	Rated voltage & type				
2	Thickness of enclosure				
3	Size of Bus bar				
	Phase				
	Neutral				
4	Bus bar material				
5	Over all dimension of board				
	LXWxH				
6	Bus bar supporting insulator				
7	Degree of protection				
8	Standard followed				
9	Terminal capacity				
10	Gland Size Inlet/outlet				
11	Separation barrio MCCB & Kit-Kat				
	MCCB				
12	Name of Manufacturer				
13	Type/code No				
14	Rated Current				
15	No of Poles				
16	Standard followed				
17	Utilization Category				
18	Rated short circuit Breaking capacity				
19	Rated ultimate short circuit Breaking capacity				
20	Type of Protection provided				
21	Extra Preference if any				
	FUSE				
22	Make & voltage				
23	Rating				
24	Terminal Capacity				
25	Wiring detail from bus bar to kit kat fuse				

VOLUME- II

(Sample Forms)

2008-2009

**Tender Notification: CSO/06/LT Cable & Dist Box
(Revised)**

Date: 16.06.2008

BID FORM

DESIGN & SUPPLY OF O & M MATERIALS TO NESCO, WESCO & SOUTHCO

To

**Central Services Office
(NESCO, WESCO & SOUTHCO)
Plot No. 123, Sector – A, Zone – A
Mancheswar Industrial Estate
Bhubaneswar – 751 010**

Sir,

1. We understand that NESCO / WESCO /SOUTHCO is desirous of procuring 'O & M Materials' in it's licensed distribution network area in the sate of Orissa.
2. Having examined the Bidding Documents for the above named works, we the undersigned, offer to deliver the goods in full conformity with the Drawings, Conditions of Contract and specifications for the sum of..... (figures.....) or such other sums as may be determined in accordance with the terms and conditions of the contract. The above amounts are in accordance with the Price Schedules attached herewith and are made part of this bid.
3. If our Bid is accepted, we undertake to deliver the entire goods within 60 days (2 months) from the date of award of purchase order/letter of intent.
4. If our Bid is accepted, we will furnish a performance bank guarantee for an amount of 10% (Ten) percent of the total contract value for due performance of the Contract in accordance with the General Conditions of Contract.
5. We agree to abide by this Bid for a period of 120 days from the date fixed for bid opening under clause 9.0 of GCC, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
6. We declare that we have studied the provision of Indian Income Tax Law and other Indian Laws for supply of equipments/materials and the prices have been quoted accordingly.
7. Unless and until Letter of Intent is issued, this Bid, together with your written acceptance thereof, shall constitute a binding contract between us.
8. We understand that you are not bound to accept the lowest, or any bid you may receive.
9. There is provision for Resolution of Disputes under this Contract, in accordance with the Laws and Jurisdiction of Contract, Clause 19 of GCC.

Dated this..... day of..... 20

Signature..... In the capacity of

.....duly authorized to sign for and on behalf of

(IN BLOCK CAPITALS)

FORMAT FOR BID SECURITY BANK GUARANTEE

(To be issued in a Non Judicial Stamp Paper of Rs. 50/- purchased in the name of the bank)

Whereas [name of the Bidder] (hereinafter called "the Bidder") has submitted its bid dated [date of submission of bid] for the supply of [name and/or description of the goods] (hereafter called "the Bid").

KNOW ALL PEOPLE by these presents that WE [name of bank] at [Branch name and address], having our registered office at [address of the registered office of the bank] (hereinafter called "the Bank"), are bound unto North Eastern Electricity Company of Orissa Ltd., with it's Registered Office at Plot 123, Sector A, Zone A, Mancheswar Industrial Estate, Bhubaneswar – 751 010, (hereinafter called "the Purchaser") in the sum of Rsfor which payment well and truly to be made to the said Purchaser, the Bank binds itself, its successors, and assigns by these presents. Sealed with the Common Seal of the said Bank this ____ day of _____ 20____.

THE CONDITIONS of this obligation are:

1. If the Bidder withdraws its Bid during the period of bid validity specified by the Bidder on the Bid Form; or
2. If the Bidder, having been notified of the acceptance of its Bid by the Purchaser during the period of bid validity:
 - (a) fails or refuses to execute the Contract Form, if required; or
 - (b) fails or refuses to furnish the performance security, in accordance with the Instructions to Bidders/ GENERAL CONDITIONS.;

We undertake to pay to the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that is its demand the purchaser will note that amount claimed by it is due to it, owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including thirty (30) days after the period of bid validity, and any demand in respect thereof should reach the Bank not later than the above date.

(signature of the bank)

Signature of the witness

Registered Office of NESCO, WESCO & SOUTHCO

PROFORMA FOR COMPOSITE CONTRACT PERFORMANCE BANK GUARANTEE

(To be issued in a Non Judicial Stamp Paper of Rs. 50/- purchased in the name of the bank)

Bank Guarantee No.....
Date.....
Ref.

To

NESCO Ltd.
Registered Office at :
Plot No. 123, Sector – A, Zone – A
Mancheswar Industrial Estate
Bhubaneswar – 751 010

Dear Sirs,

In consideration of the NESCO, here in after termed as "Purchaser" having awarded to M/s. with its Registered Office/Head Office at..... (hereinafter referred to as the 'Contractor' which expression shall unless repugnant to the context meaning thereof, include its successors administrators, executors and assigns), a Contract by issue of Letter of Award No.dated.....and the same having been acknowledged by the Contractor, resulting in a Contract bearing No.dated.....valued at.....for.....and the Contractor having agreed to provide a Contract Performance Guarantee for the faithful performance of the entire Contract equivalent to *% (.....percent) of the said value of the Contract to the Purchaser.

We.....(Name & Address) having its Registered Office at..... hereinafter referred to as the 'Bank', which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns) do hereby Guarantee and undertake to pay the Purchaser, on demand any and all monies payable by the Contractor to the extent of.....**.....as aforesaid at any time upto(days/month/year) without any demur, reservation, contest, recourse or protest and/or without any reference to the Supplier. Any such demand made by the Purchaser on the Bank shall be conclusive and binding notwithstanding any difference between the Purchaser and the Contractor or any dispute pending before any Court, Tribunal, Arbitrator or any other authority. The Bank undertakes not to revoke this Guarantee during its currency without previous consent of the Purchaser and further agrees that the Guarantee herein contained shall continue to be enforceable till the Purchaser discharges this Guarantee.

The Purchaser shall have the fullest liberty without affecting in any way the liability of the Bank under this Guarantee, from time to time to extend the time for performance of the Contract by the Contractor. The Purchaser shall have the fullest liberty, without affecting this Guarantee, to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the Contractor, and to exercise the same at any time in any manner, and either to enforce or to forbear to enforce any covenants, contained or implied, in the Contract between the Purchaser and the Contractor or any other course or remedy or security available to the Purchaser. The Bank shall not be released of its obligations under these presents by any exercise by the Purchaser of its liberty with reference to the matters aforesaid or any of them or by reason of any other act of

Registered Office of NESCO, WESCO & SOUTHCO

forbearance or other acts of omission or commission on the part of the Purchaser or any other indulgences shown by the Purchaser or by any other matter or thing whatsoever which under law would, but for this provision have the effect of relieving the Bank.

The Bank also agrees that the Purchaser at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against Supplier and notwithstanding any security or other Guarantee the Purchaser may have in relation to the Contractor's liabilities.

Notwithstanding anything contained hereinabove our liability under this Guarantee is restricted toand it shall remain in force upto and including and shall be extended from time to time for such period (not exceeding one year),as may be desired by M/s..... on whose behalf this Guarantee has been given.

Dated this..... day of 20..... at.....

WITNESS

(Signature)..... (Signature).....

(Name)..... (Name).....

..... (Official Address)

(Designation with Bank Stamp)

Attorney as per Power of Attorney No.....

Dated.....

NOTE:

1. *This sum shall be Ten percent (10%) of the Contract price.

**The date will be ninety (90) days after the end of Warranty Period as specified in the Contract.
2. The stamp papers of appropriate value shall be purchased in the name of issuing bank.
3. Performance security is to be provided by the successful bidder in the form of a bank guarantee, which should be issued by any Scheduled Bank.