

BID DOCUMENT

for

Supply of Power Plant Comprising of Rectifier, Battery & UPS

for

Modernization, Expansion of Network and the Infrastructures

of

Sierra Leone Telecommunications Company Ltd

REPUBLIC OF SIERRA LEONE

Tender No: TCIL/15/1185/1/10-MM/26E

Date : August 30, 2010

Issued By :

Material Management Division

Fourth Floor,

Fax :+91 (11) 26242266

Tel: +91 (11) 26202020

Email: mmdiv@tcil-india.com

visit us at <http://www.tcil-india.com>



Telecommunications Consultants India Ltd.

(A Govt. of India Enterprise)

Material Management Division

TCIL Bhawan, Greater Kailash-I

New Delhi – 110048 (India)

IS/ISO 9001



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SECTION - 1

Tender No.: TCIL/15/1185/1/10-MM/26E

30.08.2010

NOTICE INVITING TENDERS

Sealed tenders are invited from registered manufacturers of Power Plant Comprising of Rectifier, Battery & UPS for Modernization, Expansion of Network and the Infrastructures of Sierra Leone Telecommunications Company Ltd, being executed by TCIL in Republic of Sierra Leone, Africa.

Tender documents shall be available from the office of the Group General Manager (MM), 4th Floor, TCIL Bhawan G.K-I, New Delhi - 110 048 on payment of non-refundable fee of Rs. 400.00 by Demand Draft in favour of “**Telecommunications Consultants India Ltd.**”, Payable at New Delhi.

Tenderers requesting tender documents through post should include an additional amount of Rs.50. Mailing of tender will be wholly at the risk of the Tenderers.

Last date of sale of **tender documents is 20.09.2010.**

Complete tender documents are also available on TCIL’s website, address given below:

[http:// www.tcil-india.com](http://www.tcil-india.com)

The documents downloaded by the parties from the website shall be valid for participation in the tender process. Those making use of the tender documents downloaded from the website shall have to pay the fee of the document in the form of a demand draft along with the tenders. Tenders received without the requisite fee shall be considered as invalid ab-inito.

ELIGIBILITY CRITERIA

1. The Bidder should be a registered manufacturer or Authorized Dealer of Power Plant Comprising of Rectifier, Battery & UPS .
2. Average Annual Financial Turnover of the bidder during the last 3 years, ending March 2010 should be at least Rs.40 lacs.
3. Experience of having successfully supplied similar Power Plant Comprising of Rectifier, Battery & UPS specified in the document for telecom works during the last two years ending August 2010 should be either of the following :
 - i) Two similar supplies each costing not less than Rs. 31 lacs.
 - OR
 - ii) One similar supply costing not less than Rs. 63 lacs.
4. The Bidder must be registered in India as Indian Company dealing with above Products.

Note: The bidder shall be required to produce supporting documents in respect of the above Eligibility Criteria.

Earnest money amounting to Rs. 1,00,000/- (Rupees One Lac only) by Demand Draft in favour of "Telecommunications Consultants India Ltd.)/Bank Guarantee in the prescribed format from a scheduled bank from its branch at Delhi/New Delhi shall be submitted along with the tender.

Tenders received without EMD/inadequate EMD shall be summarily rejected.

Two-stage bid system shall be adopted, i.e., Techno-Commercial Offer and Price Offer.

Tender documents fee (when documents are downloaded from website) and EMD shall be part of Techno-Commercial Offer.

The tenders shall be submitted in the Office of the Group General Manager (MM), TCIL, 4th Floor, TCIL Bhawan, G.K.-I, New Delhi-110048 on **or before 15:00 hrs., on 20.09.2010.**

In the first stage, the Techno-Commercial Offers shall be **opened at 16:00 hrs., on 20.09.2010** in the presence of Tenderers or their authorized representatives present at the time of tender opening.

The Price Offers of only those parties who qualify in the first stage shall be opened at time and date to be notified separately.

TCIL reserves the right to accept or reject any or all the tenders without assigning any reason.

(D. MANNA)
Group General Manager (MM)

-END OF SECTION 1-

SECTION - 2

Tender No.: TCIL/15/1185/1/10-MM/26E

30.08.2010

INSTRUCTIONS TO BIDDERS

- 2.1 INTRODUCTION (DEFINITIONS)
- 2.2 BIDDER TO BEAR COST OF PURCHASE OF TENDER
- 2.3 BID DOCUMENTS
- 2.4 AMENDMENT TO BID DOCUMENTS
- 2.5 EXTENSION OF TIME
- 2.6 BID PRICE
- 2.7 BIDDERS ELIGIBILITY AND QUALIFICATIONS
- 2.8 BID SECURITY
- 2.9 VALIDITY PERIOD OF BID
- 2.10 FORMAT OF SIGNING OF THE BID
- 2.11 DEADLINE FOR SUBMISSION OF BID
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- 2.13 MODIFICATION AND WITHDRAWAL OF BIDS
- 2.14 OPENING OF TECHNO-COMMERCIAL OFFER
- 2.15 CLARIFICATION OF BIDS
- 2.16 EVALUATION OF TENDERS
- 2.17 PURCHASER'S RIGHT TO VARY QUANTITIES
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- 2.19 NOTIFICATION OF SUCCESSFUL BIDDER
- 2.20 ISSUE OF LETTER OF INTENT
- 2.21 CANCELLATION OF LETTER OF INTENT
- 2.22 POST BID CLARIFICATIONS
- 2.23 DELIVERY/TIME FRAME
- 2.24 SUBMISSION OF BID
- 2.25 OPENING OF PRICE Offer

2.1 INTRODUCTION (DEFINITIONS)

- 2.1.1** “Purchaser” means Telecommunications Consultants India Ltd. (TCIL), its Head Quarter at New Delhi or any other project/branch offices within or outside India.
- 2.1.2** “Bidder” means the individual or firm or corporate body or consortium ,if allowed , or association of persons who participates in the tender and submits its bid.
- 2.1.3** “Goods/Products” means all the hardware equipments, instruments, tools, machinery etc., and/or other materials like components/parts/spares including consumables which the supplier is required to supply to the Purchaser under the Purchase Order.
- 2.1.4** “Letter of Intent (LOI)” means the communication of the intention of the Purchaser to the Bidder to place the Purchaser Order for the former’s offered goods/services.
- 2.1.5** “Purchase/Work Order (PO)” means the order placed by the Purchaser on the Supplier duly signed by the Purchaser’s authorized representative to purchase certain goods & services from the vendor/contractor.
- 2.1.6** “Contract Price” means considerations payable to the supplier/contractor as stipulated in the Purchase or Work Order for performance of specified contractual obligations.

2.2 BIDDER TO BEAR COST OF PURCHASE OF TENDER

The Bidder shall bear all costs associated with the preparation and submission of the bid. The Purchaser in any case will not be responsible or liable for these costs regardless or the conduct of the bidding process.

2.3 BID DOCUMENTS

- 2.3.1** Bid Documents includes: -

Section 1	Notice Inviting Tender
Section 2	Instructions to Bidders
Section 3	General Conditions of the Contract
Section 4	Special Conditions of Contract
Section 5	Bill of Quantity and Price Bid Schedule
Section 6	Technical Specifications
Section 7	Bid Bond/EMD Format
Section 8	Performance Bank Guarantee (PBG) Format

- 2.3.2** Any clarification or communications obtained from the Purchaser

2.4 AMENDMENT TO BID DOCUMENTS

- 2.4.1** At any time, prior to the date of submission of bids, the Purchaser may for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the bid documents by amendments.

2.4.2 The amendments will be notified in writing or by telex or fax to all prospective bidders who have received the bid documents and these amendments will be binding on them.

2.5 EXTENSION OF TIME

In order to give prospective bidders required time in which to take the amendments into action in preparing their bid, the Purchaser may at its discretion extend the deadline for submission of bid suitably.

2.6 BID PRICE

Unit prices/rates shall be quoted as given in Special Conditions of the tender in Section – 4.

2.7 BIDDERS ELIGIBILITY AND QUALIFICATIONS

Bidder shall furnish as a part of bid documents establishing the bidder's eligibility to supply the material. The bidder shall also submit documentary evidence in the form of literature, drawing, data on the goods offered.

2.8 BID SECURITY

2.8.1 The Bidder shall submit, as part of bid security as mentioned in the NIT. The bid security shall be in one of the following forms: -

- (a) A Bank Guarantee as per enclosed format issued by a schedule bank in favour Purchaser valid for a period of 180 days from the date of tender opening.
- (b) Demand Draft or Pay Order from a Scheduled Bank in favour of M/s Telecommunications Consultants of India Ltd., payable at Delhi.

2.8.2 The bid not secured in accordance with the above shall be rejected by the Purchaser as non-responsive.

2.8.3 The bid security of the unsuccessful bidder will be discharged/ returned as promptly as possible but not later than 30 days after expiry of the bid validity period prescribed by the Purchaser.

2.8.4 The successful bidder's bid security will be discharged upon the bidder's submission of the Performance Guarantee.

2.8.5 The bid security may be forfeited under the following circumstances:-

- a) If a bidder withdraws his bid during the period of bid validity specified by the bidder on the bid form.
- b) In case of a successful bidder, if he fails to submit the Performance Guarantee within the time prescribed or
- c) If he fails to supply the material in terms of the project.

2.8.6 No interest is payable on EMD.

2.8.7 In case of inadequacy or non-submission of prescribed EMD, the tender shall be deemed to be disqualified and shall be summarily rejected in the technical evaluation.

2.9 VALIDITY PERIOD OF BID

Bid shall remain valid for 180 days after the date of bid opening. The bid valid for a shorter period shall be rejected by the Purchaser as non-responsive.

In exceptional circumstances, the purchaser may request the consent of the bidder for an extension to the period of bid validity. The bid security provided under clause 2.8.1 (a) shall also be suitably extended. A bidder accepting the request and granting extension will not be permitted to modify his bid.

2.10 FORMAT OF SIGNING OF THE BID

2.10.1 The bidder shall prepare two copies of the bid clearly marking as one copy as “Original Copy” and the other as “Copy” & also provide softcopy of technical bid on CD-ROM in MS-Word format.

2.10.2 In the event of any discrepancy between them, original shall prevail.

2.10.3 The original copy of the bid shall be typed and shall be signed by the bidder or a person duly authorized by the bidder. The Letter of Authorization shall be accompanied by a written Power of Attorney accompanying the bid.

2.10.4 All pages of the original bid except printed literature shall be initialed by the person signing the bid.

2.10.5 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 bidder signing the bid.

2.11 DEADLINE FOR SUBMISSION OF BID

Bid must be received by the Purchaser at the address specified and not later than the date and time specified in the NIT.

2.12 LATE BID

Any bid received late by the Purchaser after the deadline for submission of the bid shall be rejected and returned un-opened to the bidder.

2.13 MODIFICATION AND WITHDRAWAL OF BIDS

2.13.1 The bidder may modify or withdraw his bid provided that written notice of modification or withdrawal is received by the Purchaser prior to the deadline prescribed for submission of bids.

2.13.2 No bidder may modify or be allowed to withdraw bid subsequent to the deadline for submission of bids.

2.14 OPENING OF TECHNO-COMMERCIAL OFFER (PART-1)

2.14.1 The Purchaser shall open the Techno-Commercial Offer (Part-1) in the presence of authorized bidder's representatives who choose to attend at date and time specified in the NIT. The bidder's representative who are present shall sign the Attendance Register.

2.14.2 A maximum of two representatives for any bidder shall be permitted and authorized to attend the bid opening.

2.14.3 The date fixed for opening of bids, if subsequently declared as holiday by the TCIL, the revised date of schedule will be notified. However, in absence of such notification, the bids will be opened on next working day, time and venue remaining unaltered.

2.15 CLARIFICATION OF BIDS

2.15.1 To assist evaluation and comparison of the bids, the Purchaser may at its discretion may ask the bidder for clarification of the bid. The clarification and response from bidder shall be in writing.

2.15.2 The Purchaser does not bind himself to accept the lowest or any tender and reserves to himself the right to accept the whole or any part of the tender and altering the quantities offered and tenderer shall supply the same at the rate quoted.

2.16 EVALUATION OF TENDERS

2.16.1 The Purchaser shall evaluate the bids in respect to the substantive responsiveness of the bid or otherwise. The Purchaser shall carry out detailed evaluation of the substantially responsive bids. The Purchaser shall check the bid to determine whether they are complete, whether any computational errors have been made or required sureties have been furnished.

2.16.2 Arithmetical error shall be rectified on the following basis :-

- a) If there is a discrepancy between the unit price and total price that is obtained multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected by the Purchaser.
- b) In case of discrepancy between words and figures, the amount in words shall prevail.

2.16.3 A bid determined as substantially non-responsive shall be rejected by the Purchaser.

2.16.4 The Purchaser may waive any minor infirmity or non-conformity or irregularity in the bid which does not constitute a material deviation.

2.16.5 The Purchaser shall evaluate in detail and compare the bids which are substantially responsive.

- 2.16.6 The evaluation of the ranking shall be carried out on the landed price of goods offered inclusive of all taxes.
- 2.16.7 The distribution of tendered quantity amongst the technically and commercially complied bidders shall be based on merits of each case.
- 2.16.8 TCIL shall have the sole discretion in deciding the number of parties on whom the orders shall be finally placed.

2.17 PURCHASER'S RIGHT TO VARY QUANTITIES

- 2.17.1 The Purchaser reserves the right at the time of award of the contract to increase the quantity of the goods and services specified in the schedule of requirements without any change in unit price of the ordered quantity.
- 2.17.2 In case of division of order among number of parties. The distribution of quantity will be accordingly done by the Purchaser on an individual tender.

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

The Purchaser does not bind himself to accept lowest or any other tender/bid and has the right to cancel the bidding process and reject all bids at any time prior to award of the contract without assigning any reasons whatsoever and without thereby incurring any liability to the affected bidder on the grounds for the Purchaser's action.

2.19 NOTIFICATION OF SUCCESSFUL BIDDER

- 2.19.1 Prior to the expiration of the bid period, the Purchaser will notify the successful bidder in writing by registered letter or fax, to be confirmed in writing by registered letter that its bid has been accepted.
- 2.19.2 Upon successful bidder furnishing of Performance Guarantee, the Purchaser will notify each successful bidder and will discharge its bid bond.

2.20 ISSUE OF LETTER OF INTENT

- 2.20.1 The issue of Letter of Intent shall constitute the intention of the Purchaser to place the Purchase Order with the successful bidder.
- 2.20.2 The bidder shall within 10 days of issue of Letter of Intent give its acceptance along with Performance Guarantee in conformity with the bid documents.

2.21 CANCELLATION OF LETTER OF INTENT

Failure of the successful bidder to comply with the requirement of submission of Performance Guarantee in time shall constitute sufficient ground for the cancellation of the acceptance of bid and forfeiture of the bid bond, in which case Purchaser may make the offer to any other bidder at the discretion of the Purchaser or call for new bids.

2.22 POST BID CLARIFICATIONS

No post bid clarification at the initiative of the bidders shall be entertained and any effort by the bidders to influence the Purchaser in the Purchaser's bid evaluation, bid comparison or award of the contract shall result in rejection of the bid.

2.23 DELIVERY

Delivery of the goods shall be made by the supplier in accordance with the terms specified by the Purchaser in the Special condition of the contract and goods shall remain at the risk of the supplier until delivery have been completed in full. The Schedule of delivery shall be the essence of the contract.

2.24 SUBMISSION OF BID

Sealed offer shall be submitted in two separate envelopes.

Envelope 1 superscribed as PART-1 (Techno-Commercial Offer) shall contain the following , with clear identification for each part of the document:

- a) Documentary evidence in respect of the eligibility criteria mentioned in the N.I.T.
- b) EMD/Bid Bond
- c) Demand Draft for Rs. 400 in favour of "Telecommunications Consultants India Ltd." payable at New Delhi if the tender document is downloaded from the website.
- d) Detailed technical brochure of the product offered, along with documents , clearly evidencing the technical compliance of the product offered wrt TCIL's requirement as given in Sec 6 of Tender Document . Wherever applicable, bidder shall intimate Make, Model No. of the product.
- e) Un-priced BOQ indicating Items and Quantities offered . This should be same as the Price Bid format without the price.
- f) Bidder should clearly state IS or other international specification the product is confirming to.
- g) A statement showing Clause-by-Clause compliance to all the Terms & Conditions of the tender specified at Section 1, 2, 3, 4, 5, 6, 7 & 8.
- h) Organization chart with name and qualification of key persons.
- i) List of plant and machinery.
- j) Preferably, Bidder should provide duly signed copy of respective ISO specification as indicated in section 6 of this tender.
- k) Bidder should attached photograph of the offered items.

Envelope 2 superscribed as PART-II (Price Offer) shall contain the Price Bid Schedule as per the format given in Section –5 of the Bid Document.

Price should be quoted strictly as per format given in section – 5 of the Bid Document. Noncompliance to this attracts tender to be summarily rejected.

A single sealed envelope containing both the envelopes (i.e. Envelope 1 & Envelope 2 sealed separately) shall be addressed to the purchaser at the following address:

Group General Manager (MM)
Telecommunications Consultants India Limited,
MM Division,
TCIL Bhawan, Fourth Floor,
Greater Kailash – I, New Delhi – 110 048.
Tel: +91-11-26202020/Ext. 2406
Fax: +91-11-26242266/26241847

The envelopes should be superscribed “Tender No. TCIL/15/1185/1/10-MM/26E dated 30.09.2010 for **“Supply of Power Plant Comprising of Rectifier, Battery & UPS for Modernization, Expansion of Network and the Infrastructures of Sierra Leone Telecommunications Company Ltd in Republic of Sierra Leone, Africa.”** and also **“Do not open before due date (date to be mentioned)”**”.

The tender may be sent by the tenderers by Courier/Speed-post, with the envelope marked as above. Alternatively, tenders may also be deposited by the tenderers in the tender box kept in MM-Division at 4th floor at TCIL Bhawan.

The tender box shall be sealed at the stipulated deadline for submission.

The tender box shall be opened at the stipulated time of opening in the presence of intending bidders.

The names/designations of concerned officers who can be contacted are mentioned below:

Mr. V. K. Sinha
Joint General Manager (MM)
Tele: 26202412

Mr.Devki Nandan
Manager (MM)
Tele: 26202424

- (i) The inner and outer envelopes shall indicate the name and address of the bidders to identify the bid and to enable the bid to be returned unopened in case it is declared ‘late’ or ‘rejected’.
- (ii) **VENUE OF TENDER OPENING:** Tender shall be opened in 4th floor TCIL Bhawan, New Delhi-110048 at the time on the due date mentioned in the N.I.T. If due to administrative reason the venue of Bid opening is changed it will be duly displayed at the Reception Hall of TCIL Bhawan.
- (iii) Offer received through Fax/E-mail or through open letter shall be ignored.

2.25 OPENING OF PRICE OFFER

Price offer of only those bidders will be opened whose Techno-Commercial offers are found to be qualified and acceptable to TCIL. Bidder's authorized representative may attend the Price Offer opening. The qualified parties shall be notified with the date, time & venue of the opening of the Price Offer.

-END OF SECTION 2-

SECTION - 3

Tender No.: TCIL/15/1185/1/10-MM/26E

30.08.2010

GENERAL (COMMERCIAL) CONDITIONS OF THE CONTRACT

- 3.1 PRICE APPLICABILITY
- 3.2 STANDARDS
- 3.3 PATENT RIGHTS
- 3.4 PERFORMANCE SECURITY
- 3.5 INSPECTION AND TESTS
- 3.6 TRAINING
- 3.7 WARRANTY
- 3.8 CHANGE ORDERS
- 3.9 SUB-LETTING
- 3.10 LIQUIDATED DAMAGES
- 3.11 ARBITRATION
- 3.12 RISK PURCHASE
- 3.13 APPLICABLE LAWS
- 3.14 GENERAL LIEN
- 3.15 PACKING
- 3.16 REPLACEMENT OF DEFECTIVE EQUIPMENT
- 3.17 FORCE MAJEURE
- 3.18 TERMINATION FOR DEFAULT
- 3.19 TERMINATION FOR INSOLVENCY
- 3.20 ADD-ON ORDER

3.1 PRICE APPLICABILITY

Prices in the Purchase Order shall remain valid for the period of delivery schedule or extended delivery schedule. In case of delayed supplies, after delivery period, the advantage of reduction of taxes/duties shall be passed onto the Purchaser and no benefit of increase will be permitted to the Supplier.

3.2 STANDARDS

The goods supplied under the contract shall conform to the standards mentioned in the Technical Specifications.

3.3 PATENT RIGHTS

The Supplier shall indemnify the Purchaser against all third party actions/claims of infringement of patent, trademark or industrial design rights arising from the use of goods or any part thereof.

3.4 PERFORMANCE SECURITY

3.4.1 Within 10 days of the Supplier's receipt of Letter of Intent (LOI)/P.O., the Supplier shall furnish a Performance Security for the amount of 10% of the contract/P.O value.

3.4.2 The proceeds of the Performance Security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the contract.

3.4.3 The supplier shall submit PBG within 10 days of the PO date for a value of 10% of the total P.O. value issued through Indian Scheduled Bank from it's Delhi Branch valid to cover the period of warranty.

3.4.4 The Performance Bond will be discharged by the Purchaser after completion of the Supplier's obligations including any warranty obligations under the contract.

3.4.5 As regards validity of PBG, please refer to Special Conditions of the contract (Section-4).

3.5 INSPECTION AND TESTS

3.5.1 The Purchaser or its representatives or ultimate client shall have the right to inspect and test the goods for their conformity to the specifications. The Purchaser may also appoint an agency for this purpose. The technical specifications shall specify what inspection and tests the Purchaser requires and where they are to be conducted. Where the Purchaser decides to conduct such tests on the premises of the Supplier, all reasonable facilities and assistance like testing instruments and other test gadgets including access to the drawings and production data shall be furnished to the Inspector free of costs. In case the tested goods fail to conform to the specifications, the Inspector may reject them and the Supplier shall either replace the rejected goods or make alteration necessary to meet the specifications requirements free of cost to the Purchaser.

- 3.5.2 Notwithstanding the pre-supply tests and inspections, the material on receipt in the Purchaser's premises shall also be tested and if any material or part thereof is found defective, the same shall be replaced free of cost to the Purchaser.

If any material before it is taken over is found defective or fails to fulfill the requirements of the contract, the Inspector shall give the Supplier notice setting forth details of such defects or failures and the Supplier shall make the material good or alter the same to make it comply with the requirements of the contract and in any case within a period not exceeding 2 months of the initial report. These replacements shall be made by the Supplier, free of the all charges, at the site(s).

- 3.5.3 As regards Inspecting Authority and other details please refer to Special Condition of the Contract (Section-4).

3.6 TRAINING (WHERE REQUIRED)

- 3.6.1 The Bidder shall provide training for installation and maintenance staff of the Purchaser free of cost, where required.
- 3.6.2 The Bidder shall specify in his bid the number of trainees, quantum of proposed training, pre-training qualifications required of the trainees and the duration of the proposed training required.
- 3.6.3 The Bidder shall provide all training materials and documents and aids.
- 3.6.4 Conduct of training of the Purchaser's personnel shall be at the suppliers' plant and/ or on-site in assembly start-up operation, maintenance and/or repair of the supplied goods.

3.7 WARRANTY

- 3.7.1 The Supplier shall give warranty that goods to be supplied shall be new and free from all defects and faults in material, workmanship, and manufacture and shall be of the highest grade and consistent with the established and generally accepted standards for materials of the type ordered and shall perform in full conformity with the specifications and drawings. The Supplier shall be responsible for any defects that may develop under the conditions provided by the supplier and under proper use, arising from faulty materials, design or workmanship such as corrosion of the equipment, inadequate contact protection, deficiencies in circuit design and or otherwise and shall remedy such defects at his own cost when called upon to do so by the Purchaser who shall state in writing in what respect goods are faulty. This warrantee shall survive inspection or payment for, and acceptance of goods, but shall expire except in respect of complaints notified prior to such date or 12 months after the goods have been taken over.

However the warranty period specified, if any, in the Special Condition of Contract (Section – 4) the same shall rule.

- 3.7.2 If it becomes necessary for the supplier to replace or renew any defective portion/portions of the equipment under this clause, the provisions of the clause shall apply to the portion/portions of equipment's replaced or renewed or until the end of the above-mentioned period of twelve months, whichever may be later. If any defect is not remedied within a reasonable time, the Purchaser may proceed to get the work done at the Supplier's risk and expenses, but without prejudice to any other rights which the Purchaser may have against the Supplier in respect of such defects.
- 3.7.3 Replacement under warranty clause shall be made by the Supplier free of all charges at site including freight, insurance and other incidental charges.

3.8 CHANGE ORDERS

- 3.8.1 The Purchaser may at any time by written order given to the Supplier make changes within the general scope of the contract in any one or more of the following:-
- a) Drawings, designs or specifications where goods to be furnished under the contract are to be specifically manufactured for the Purchaser.
 - b) Method of transportation or packing.
 - c) Place of delivery.
 - d) Services to be provided by the supplier.
- 3.8.2 If any such change causes an increase or decrease in the cost or the time required for the execution of the contractor, an equitable adjustment shall be made in the contract price or delivery schedule or both and the contract shall accordingly be amended.

3.9 SUB-LETTING

The Bidder cannot assign or transfer and sub-contract its interest/ obligations under the contract without prior written permission of the Purchaser.

3.10 LIQUIDATED DAMAGES

- 3.10.1 The date of the delivery of the goods stipulated in the acceptance of tender should be deemed to be the essence of the contract and the delivery must be completed not later than the dates specified therein. Extension in delivery period will not be given except in exceptional circumstances. Should, however, deliveries be made after expiry of the contract delivery period and accepted by the consignee, such deliveries will not deprive the Purchaser of the right to recover Liquidated Damages.
- 3.10.2 In case the Supplier fails to supply the material against the order, the material shall be procured from other suppliers at the cost and risk of the Supplier and the excess money will be recovered from any dues of the party.
- 3.10.3 For late supplies, as liquidated damages, a sum equal to 1% of the price of any goods not delivered or total order value in case where part delivery is of no use to a Purchaser, for a week or part of a week subject to maximum limit of 5% of the total order will be recovered from the Supplier. The Purchaser also reserves the right to cancel the order in such cases and forfeit the EMD/Performance Bank Guarantee and may also debar the Supplier for future purchases.

3.10.4 LD can be recovered from any dues of the Supplier.

3.11 ARBITRATION

In case of Foreign Bidders :

3.11.1 Any dispute or differences arising out of the contract which cannot be amicably settled between the supplier and the purchaser shall be decided as per arbitration rules of International Chamber of Commerce, Geneva. For arbitration, the venue shall be Geneva.

In case of indigenous Bidders:

3.11.2 In the event of any dispute arising between TCIL and the Supplier in any matter covered by this contract or arising directly or indirectly therefrom or connected or concerned with the said contract in any manner of the implementation of any terms and conditions of the said contract, the matter shall be referred to the Chairman & Managing Director, TCIL who may himself act as sole arbitrator or may name as sole arbitrator an officer of TCIL notwithstanding the fact that such officer has been directly or indirectly associated with this contract and the provisions of the Indian Arbitration Conciliation Act, 1996 shall apply to such arbitration. The supplier expressly agrees that the arbitration proceedings shall be held at New Delhi.

3.11.3 The proceedings of arbitration shall be in English language:

3.11.4 In case any supplier wants to take the dispute to a court of law after arbitration award as aforesaid, it is clearly understood that only courts in Delhi shall have the Jurisdiction.

3.11.5 In case of Public Sector Undertaking/Government Departments

In the event of any dispute or difference relating to the interpretation and application of the provisions of the contracts with any Public Sector Undertaking / Government Department, such dispute or difference shall be referred by either party for Arbitration to the sole Arbitrator in the Department of Public Enterprises to be nominated by the Secretary to the Government of India in-charge of the Department of Public Enterprises. The Arbitration and Conciliation Act, 1996 shall not be applicable to arbitration under this clause. The award of the Arbitrator shall be binding upon the parties to the dispute, provided, however, any party aggrieved by such award may make a further reference for setting aside or revision of the award to the Law Secretary, Department of Legal Affairs, Ministry of Law & Justice, Government of India. Upon such reference, the dispute shall be decided by the Law Secretary or the Special Secretary / Additional Secretary, when so authorized by the Law Secretary, whose decision shall bind the Parties finally and conclusively. The Parties to the dispute will share equally the cost of arbitration as intimated by the Arbitrator.

3.12 RISK PURCHASE

3.12.1 In the event of Supplier's failure to execute the contract to the satisfaction of the Purchaser, the Purchaser reserves the right :

- (a) to reject any part of the Contract executed and withhold payment for such portion of the Contract till such time the defects are rectified to the satisfaction of the Purchaser.
- (b) to terminate the Contract by giving 2 weeks notice in writing without assigning any reason and to get the Contract executed by other agency at the risk and cost of the Supplier.

3.13 APPLICABLE LAWS

This contract shall be interpreted, construed and governed by the laws of the Republic of India and the parties hereby submit to the exclusive jurisdiction of the Court and to all Courts having jurisdiction in appeal therefrom.

Any dispute in relation to the contract shall be submitted to the appropriate Court of the Republic of India for determination. The parties to the contract shall continue to fulfill their respective obligations under the contract during the currency of the contract pending the final decision of the Court.

3.14 GENERAL LIEN

Whenever under this contract any sum of money is recoverable from and payable by the Supplier, the Company shall be entitled to recover such sum by appropriating in part or in whole the security deposit of the Supplier, if a security is taken from the Supplier. In the event of the Security being insufficient or if no security has been taken from the Supplier, the balance or the total sum recoverable, as may be, shall be deducted from any sum due to the Supplier or which at any time thereafter may become due to the Supplier under this or any other contract with the Company. Should this sum be not sufficient to cover the full amount recoverable, the Supplier shall pay to the Company on demand the remaining balance due.

3.15 PACKING

The supplier shall ensure that the Goods/Equipment is securely and adequately packed to ensure safe arrival at the destination fully withstanding all hazards such as rough handling etc. during transit.

3.16 REPLACEMENT OF DEFECTIVE EQUIPMENT

- 3.16.1 If any equipment or any part thereof, is found defective or fails to meet the requirements of the contract before it is accepted TCIL shall give the Supplier a notice setting forth details of such defects or failures and the Supplier shall forthwith arrange to set right the defective equipment or replace the same by the good one to make it comply with the requirements of the contract. This in any case shall be completed within a period not exceeding one month from the date of the initial report pointing out the defects. The replacement or rectification shall be made at site by the Supplier free of cost. Should the Supplier fail to do the needful within this stipulated time frame, the purchaser reserves the right to reject the equipment in full or in part and get it replaced at the cost of the Supplier. The cost of any such replacement made by the Purchaser shall be deducted from the amount payable to the Supplier against this purchase order.

3.16.2 If any equipment or part thereof is lost or rendered defective during transit, pending settlement of the insurance claim, fresh order shall be placed on the Supplier for such loss or defective equipment and the Supplier shall arrange to supply the same within three months of such order at the same prices and on the same general terms and conditions as mentioned in this purchase order.

3.17 FORCE MAJEURE

If any time, during the continuance of this contract, the performance in whole or in part by either party under obligation as per this contract is prevented or delayed by reasons of any war or hostility, act of the public enemy, civil commotion, sabotage, fire, flood, explosion, epidemic, quarantine restrictions, strike, lockout or acts of God (hereinafter referred to "eventuality"), provided notice of happening of any such eventuality is given by either party to the other within 21 days of the date of occurrence thereof, neither party shall be reason of such an "eventuality" be entitled to terminate this contract nor shall either party have any claim or damages against the other in respect of such non-performance or delay in performance and deliveries under the contract. The contract shall be resumed as soon as practicable after such "eventuality" has come to an end or ceased to exist. In case of any dispute, the decision of CMD, TCIL, shall be final and conclusive, provided further that if the performance in whole or part of any obligation under this contract is prevented or delayed by reason of any such eventuality for a period exceeding 60 days, either party may at its option, terminate the contract. Provided also that if the contract is terminated under this clause the Purchaser shall be at liberty to take over from the Supplier at a price to be fixed by the Purchaser, which shall be final, all unused, undamaged and acceptable materials, bought out components and other stores in the course of manufacture which may be in the possession of the Supplier at the time of such termination, or such portion thereof as the Purchaser may deem fit except such material, as the Supplier may, with the concurrence of the Purchaser, elect to retain.

3.18 TERMINATION FOR DEFAULT

3.18.1 The Purchaser, may, without prejudice to any other remedy for breach of contract, by written notice of default, sent to the Supplier, terminate this contract in whole or in part.

- a) if the supplier fails to deliver any or all the goods within the time period (s) specified in the contract, or any extension thereof granted by the Purchaser .
- b) if the Supplier fails to perform any other obligation(s) under the contract; and
- c) if the Supplier, in either of the above circumstances, does not remedy his failure within a period of 15 days (or such longer period as the Purchaser may authorize in writing) after receipt of the default notice from the Purchaser.
- d) On a notice period of 30 days.

3.18.2 In the event the Purchaser terminates the contract in whole or in part pursuant to above para the Purchaser may procure, upon such terms and in such manner as it deems appropriate, goods similar to those undelivered and the Supplier shall be liable to the Purchaser for any excess cost for such similar goods. However, the Supplier shall continue the performance of the contract to the extent not terminated.

3.19 TERMINATION FOR INSOLVENCY

The Purchaser may at any time terminate the Contract by giving written notice to the Supplier, without compensation to the supplier if the supplier becomes bankrupt or otherwise insolvent as declared by the competent court provided that such termination will not prejudice or effect any right of action or remedy which has accrued or will accrue thereafter to the purchaser.

3.20 ADD-ON ORDER

TCIL reserves the right to place Add-on order for additional quantity upto 25% of the original quantity at the same rate and terms & conditions of the purchase order.

- END OF SECTION 3 -

SECTION – 4

Tender No.: TCIL/15/1185/1/10-MM/26E

30.08.2010

SPECIAL CONDITIONS OF THE CONTRACT

- 4.1 PRICE BASIS
- 4.2 PAYMENT TERMS
- 4.3 VALIDITY OF OFFER
- 4.4 PERFORMANCE BANK GUARANTEE (PBG)
- 4.5 PAYING AUTHORITY
- 4.6 CONSIGNEE
- 4.7 WARRANTY
- 4.8 DELIVERY PERIOD
- 4.9 LIQUIDATED DAMAGES (LD)
- 4.10 INSPECTION/TESTING OF RAW MATERIALS
- 4.11 QUANTITY VARIATION CLAUSE

4.1 PRICE BASIS

To be quoted in INR on CIF, Free Town, Sierra Lone basis. However Price breakup giving total Ex-Factory amount for the deliverables, freight, Insurance & Taxes applicable must be given by the bidders.

Financial evaluation will be done based on total CIF Price inclusive of all taxes.

4.2 PAYMENT TERMS

100% payment to be released through L/C as per details below:

- a) 80% within 90 days from the date of Ocean B/L or Airway Bill or within 30 days from the receipt of material at TCIL/ Sierra Tel Stores, Free Town, Sierra Lone, which ever is earlier and subject to submission of following documents:
 - (i) Supplier's Invoice
 - (ii) Manufacturer's Certificate of Quality
 - (iii) Insurance Policy / Certificate for 125% of P.O. value
 - (iv) Material Pre Dispatch Inspection Certificate from TCIL/ or its nominated agency
 - (v) Test Certificates.
 - (vi) Warranty certificate
 - (vii) Certificate from TCIL that PBG has been received in prescribed format
 - (viii) Packing List
 - (ix) Certificate from TCIL that material has been received in good condition.
 - (x) Certificate of Origin issued by Chamber of Commerce

- b) 20% within 180 days from the date of shipment or within 30 days of installation and acceptance by TCIL/ Sierra Tel, whichever is earlier.

4.3 VALIDITY OF OFFER

The offer shall be valid for a period of 180 days from the date of opening of tender. Within that period, the bidder cannot withdraw his offer subject to the period being extended further, if required, by mutual agreement from time to time.

4.4 PERFORMANCE BANK GUARANTEE (PBG)

The supplier shall submit PBG within 10 days of the PO date for a value of 10% of the total P.O. value issued through Indian Scheduled Bank from it's Delhi Branch valid to cover the period of warranty.

4.5 PAYING AUTHORITY

To be intimated at the time of issue of P.O.

4.6 CONSIGNEE

To be intimated at the time of issue of P.O.

4.7 WARRANTY

Warrantee shall be 30 months from the date of B/L OR Airway Bill.

4.8 DELIVERY PERIOD

- Delivery Scheduled at Free Town,
Sierra Lone - 90 days from the date of issue of P.O.

In order to meet the above schedule, the following two schedules should also be complied:-

- Notice for Pre Dispatch Inspection: - 30 days from the date of issue of P.O.
- Dispatch of Material to Free Town,
Sierra Lone (Date of Ocean B / L or
Airway Bill) - 45 days from the date of issue of P.O.

4.9 LIQUIDATED DAMAGES

2% of contract price per week of delay subject to a maximum of 10% of total contract price. Delay will be calculated w.r.t delivery at Free Town, Sierra Lone.

4.10 INSPECTION/TESTING OF MATERIALS

Pre dispatch inspection by TCIL/ or its nominated agency. Supplier will provide all necessary equipments, test and measuring instruments to carry out inspection.

4.11 QUANTITY VARIATION CLAUSE

± 25%

- END OF SECTION 4 -

SECTION – 5

Tender No.: TCIL/15/1185/1/10-MM/26E

30.08.2010

BILL OF QUANTITY & PRICE BID SCHEDULE

Item Code	Item Description	Make & Model	Unit	Qty.	Unit Ex-Works Price	Total Ex-Works Price
					INR	INR
1	2	3	4	5	6	7= 5 X 6
A	Rectifier For Telecom Equipment					
1.1	SMPS Rectifiers in (1 + 1) configuration, 50 A Modules / 48 V along with 19 inch rack with door , surge & lightening protection and Power Distribution box as mentioned in technical specification		No.	28		
1.2	Installation Accessories : AC distribution board with 32 Amp input circuit breaker and 3 nos. of 16 Amp. Cicuit breaker for distribution , DC Distribution Board with 4 nos. of 16 Amp circuit breaker , power cable from AC distribution to rectifier (average distance 15 m) , power cable form rectifier to DC Distribution box (average distance 15 meter) , power cable from rectifier to battery (average distance 10 meter) , Earth cable with lugs (10 meter length) , Nuts & Bolts , cable glands, cable ties etc.		No.	28		
1.3	Spares for 5 year (Complete breakup to be provided)		Lot	1		
2	Maintenance Free Battery (VRLA - 2V cell)					
(a)	VRLA 48 V 100 AH Battery		No.	18		
(b)	VRLA 48 V 120 AH Battery		No.	1		
(c)	VRLA 48 V 200 AH Battery		No.	9		
B	For Exchanges					
1	SMPS Rectifiers in (1 + 1) configuration, 50 A Modules / 48 V along with 19 inch rack with door , surge & lightening protection and Power Distribution box as mentioned in technical specification		No.	12		
a)	Installation Accessories : AC distribution board with 32 Amp input circuit breaker and 3 nos. of 16 Amp. Cicuit breaker for distribution , DC Distribution Board with 6 nos. of 16 Amp circuit breaker , power cable from AC distribution to rectifier (average distance 15 m) power cable from rectifier to battery (average distance 10 meter) , power cable form rectifier to DC Distribution box (average distance 15 meter) , Earth cable with lugs (10 meter length) , Nuts & Bolts , cable glands, cable ties etc.		No.	12		
b)	Spares for 5 year (Complete breakup to be provided)		Lot	1		
2	SMPS Rectifiers in (2 + 1) configuration, 50 A Modules / 48 V along with 19 inch rack with door , surge & lightening protection and Power Distribution box as mentioned in technical specification		No.	2		
a)	Installation Accessories : AC distribution board with 32 Amp input circuit breaker and 3 nos. of 16 Amp. Cicuit breaker for distribution , DC Distribution board with 6 nos. of 16 Amp circuit breaker , power cable from AC distribution to rectifier (average		No.	2		

	distance 15 m) power cable from rectifier to battery (average distance 10 meter) , power cable form rectifier to DC Distribution box (average distance 15 meter) , Earth cable with lugs (10 meter length) , Nuts & Bolts , cable glands, cable ties etc.				
b)	Spares for 5 year (Complete breakup to be provided)		Lot	1	
3	SMPS Rectifiers in 3 + 1 configuration, 50 A Modules / 48 V along with 19 inch rack with door , surge & lightening protection and Power Distribution box as mentioned in technical specification		No.	1	
a)	Installation Accessories : AC distribution board with 63 Amp input circuit breaker and 3 nos. of 32 Amp. Cicuit breaker for distribution , DC Distribution board with 8 nos. of 16 Amp circuit breaker , 2 nos. of 32 Amps. circuit breaker , power cable from AC distribution to rectifier (average distance 15 m) power cable from rectifier to battery (average distance 10 meter) , power cable form rectifier to DC Distribution box (average distance 15 meter) , Earth cable with lugs (10 meter length) , Nuts & Bolts , cable glands, cable ties etc.		No.	1	
b)	Spares for 5 year (Complete breakup to be provided)		Lot	1	
4	SMPS Rectifiers in 4 + 1 configuration, 50 A Modules / 48 V along with 19 inch rack with door , surge & lightening protection and Power Distribution box as mentioned in technical specification		No.	1	
a)	Installation Accessories : AC distribution board with 63 Amp input circuit breaker and 3 nos. of 32 Amp. Cicuit breaker for distribution , DC Distribution board with 8 nos. of 16 Amp circuit breaker , 2 nos. of 32 Amps. circuit breaker , power cable from AC distribution to rectifier (average distance 15 m) power cable from rectifier to battery (average distance 10 meter) , power cable form rectifier to DC Distribution box (average distance 15 meter) , Earth cable with lugs (10 meter length) , Nuts & Bolts , cable glands, cable ties etc.		No.	1	
b)	Spares for 5 year (Complete breakup to be provided)		Lot	1	
5	SMPS Rectifiers in 7 + 1 configuration, 50 A Modules / 48 V along with 19 inch rack with door , surge & lightening protection and Power Distribution box as mentioned in technical specification		No.	1	
a)	Installation Accessories : AC distribution board with 63 Amp input circuit breaker and 3 nos. of 32 Amp. Cicuit breaker for distribution , DC Distribution board with 8 nos. of 16 Amp circuit breaker , 2 nos. of 32 Amps. circuit breaker , power cable from AC distribution to rectifier (average distance 15 m) power cable from rectifier to battery (average distance 10 meter) , ppower cable form rectifier to DC Distribution box (average distance 15 meter) , Earth cable with lugs (10 meter length) , Nuts & Bolts , cable glands, cable ties etc.		No.	1	
b)	Spares for 5 year (Complete breakup to be provided)		Set	1	
6	Maintenance Free Battery (VRLA - 2V cell)				
6.1	VRLA 48 V 100 AH Battery		No.	3	
6.2	VRLA 48 V 120 AH Battery		No.	1	

6.3	VRLA 48 V 200 AH Battery		No.	6		
6.4	VRLA 48 V 240 AH Battery		No.	3		
6.5	VRLA 48 V 300 AH Battery		No.	1		
6.6	VRLA 48 V 600 AH Battery		No.	1		
6.7	VRLA 48 V 1350 AH Battery		No.	1		
7						
7.1	VRLA 48 V 340 AH Battery		No.	1		
7.2	VRLA 48 V 425 AH Battery		No.	1		
7.3	VRLA 48 V 450 AH Battery		No.	1		
7.4	VRLA 48 V 750 AH Battery		No.	1		
7.5	VRLA 48 V 1530 AH Battery		No.	1		
10	Microprocessor based UPS					
10.1	3 KVA along with battery bank of 5hrs. Backup		No.	16		
10.1.1	Installation Accessories (Cables etc. as required for complete installation)		No.	16		
10.1.2	Spares for 5 years (complete breakup to be provided)		Lot	1		
10.2	25 KVA along with battery bank of 5hrs. Backup		No.	3		
10.2.1	Installation Accessories		No.	3		
10.2.2	Spares for 5 years (complete breakup to be provided)		Lot	1		
	OPTIONAL					
1	10 KVA along with battery bank of 5hrs. Backup		No.	1		
1.1	Installation Accessories		No.	1		
1.2	Spares for 5 years (complete breakup to be provided)		Lot	1		
2	25 KVA (1+1 configuration) along with battery bank of 5hrs. Backup		No.	1		
2.1	Installation Accessories		No.	1		
2.2	Spares for 5 years (complete breakup to be provided)		Lot	1		
	Services					
	Cost of Expert Engineer at Sierra Leone on per man day basis					
Grand Total Amount Ex – works (In INR)						
Freight up to TCIL Stores in Free Town, Sierra Lone (In INR)						
Insurance up to TCIL Stores in Free Town, Sierra Lone (In INR)						
Total Amount CIF Free Town, Sierra Lone basis (In INR)						

Note:

1. For Supplies outside India, TCIL will provide Form 'H', if there is interstate sale. In that case CST Shall be 'NIL'.
2. Excise Duty is not applicable on export. However, it will be the responsibility of the Supplier to execute bond/documents with Excise Department for release of goods without payment of Excise Duty.
3. Evaluation of bid will be carried out on the basis of total CIF Price, Free Town, Sierra Lone basis

- END OF SECTION 5 -

SECTION – 6

Tender No.: TCIL/15/1185/1/10-MM/26E

30.08.2010

TECHNICAL SPECIFICATIONS OF DC POWER SUPPLY SYSTEM COMPRISING OF RECTIFIER, BATTERIES AND UPS

GENERAL:

- a. The DC Power Supply System (Rectifier) shall be used for telecommunication equipment in Republic of Sierra Leone, West Africa for Sierra Leone Telecommunications Company Ltd.. The telecom equipment shall operate from a DC power supply system comprising of a rectifier and battery system, float charging a bank of storage batteries capable of supporting the required minimum autonomous operation time of five hours in the event of a mains supply outage. Offered system shall have the capability of charging battery without adding any extra hardware.
- b. The power supply system shall be modular power supply system for use with telecommunications load at nominal -48 VDC. The system shall be capable to provide a high quality (smooth) DC power supply and have a capability to automatically charge the battery.
- c. Construction : The modules, alarm and control module, AC and DC distribution and battery connection shall be housed in one rack. The rack shall have suitable ventilating arrangement.

The components of the rectifier shall be labeled. The description of the components should be consistent with what is described in the manual supplied.

The cabling within the rectifier shall be labeled with cable markers.

- d. All installation material like Power & Earth cables , nuts & bolts , cable glands, PVC ducts etc. required for complete installation , commissioning & operation of the Power plant shall be supplied by the bidder
- e. Quality Assurance : It is the responsibility of the manufacturer to establish quality assurance by means of quality control procedure , which will ensure that the product will meet the requirements of these specifications.

The manufacturer will be required to maintain a quality system that conforms to the requirement of ISO 9000 or latest.
- f. Any item not mentioned in the BOQ but required for installation , commissioning & operation of Power Plant shall be indicated and quoted by the bidder.
- g. Inspection: TCIL shall appoint an inspecting officer to carry out pre-delivery tests at the manufacturer works
- h. Bids received without compliance statement and all supporting technical brochures / literature shall be rejected.
- i. Make & Model No. of Offered Product / items to be specified by bidders along with technical parameters.

DC Power Supply System shall comprise the Following:

- (i) This system should have inbuilt intra-cabinet microprocessor controlled, intelligent, modular rectifier banks.
- (ii) Associated equipment and power cable

Batteries and rectifiers will be so dimensioned and constructed so as to allow the easy expansion of telecom equipment in the telecom shelters by adding more batteries and rectifiers.

It shall be possible to expand the system by adding rectifiers and cabinets according to requirements up to the specified ultimate capacity.

Rectifier and Charger

- The rectifier shall have the following Charging modes :

Float

Equalize

- . The rectifier shall have the following features

Auto float to boost change

- a. Boost to float 3% of Rated Ah Capacity in Amps(Settable)
- b. Float to Boost 5% of Rated Ah Capacity in Amps(Settable)
- c. Boost Voltage shall be field settable
- d. Float voltage shall be field settable.

- Input Characteristics

Input voltage to charger : 90-270VAC , 50 Hz

Factor : 0.98 lag at full load

- Output Characteristics

Nominal output voltage : -48 Volts

Output voltage range : 40-60V. Should have provisions for variable voltage settings according to the battery requirements.

Regulation : < ± 1 % no load to full load

Output power rating : 50 Amps SMPS Module

- Control panel and alarm

The control panel and alarm shall comprise the following:

LCD Display of output voltage and current.

Adjustment of charge mode.

Adjustment of charge voltage and battery charge current limit.

Audible and visible alarms for battery low voltage (adjustable), AC mains and charge failures

The system shall have remote health monitoring feature through the potential free relay contacts. A minimum of 8 alarms shall be extendable.

- Rectifier and charger redundancy :

THE TOTAL NUMBER OF RECTIFIERS SHALL BE ABLE TO FEED THE TOTAL PEAK HOUR LOAD AND BATTERY CHARGING SIMULTANEOUSLY BESIDES TAKING ACCOUNT OF REDUNDANCY.

The proposed rectifier shall be the modular designed with N+1 redundancy.

- Protection :

AC input over/under voltage automatic shutdown, AC input and two level LVD requirements at DC side, Output short circuit protection, Surge protection, Radio interference suppresser, etc.

- Metering :

System should be built with Microprocessor based controller with suitable for measuring DC & AC Voltages, currents other measurements

- Remote Management Function :The rectifier system shall be equipped with supervision unit which allows the user to remotely configure and monitor the power system via RS-232, RJ-45 interface for at least charge mode, DC output current and voltage, display system status and alarms.

The bidders are required to quote for the supply of all associated installation material like cables (power and earthing) , AC & DC Distribution boards including MCB's & protection devices.

TECHNICAL SPECIFICATIONS OF BATTERY

Battery:

Battery type: Shall be Stationary Sealed Lead Acid VRLA type. 48V, (2V cell) conforming to IEC 60896-21/22:2004 standards.

Bidder to provide the battery technical details.

This specification defines minimum construction, performance and environmental requirements for Lead Acid VRLA batteries to be used as standby power for telecommunication applications.

Design and Construction Requirements:

Design Consideration:

1. The VRLA cell containers and covers shall be constructed of PPCP component materials that shall have good strength & durability and fire resistant, shall have a minimum oxygen index of 28%, and shall be rated 94V-O in accordance with UL testing for flammability. The design shall have UL approval.
2. Each cell cover shall be provided with terminal posts identification and valve regulated self re-sealing gas vents. The method of bonding the cover to the container shall provide a strong, leak proof seal for the required life the battery.
3. When assembled, the terminal posts, covers, and associated seals shall be constructed to prevent leakage or creepage of electrolyte or gas between terminal posts, vent plugs and the cover.
4. The terminal post design shall be provided with threaded copper inserts suitable for bolted connections and better conductivity.
5. The inter cell connectors shall be of tin plated copper with suitable cross-section.
6. Each cell shall be equipped with a flame arrester to diffuse the hydrogen gas.
7. Each cell should be constructed using flat type positive electrodes and negative electrodes having 99.99% purity lead and permissive lead alloys to ensure low internal resistance of <1% per week and maintenance free characteristics like no topping up through its life and the plate design shall be suitable to meet float and cycling requirements.
8. AGM type separators with high compression shall be used between the electrodes and shall maximize recombination of hydrogen and oxygen during charging process to minimize thermal runaway.

9. The battery shall be with a design float life of 20 years at 27°C and cyclic life of 2000 cycles at 50% DOD.

Installation Considerations:

1. The battery shall be of modular design with the cells installed in acid resistant and self-stackable M.S. trays, the battery string and the battery modules/ cells should be positioned such that they are easily accessible for inspection, replacement and necessary tests. The steel parts shall be painted with an epoxy system which is resistant to the electrolyte.
2. The battery shall be of modular design with the cells installed in acid resistant and self-stackable M.S. trays, the battery string and the battery modules/ cells should be positioned such that they are easily accessible for inspection, replacement and necessary tests. The steel parts shall be painted with an epoxy system which is resistant to the electrolyte.
3. Ventilation: Battery area shall have adequate ventilation either by a natural or mechanical ventilation system, to prevent accumulation of any gases.
4. The rectifier system and main power distribution center should be as close as practical to the battery string. The cables between the battery and the rectifier and main power distribution center shall have copper cables of low internal resistance.

Electrical Requirements:

1. The rated capacity of the battery, when measured at ambient temperature of 27°C, shall be adequate to provide back up for 05 hours. The end voltage of 1.75V per cell after being charged per the manufacturer's recommendations
2. Each battery received from the supplier shall have a user verifiable capacity of not less than 100% of its rated capacity when discharged to 1.75 volt per cell at 27°C after being charged as required by the manufacturer's instructions.
3. The battery string shall be considered recharged after 24 hours at the manufacturer's recommended float and boost voltages and with available charge current of not less than 15 amperes per 100 Ah of the rated battery capacity.
4. The 24-hour recharge efficiency of a float-charged battery shall be at least 90% at 27°C through the life of the battery.

5. An external short circuit caused by a conductive object across the terminal of the battery shall not lead to a fire or an explosion of the battery.
6. The battery strings shall provide at least eight repetitive 100% depth of charge- discharge cycles before capacity degrades to 80%. This capacity loss shall be of temporary nature. Capacity shall be recovered to 100% after a reconditioning charge as recommended by the battery manufacturer.
7. The design life of a battery string shall be at least 20 years at 27°C. Battery life shall be reduced by 20% for each battery temperature rise of 10°C.
8. Battery strings shall be shipped in charged state. The batteries should be capable of storage in this state without causing damage to its internal structure or its chemistry and life and or performance for a period of 6months and should be capable of storing for a further period by providing a charge to the battery as per the manufacturer's recommendation.
9. Battery strings shall not exhibit any thermal runaway condition throughout its rated life when operated within manufacturer specified float voltage and temperature limits.
10. The battery string shall be compatible to work with international standards 48V telecom rectifiers having the battery manufacturer's recommended voltage and current settings.

Environmental Requirements

1. The battery strings shall maintain proper operation and 99% reliability when operated between a temperature range of -20°C to 50°C. The battery shall survive a short term exposure to -50°C to 70°C.
2. The battery shall remain operational in a relative humidity of 5% to 85%.
3. The battery string shall be qualified to withstand seismic shock of zone 4 as described in Uniform building code. Battery module shall remain operational after being subjected to a vibration and shock level during transportation.

Quality Requirements

1. The batteries shall be from reputed manufacturers having ISO:9001 and ISO:14001 certified manufacturing facilities.

Technical Specifications for Online Uninterruptible Power Supply (UPS)

General:

The Bidder shall provide UPS for running Telecommunication system to be used in Republic of Sierra Leone, West Africa for Sierra Leone telecommunications Company Ltd. , .. It is going to be installed between main supply and telecom equipment. During an electric power failure , the unit employs its internal maintenance free battery to supply continuous power for as long as the battery is capable.

UPS System must meet the following specifications and should be High Frequency Transformer less Microprocessor based technology using IGBTs and in dual configuration

1. Distribution, Controls & Alarms:

1a. Controls & Alarms

The UPS should offer Audio Visual alarms for all critical parameters such as Power Failure, UPS on battery, Under Voltage/ Over Voltage, low battery, etc. – UPS should have RS232 communication port and also SNMP compatibility for remote online monitoring of the critical parameters.

1b. Distribution

UPS should have multiple out put sockets on the back panel in case of Ratings upto 3 kVA. Incase of 25kVA single output should be available for connection to the users desired distribution board.

2. Battery:

2(a) The Batteries should be 12V SMF of suitable AH rating with 5 hrs back time to be offered.

2(b) UPS should offer protection from deep discharge and over charging of the batteries. The battery bank should have DC circuit breaker for protection. Charging discharging should meet the battery manufacturers guideline. SMF batteries of reputed manufacturer like Exide, Global Yuasa, PowerPlus, Amaraja, Base Corporation only will be acceptable.

3. Lightening & Surge protection : The UPS system shall be adequately protected against lightening & surge at the input as given

Up to 3 KVA : Protection shall be provided with a two pin GD tube in TT configuration backed by proper rating GI/GG type fuse.

Protection shall consist of MOV backed by a suitable rated PTC also in TT configuration.

Higher than 3 KVA : Protection against lightning electromagnetic impulse (LEMP) & other high surge, shall be provided at the distribution panel for the UPS system. This protection has to be supplied by the UPS vendor as part of UPS system in a separate enclosure with clear instruction of installation.

Protection against low voltage surges shall be provided at the UPS level. This protection shall be equipped with thermal disconnection and potential free contact for arrestor (s) connected between live and neutral .

Specifications of 3KVA UPS

<u>Ser No</u>	<u>Features</u>	<u>3 KVA</u>
1	Output Parameters	
	Output Power Capacity	2100 Watts / 3000VA
	Power Factor	0.95 to 0.99
	Nominal Output Voltage	230V +/- 1%
	Peak Efficiency	> 87%
	Output Frequency	50/60 Hz
	Output Voltage Distortion	Less than 3%
	Crest Factor	> 3:1
	Wave Type	Sine Wave
	Topology	Online Double Conversion
2	Input Parameters	
	Nominal Input Voltage	230V
	Input Frequency	50/60 Hz +/- 5 Hz (auto sensing)
	Input voltage range for main operations	160 - 280V
3	Communications & Management	
	Interface Port(s)	RS 232 Server & Client
	Available SmartSlot™ Interface Quantity	1
	Remote Monitoring	Web Based
4	General	
	Control panel	LED display with load and battery bar-graphs and On Line : On Battery : Replace Battery : Overload and Bypass Indicators
	Audible Alarm	(a) low battery (b) overload continuous tone alarm (c) Mains Failure (d) Over Temperature (e) UPS failure
	Emergency Power Off	Yes
	Cold Start	UPS should start even without mains
5	Battery Parameter	
	Battery Type	Maintenance Free Sealed Lead Acid Battery
	Back Up Time	5 Hrs.
	Capacity	Suitable capacity to meet back up time. (Capacity to be mentioned)
	Protection	Battery Low cut-off without draining current
6	Environmental	
	Operating Environment	0 - 50 °C
	Operating Relative Humidity	0 - 95%
	Audible noise at 1 meter from surface of unit	< 45 dB
7	ISO	ISO 9001

SPECIFICATIONS OF 25 KVA UPS

Ser No	Features	25 KVA
1	Output Parameters	
	Output Power Capacity	20 kW / 25 kVA
	Load Power Factor	0.8 lagging
	Nominal Output Voltage	230V
	Peak Efficiency	> 90%
	Output Frequency	50 Hz + /- 0.1%
	Output Voltage Distortion	Less than 3%
	Crest Factor	> 3:1
	Wave Type	Pure Sine Wave
	Topology	Online Double Conversion
2	Input	
	Nominal Input Voltage	400V 3PH
	Input Frequency	45 – 55 Hz (auto sensing)
	Input voltage range for main operations	304 – 477V
3	Communications & Management	
	Interface Port(s)	RS 232 Server and Client
	Available SmartSlot™ Interface Quantity	Pre-Installed
	Remote Monitoring	Web Based
4	General	
	Control panel	Multi-function LCD status and control console
	Audible Alarm	(a) low battery (b) overload continuous tone alarm (c) Mains Failure (d) Over Temperature (e) UPS failure
	Emergency Power Off	Yes
	Cold Start	UPS should start even without mains
5	Battery Parameter	
	Battery Type	Maintenance Free Sealed Lead Acid Battery
	Back Up Time	5 Hrs.
	Capacity	Suitable capacity to meet back up time. (Capacity to be mentioned)
	Protection	Battery Low cut-off without draining current
6	Environmental	
	Operating Environment	0 - 40 °C
	Operating Relative Humidity	0 - 95%
	Audible noise at 1 meter from surface of unit	< 45 dB
7	ISO	ISO 9001

- END OF SECTION 6 -

SECTION - 7

Tender No.: TCIL/15/1185/1/10-MM/26E

30.08.2010

BID BOND/(EMD) FORMAT

Whereas (hereinafter called “the Bidder”) has submitted its bid dated For the supply of Vide Tender No. dated KNOW ALL MEN by these presents that WE OF Having our registered office at (hereinafter called “the Bank”) are bound unto Telecommunications Consultants India Limited (hereinafter called “the Purchaser”) in the sum of Rs. for which payment will and truly to be made of the said Purchaser, the Bank binds itself, its successors and assigns by these present.

THE CONDITIONS of the obligation are:

1. If the Bidder withdraws his 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 his bid by the Purchaser during the period of bid validity
 - (a) **fails or refuses to execute the Contract, if required; or**
 - (b) **fails or refuses to furnish the Performance Security, in accordance with the instructions to Bidders.**

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 in its demand, the purchaser will note that the 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 upto 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 specified date/dates.

Signature of the Bank Authority.

Name

Signed in Capacity of

Name & Signature of witness

Full address of Branch

Address of witness

Tel No. of Branch

Fax No. of Branch

- END OF SECTION 7 -

SECTION- 8

Tender No.: TCIL/15/1185/1/10-MM/26E

30.08.2010

PERFORMANCE BANK GUARANTEE (FORMAT)

**M/s Telecommunications Consultants India Ltd.,
TCIL Bhawan, Greater Kailash-I
New Delhi – 110 048 (INDIA)**

(With due stamp duty if applicable)

OUR LETTER OF GUARANTEE No. : _____

In consideration of TELECOMMUNICATIONS CONSULTANTS INDIA LIMITED, having its office at TCIL Bhawan, Greater Kailash-I, New Delhi – 110 048 (INDIA) (hereinafter referred to as “TCIL” which expression shall unless repugnant to the content or meaning thereof include all its successors, administrators and executors) and having entered into an agreement dated _____/issued Purchase Order No. TCIL/15/894/1/08-MM/35E_____ dated _____ with/on M/s. _____ (hereinafter referred to as “The Supplier” which expression unless repugnant to the content or meaning thereof, shall include all the successors, administrators, and executors).

WHEREAS the Supplier having unequivocally accepted to supply the materials as per terms and conditions given in the Agreement dated _____ /Purchase Order No. _____ dated _____ and TCIL having agreed that the Supplier shall furnish to TCIL a Performance Guarantee for the faithful performance of the entire contract, to the extent of 10% (ten percent) of the value of the Purchase Order i.e. for _____.

We, _____ (“The Bank”) which shall include OUR successors, administrators and executors herewith establish an irrevocable Letter of Guarantee No. _____ in your favour for account of _____ (The Supplier) in cover of performance guarantee in accordance with the terms and conditions of the Agreement/Purchase Order.

Hereby, we undertake to pay upto but not exceeding _____ (say _____ only) upon receipt by us of your first written demand accompanied by your declaration stating that the amount claimed is due by reason of the Supplier having failed to perform the Agreement and despite any contestation on the part of above named Supplier.

This Letter of Guarantee will expire on _____ including 30 days of claim period and any claims made hereunder must be received by us on or before expiry date after which date this Letter of Guarantee will become of no effect whatsoever whether returned to us or not.

**Authorized Signature
Manager
Seal of Bank**

- END OF SECTION 8 -