

# OFFICE OF THE CHIEF ENGINEER/TS, SHAKTI SADAN, THE MALL, PSTCL, PATIALA-147001 COMMUNICATION DESIGN, T&S CELL -VIII,

TELEPHONES: Dy. CE/TS. DESIGN – 2207774 (DIRECT)

Addl. SE/ T&S-VIII - 2217703-08 EXTN - 351

FAX NO. 0175-2207774, 2301536

E Mail: <a href="mailto:se-trd@pstcl.org">se-trd@pstcl.org</a>, <a href="mailto:ase-ts8@pstcl.org">ase-ts8@pstcl.org</a>

# **SPECIFICATION NO: STQ-8014/2014**

# SPECIFICATION FOR DESIGN, MANUFACTURE, TESTING AND DELIVERY OF 48 VOLTS DC BATTERY CHARGERS

#### **DUE DATES & TIME:**

I) FOR SALE OF TENDER SPECIFICATION : 23.07.2014 upto 11.00 Hrs.

II) FOR RECEIPT OF TENDERS : 25.07.2014 upto 11.00 Hrs.

III) OPENING OF TENDERS : 25.07.2014 at 11.45 Hrs.

Cost of tender documents: Rs 1000/- (Rs. One Thousand only)

### NOTE:

1) Please see clause 22 of 'Important Note for Guidance of Bidders' regarding payment of tender document cost.

#### **INDEX**

#### Item/No.

#### **PARTICULARS**

### Part-1: GENERAL AND COMMERCIAL REQUIREMENTS

- 1. Important Note for Guidance of Bidders
- 2. Check List of Documents
- 3 General Instructions to be observed by bidders
- 4. Prices
- 5 MODVAT
- 6 Completeness of tender
- 7 Validity
- 8 Terms of payment
- 9 Delivery Schedule
- 10 Penalty/Damages for delay in delivery
- 11 Extension in Delivery Period
- 12 Negligence & Default
- 13 Force Majeure
- 14 Earnest Money
- 15 Intimation to Chief Accounts officer (CPC) and Consignee
- 16 Sales Tax & Duties
- 17 Insurance
- 18 Warranty
- 19 Changes
- 20 Octroi Charges
- 21 Despatch Instructions
- 22 Inspection & Test
- 23 Civil Suit
- 24 Arbitration
- 25 Constitution, Experience and Financial standing
- 26 Information regarding list of Bankers
- 27 Security Deposit
- 28 Cancellation
- 29 Contract Agreement
- 30 Order Preference
- Fake Inspection Call
- 32 Works Appraisal
- 33 Submission of Documents for Expeditious Payments

#### Part 2 TECHNICAL SPECIFICATION

- 1. Scope
- 2. Conditions for Transportation Storage & Operation
- 3. Standards
- 4. Requirement
- 5. General Constructional Features
- 6. Terminal Blocks
- 7. Sign Writing, Marking and Labeling
- 8. Cabinet
- 9. Painting
- 10. Cooling Arrangement
- 11. Electrical Description
- 12. Delivery & Despatch
- 13. Responsiveness and Acceptance of Specification/Tender

# **Part-3 Annexures**

I	Annexure-A (Schedule of Requirement and Delivery)
II	Annexure-B (Proforma for Appraisal of Firm)
III	Annexure-C (Schedule of General Information)
IV	Annexure-D (Undertaking for non payment of commission etc.)
V	Annexure-E (General Commercial Particulars)
VI	Annexure-F Schedule of Financial & Technical Resources of the tenderer
VII	Annexure-G (Price Schedule)
VIII	Annexure-H (Guaranteed technical Parameters)
IX	Annexure-I (Schedule of deviations)
X	Annexure-J (Under taking Form for order preference)
XI	Annexure-K (Contract Agreement form)
ΧII	Anneyure-I (Bank Guarantee Form)

#### PART-1

# GENERAL AND COMMERCIAL REQUIREMENTS IMPORTANT NOTES FOR GUIDANCE OF BIDDERS

- 1. The detailed breakup of prices as desired in the price schedule (ANNEXURE-G) must invariably be filled in the first instance while submitting the tender. Information as per other Annexures must also be supplied. In the absence of above, the bid is liable to be rejected.
- 2. The bidders will have to give, undertaking that they will not pay commission etc. or engage any commission agent or liaison agent for dealing with the PSTCL in any matter including purchase of specification etc. This undertaking is required to be supplied along with the offer.
- 3. To be technically suitable the bidders should have manufactured and delivered the Battery Chargers to an Electricity Board/ Utility and performance certificates issued by two end users are to be submitted with the tender documents. Though no firm will be refused tender documents but technical qualification conditions and performance criteria shall be considered for the purpose of technical evaluation.
- 4. Quantity mentioned in the NIT could be ordered on more than one supplier.
- 5. The firms indicating NIL or concessional rate of CST/VAT in their bids will have to absorb the CST/VAT up to full rate applicable at the time of bidding. The firms who do not agree to this stipulation or indicate CST/VAT as extra without indicating the applicable rate shall be loaded with maximum rate of CST/VAT for evaluation purpose.
- 6. The firms indicating NIL or concessional rate of ED in their bids will have to absorb the ED up to full rate applicable at the time of bidding. The firms who do not agree to this stipulation or indicate ED as extra without indicating the applicable rate shall be loaded with maximum rate of Duty for evaluation purpose.
- 7. The documents submitted should be wholly typed or printed. There should be no erasure/cutting/over-writing. However, any unavoidable cutting/over writing/correction made should be duly signed and authenticated.
- 8. The material offered shall be entirely as per enclosed Technical specification and General terms & conditions. In case of any deviation, the bid shall be rejected without entertaining any correspondence.
- 9. Conditional /Non conforming bids shall not be accepted.
- 10. Bidders should submit their offer in unambiguous wording failing which PSTCL's interpretation will be final.
- 11. All the Annexures to the specification and requisite documents as per requirement of the specification must be duly filled/submitted in the very first instance else the bid shall be rejected.
- 12. Documents to be furnished must bear signatures of a person authorized as per constitution and composition of firm. Authenticating documents to prove authority of signatory (Legal Power of Attorney in favour of signatory) must be attached with the Bid.

- 13. Validity of the offers must be for minimum 120 days from the date of opening of Bids. The bidders revising their offer or withdrawing the same within validity period after opening of bids are liable to be rejected/ black listed.
- 14. The bidder shall supply a list of two authorized person(s) with his/their signatures duly attested on the firm's pad so that he/they may represent on behalf of the firm and participate in the opening process of the bids and the same should be with the authorized person(s), otherwise he/they will not be allowed to participate in the opening of tender.
- 15. a) Earnest Money may be deposited through a Demand Draft drawn in favour of Accounts Officer / CPC, PSTCL, Patiala.

For the instant tender enquiry the required EMD shall be as follows:

S.	Description	Max. EMD, for	Min. EMD, for
No.		100% qty.	25% qty.
1	48 Volt/20, 40, 60 & 80 Amps. Battery	Rs. 38,000/-	Rs. 9,500/-
	Chargers		

# For details, clause no. 14 of Part-I of the specification may be seen.

- b) In case of Permanent Earnest Money Deposit (PEMD) of Rs.10.0 Lac (Rs. Ten Lacs) in the name of Chief Engineer /TS, copy of a valid certificate to this effect, issued by the Accounts Officer/CPC, PSTCL, Patiala during three months immediately preceding the due date for tender opening and showing the Serial No. / Account no. allotted in the PEMD register, shall be submitted with the bid documents.
- 16. Those firms will not be considered where there is 25% or more default for 9 months or any quantity for more than 15 months in making supplies against earlier purchase orders placed on them.
- 17. Those firms will not be considered with whom business has been suspended, black listed firms and debarred (including their sister concerns).
- 18. Offer of the firms who quote for less than 25% of the NIT quantity are liable to be rejected.
- 19. PSTCL reserves the right to increase or decrease the quantity of material or to reject any or all the bids without assigning any reasons. PSTCL will not be held responsible for this and will not pay any expenses or losses that may be incurred by the bidders in the preparation of the bids.
- 20. The cost of Tender Specifications shall be submitted by the Bidders in form of demand draft in favour of AO/CPC (T), PSTCL, Patiala, upto the last date of tender submission (refer due dates on the cover page of the specification / NIT), in the office of Dy. Chief Engineer/TS(D),Main Cell, Shakti Sadan, PSTCL. Bids of the firms, which do not submit the Demand Draft towards cost of specifications as mentioned above, shall not be considered. The demand draft towards cost of specifications shall be submitted in an envelope clearly super-scribed with the words "Cost of Specification against tender enquiry No. STO-8014".
- 21. The prospective bidders are requested to visit the PSTCL website periodically even after down-loading the specification to check for corrigendum issued, if an

# 2. <u>CHECK LIST OF DOCUMENTS</u>

It is mandatory for the bidders to submit the following documents else the bid shall be considered unresponsive and hence rejected:

Sr.	DETAILS	PART	REMARKS
No	2211120		112111111111111111111111111111111111111
1	Cost of Specification	Part-I	Submit original DD/ valid PEMD certificate in <u>separate</u> envelopes in the o/o Dy. CE/TS(D), Main Cell, PSTCL,
2	EMD / PEMD		Patiala before the last date & of receipt of Tenders. (see relevant clauses of Important Notes for Guidance of Bidders)
3	Annexure –A (Schedule of Delivery & Requirement)		
4	Annexure –B (Appraisal Form )		
5	Annexure –C (Schedule of General Information)		
6	Annexure –D (Undertaking for non-payment of		
	Commission etc.)		
7	Annexure –E (General Commercial Particulars)		SUBMIT COPIES
8	Annexure –F (Schedule of Financial & Technical		
	Resources)	Part-II	
9	Annexure –H ( Guaranteed technical Parameters)	rart-11	
10	Annexure –I (Schedule of Deviations)		
11	Income Tax Returns of firm as well as Directors/		
12	Partners/ Proprietor of the firm for the latest 3 years.  Duly audited annual financial reports or turnover figures	-	
12	certified by Charted Accountant for latest three years.		
13	Legally valid Authorization signed by Chairman & other	1	
	Directors of the firm in case of Limited Companies & by		
	all partners in case of partnership firms authorizing the		
	signatory to sign the tender & deal with PSTCL.		
14	Memorandum & Article of Association for public/	1	
	private Ltd firm, Partnership deed for Partnership firms		
	and supporting document for proprietary firm		
15	Copies of PO/performance execution certificates issued		
	by other state utilities		
16	Copies of Type Tests conducted by		
	government/recognized test house as per Part-2 of the		
1 -	specifications.	_	
17	Any other supporting documents enclosed mentioning		
4.0	the purpose	_	
18	Annexure-G	Part-	Submit in separate
10	Price Schedule Proforma	III	sealed envelope
19	Annexure-J		Submit Original after
	Performa for Order Preference		opening of Part-III

# 3. GENERAL INSTRUCTIONS TO BE OBSERVED BY BIDDERS.

- **A.** All Bidders must carefully observe the following instructions. Quotations/ Tenders not strictly in accordance with these instructions will be liable to be rejected:
- i) The bid must be complete in all respects. Every clause should be studied carefully in order to ensure submission of a complete and comprehensive tender. Failure to comply with any of these instructions or to offer brief explanation for non compliance is likely to render effective comparison of the tenders as a whole impossible and may lead to rejection of an otherwise competitively lowest offer.
- ii) The bid shall comprise of three parts i.e. Part-I, Part-II & Part-III as mentioned below:
  - A) Part-I Earnest Money
  - B) Part-II Technical/Commercial Bids
  - C) Part-III Price Bids.
  - a) Part-I Earnest Money: The first part will consist of earnest money deposit.
  - b) Part-II- Technical /Commercial bids: The second part will consist of technical specification, schedule of deliveries and all other terms and conditions, status of quoted prices i.e. firm or variable, the base date & P.V. formula if the quoted prices are variable except rates. All commercial terms including discount if any, Excise duty, CST, VAT etc. shall be specified in the Part-II of the bid, so that any ambiguities relating to General Terms & Conditions and Technical details can be sorted out before the opening of Part-III i.e. Price Bid.

For the present Tender enquiry, only FIRM prices may be quoted.

#### Bids with variable rates shall be rejected.

c) Part-III: Price Bids: The third part will consist of the quoted prices for each item as well as other related terms like freight, insurance, ED, CST/VAT and other incidental charges relevant to the price. No correspondence/ clarifications shall be entertained after the opening of Part-III.

The following procedure will be adopted for the opening of bids:

Part-I (earnest money) shall be opened/checked first and if the earnest money is found to be as per the requirement of the specifications, only then Part-II shall be opened/checked. The bids without earnest money shall be out rightly rejected.

After opening Part-II of the bids (technical/commercial), the bids will be technically & commercially evaluated by PSTCL.

Part-III of the bids (Price Bid) shall be opened/checked in case of only those firms whose part-II of the bids after evaluation is found to be conforming to the specifications. The date and time for opening Part-III of the bids will be intimated to the qualifying firms & those who fail to qualify will be intimated accordingly.

iii) The bid will be submitted as per NIT/tender Specification complete in all respects.

- iv) The PSTCL shall accept the permanent earnest money of Rs.10.0 lac Organisation wise (Chief Engineer wise). As such the bidders desirous of having permanent earnest money deposit for Transmission Systems Organisation may submit demand draft for Rs.10.0 lac drawn in favour of Accounts Officer/CPC, PSTCL, Patiala in the envelope for Earnest Money.
- v) The bidders indicating NIL or concessional rate of CST/VAT will have to absorb the CST/VAT upto full rate applicable at the time of bidding. The bidders which do not agree to this stipulation or indicate CST/VAT as extra without indicating the applicable rate shall be loaded with maximum rate of CST/VAT.
- vi) The bidders indicating NIL or concessional rate of ED in their bids will have to absorb ED upto full rate applicable at the time of bidding. The bidders who do not agree to this stipulation or indicated ED as extra without indicating the applicable rate shall be loaded with maximum rate of ED for evaluation purpose.
- vii) No conditional offers shall be acceptable.
- B) The officer inviting tenders, contracting/purchasing agency/PSTCL (here-in-after referred to as purchaser) reserves the right to modify the schedule of requirements, technical particulars and the specifications at any time and to place the order as a whole or in parts and to reject any or all the tenders received without assigning any reasons. He will not be responsible for and will not pay for expenses or losses that may be incurred by bidder in the preparation of the bid.
- C) The bidders shall submit their bids, complete in all respects, in the office of Dy. CE/TS (D), Main Cell, Shakti Sadan, The Mall, PSTCL, Patiala upto the given time of the due date as per the NIT. The bids shall be opened thereafter on the given date & time.
- D) Offers/tenders will be opened on the date and time prescribed in the N.I.T. / Enquiry in the presence of authorized representatives of Tenderers, who actually submitted the tender, if they present themselves at the time of opening of tenders. In case the date of opening of tender falls on a holiday or holiday is subsequently declared on that date, the tenders will be opened on the next working day following the holiday.

# 4 **PRICES**:

The unit rates should be quoted FOR destination at any Railway Station in Punjab/ PSTCL Railway siding wherever existing or delivery at PSTCL's Stores, through road transportation which will be treated at par with FOR destination. The tenderer quoting FOR destination rates must give the split up as ex-works prices, freight & insurance charges.

The break up of the FOR destination price should be given as under: -

a) The Ex-works rates inclusive of packing & forwarding part of production cost should be on per unit basis. The cost should indicate the complete cost of raw material, labor, packing & forwarding charges forming part of production cost. The ex-works cost should also include taxes and duties payable on raw material but should not include taxes and duties leviable on finished material (if leviable).

- b) Packing cost not forming part of production cost, handling, cartage etc., freight charges and transit risk insurance covered in FOR destination price must be shown separately.
- ii) All taxes and duties leviable on the price of finished goods as per sub clause 4(i) (a) shall be paid extra and the same should be shown separately as prevalent on the date of opening of tenders, to be paid at the rate as may be actually prevalent at the time of supply otherwise these elements shall be deemed to be included in the quoted prices and will not be extra. No taxes and duties will be payable on the element of cost quoted under sub clause-4(i) (b) above.

In addition to the break up of total price i.e. ex-works cost, ED, CST, F&I and packing the bidder should also give split up of Ex-works price. The break up to prices shall be indicated in respective Performa attached with the specification. The filling up of Performa shall be mandatory for tenders. The split up of Ex-works prices shall indicate cost of raw material, Labour component and overhead expenses. Raw material can further be divided into 3-4 parts depending on part of material.

The bidder will not be allowed to indicate overall discount on quoted price for which split up has been given. However, quantity/payment discount can be given by tenderer in the main tender (i.e. part relating to general terms & conditions). <u>Any firm offering discount on the quoted price or after the opening of tender will be out rightly rejected</u>.

- iii) In case of rates ex-works/ex-godown and for imported material, freight charge transit risk insurance, handling and clearance charges, FOB and C.I.F Commission of clearing agents at ports should also be indicated separately.
- iv) Only **FIRM** prices may be quoted. **Bids with Variable rates shall be rejected.**
- v) The rates quoted F.O.R. destination or ex-works should be in both figures and words.
- vi) All statutory variations and fresh levy of any tax/ duty will be to PSTCL's account within contractual delivery period. Statutory taxes should be paid after allowing all abatements/discounts/exemptions permissible under the relevant act.

#### **IMPORTANT:**

- a) Those firms who do not give breakup of their rates as per requirement of specification shall not be considered. Rates of E.D. & CST/VAT applicable must be indicated separately. All bidders should note that the price bids not indicating Exworks including packing and forwarding charges forming cost of production, freight and insurance charges applicable, E.D., C.S.T. or sales tax may be liable for summary rejection.
- b) VAT: The implication and %age (prevalent rate) of VAT levied on the prices may be clearly brought out.

#### 5. MODVAT/CENVAT:

The rates should be quoted after taking into account the MODVAT/CENVAT benefit accruing to the bidder, which will be retrained by him. However, the extent of MODVAT/CENVAT benefit available which has been taken into account while quoting the prices must be indicated. Any increase or decrease in this benefit due to change in policy of Govt. shall be passed on to the purchaser or borne by it.

# **6. COMPLETENESS OF TENDER**:

The tender must be complete in all respects. The tenderer in his own interest should submit complete tender, offering his comments against each clause of the specification. Incomplete tender may prove disadvantageous to the tenderer and liable to be rejected. The silence of tenderer on any terms of this specification shall be taken as acceptance of the specified terms of provision made there under. In the event of placement of order the provision will be made as per specification against which tenderer observed silence.

#### 7. VALIDITY:

The offer should be unconditionally valid for at least a period of 120 days from the date of opening of the tender. Withdrawal or modification of the offer shall not be permitted. Tenders with validity less than 120 days shall not be considered and rejected out rightly. Any bidder revising the offer within validity period is likely to be blacklisted.

#### 8. TERMS OF PAYMENT:

100% payment of the contract value pro-rata for each consignment after approval of Inspecting Authority/Test Certificate etc. alongwith 100% Sales Tax, Excise Duty and other statutory levies as per contract shall be paid within 30 days against receipted challans, subject to furnishing a Bank Guarantee of 5% of the amount valid for a period of three months after receipt of material against that consignment of complete items:

In case 5% BG towards 100% payment is not submitted in time as per P.O., 5% payment in lieu thereof shall be withheld from the presented bill. The BG for 5% amount (or the 5% amount withheld in lieu of 5% BG) shall be released on satisfactory adjustment of Goods Receipt Note to be issued by consignee within the validity period of the said B.G.

# 9. <u>DELIVERY SCHEDULE</u>:

The offer should clearly indicate monthly/quarterly schedule of deliveries, date of commencement and completion of supplies against that indicated in the NIT/Specification (refer Annexure–A) which should normally cover period of entire job of manufacture, testing, inspection and supply after acceptance and shall be reckoned from the date of despatch in case of Rail transport and receipted challan/goods receipt in case of Road transportation by goods carriers. Purchase order shall be placed strictly on the above stated understanding. Ex-stock and quicker deliveries may be some times preferred keeping in view the requirement of works.

The firm shall give FIRM delivery schedule while quoting. If the firm fails to supply the material within committed delivery schedule then it will be likely to be not considered for subsequent orders.

The purchaser reserves the right to divide the tendered quantity to have material as per specification. In case the order is placed on more than one firm, the delivery may be changed on pro-rata basis.

#### 10. PENALTY/DAMAGES FOR DELAY IN DELIVERY:

If the supplier fails to deliver the material/equipment within the stipulated delivery period of the Purchase Order/Contract, the same is liable to be rejected and if accepted, the supplier shall be liable to pay as penalty charges, a sum of 0.5% (half of one percent) of the cost of undelivered supply/incomplete equipment per month of delay or part thereof, not exceeding maximum limit of 5% of the cost of complete unit of undelivered equipment so delayed. There will be a slack of one month that will not entail any penalty and will not involve any additional financial implication. Delay beyond slack period will attract penalty for the period of delay including slack period. However there will be no penalty/liquidated, damages in respect of purchase of proprietary items.

#### 11. EXTENSION IN DELIVERY PERIOD:

If completion of supplies is likely to be delayed due to reasons beyond your control, you shall without any delay inform this office in writing of your claim for extension of time. This office on receipt of such information may agree to amend the delivery schedule as may be reasonable but without prejudice to other terms and conditions of the contract.

Any genuine delay in approval of technical details, drawing, samples, issuance of amendment to purchase order, conducting inspection and approval of test report/test certificate for allowing dispatches etc. will count towards extension of the delivery period by corresponding period other than that admissible under 'Force Majeure' conditions, if any, substantiated by the supplier, and duly accepted by the purchaser. The arrangement of required raw material such as steel/zinc is the responsibility of the supplier. Any non-availability of raw material will not be considered as a valid reason for extension in delivery period. No extension in delivery shall be granted in case of delay in payment. However, for delayed payments beyond stipulated period as per terms of payment clause, compensation shall be credited @ 0.5% of the payment so delayed, per month or part there of to be adjusted against penalties levied or leviable due to delay in deliveries under the contract.

# 12. <u>NEGLIGENCE AND DEFAULT</u>:

In case of negligence on the part of supplier/contractor to execute the order/contract with due diligence and expedition and to comply with any reasonable orders given in writing by the Purchaser in connection with the Purchase Order/Contract or any contravention in the provisions of the Purchase order/contract, the Purchaser may give 21 days notice in writing to the supplier/contractor to make good the failure or neglect or contravention and if the supplier/contractor fails to comply with the notice within time considered to be reasonable by the purchaser, he will suspend/terminate business

dealings with the supplier/contractor for a specific period apart from claiming reasonable compensation/damage, forfeiture of security etc. The action taken under this clause will be notified to all the purchasing agencies & other State Transmission Corporations/Utilities.

# **13**. **FORCE MAJEURE**:

During the pendency of the contract/purchase order, if the performance in whole/part by either party or any obligation there under, is prevented/delayed by causes arising out of any war, hostility, civil commotion, acts of the public enemy, sabotage, fire, floods, explosions, epidemics or non-availability of Government controlled raw-material under order/Instructions of Central/State Government regulations, strikes, lockouts, embargo, acts of Civil /Military authorities or any other cases beyond their reasonable control, neither of the two parties shall be made liable for loss or damages due to delay or failure to perform the contract during the currency of Force Majeure conditions, provided that the happening is notified in writing (with documentary proof) within 30 days from the date of the occurrence.

The supplies shall be resumed under the contract as soon as practicable after the happening (event) ceases to exist.

# 14. **EARNEST MONEY:**

i) In case of open and limited tenders, the bidders shall be required to submit Earnest Money at the following rates in the form of Punjab State Transmission Corporation Ltd. Cash Receipt/Bank draft alongwith the tenders: -

S.	Description	Max. EMD,	Min. EMD,
No.		for 100% qty.	for 25% qty.
1	48 Volt/20, 40, 60 & 80 Amps. Battery Chargers	Rs. 38,000/-	Rs. 9,500/-

ii) The following shall be exempted from depositing Earnest Money:

Suppliers having permanent Earnest Money of deposit Rs. 10.0 Lac with the TS organization of PSTCL. A certificate to this effect issued by the concerned Accounts Officer of the PSTCL during three month immediately preceding the due date of tender opening and showing the Serial number/Account number allotted in the Permanent Earnest Money deposit register shall be submitted by the Bidders in the envelope for Earnest Money.

Permanent earnest money deposit of Rs. 10 lac shall be deposited by the Bidder/Suppliers Organization wise with only CE/TS, PSTCL i.e. Transmission System Organization of PSTCL irrespective of the fact whether they have PEMD already deposited with other purchase organization of the PSTCL or PSTCL itself. A certificate to this effect issued by the AO/CPC, PSTCL, Patiala of the PSTCL under TS Organization during three months immediately proceeding the due date for tender opening and showing the serial Number/account Number allocated in the PEMD

Register shall be submitted by the Bidder in the envelope for Earnest Money, for seeking exemption thereof.

- iii) a) In case of tenders not accompanied by full amount of Earnest Money for the items tendered but not less than 25% of the amount due, the order/contract, shall be awarded only for part of material/equipment services limited to a value corresponding to the actual amount of Earnest Money submitted with the tenders provided the placing of such part order is otherwise feasible and is in the interest of the PSTCL otherwise such tender shall be ignored.
  - Earnest Money shall be forfeited in case of withdrawal/Modification of an offer within the validity period as required in NIT/Tender Specification after opening of tenders.
  - c) In case of successful Bidders Earnest Money shall be converted as Security deposit and shortfall, if any shall be got deposited for faithful execution of Purchase Order/Contract.
  - d) In case of tenders not accepted, the earnest money shall be refunded within 30 days of the award of order/contract to the un-successful tenderers.
  - e) Earnest Money may be deposited through a Demand draft drawn in favour of Accounts Officer/CPC, PSTCL, Patiala.

### 15. <u>INTIMATION TO CHIEF ACCOUNTS OFFICER AND CONSIGNEES:</u>

The supplier will have to intimate the probable date of dispatch followed by telegraphic advance intimation regarding the actual date of R.R. to Financial Advisor/Centralized payment Cell, Punjab State Transmission Corporation Ltd., Patiala, to enable him to arrange payment failing which demurrage/wharfage etc. will be to supplier's account. A copy of such intimation should be sent to the consignees and Chief Engineer/TS, (Communication Design), Shakti Sadan, The Mall, PSTCL, Patiala also for reference immediately.

#### 16. SALE TAX & DUTIES:

- **A) <u>VAT</u>**: The VAT as applicable if inclusive in prices shall be paid against documentary proof on submission of following certificates:-
- i) Certified that the transaction on which tax has been claimed has been/will be included in the return submitted/to be submitted to the Sales tax authorities for the assessment of the tax and the amount claimed from the PSTCL has been/shall be paid for the Sales Tax Authorities.
- ii) Certified that the goods on which tax has been charged have not been exempted under the rules made there-under and charges on account of the Sales tax on these goods are correct under the provisions of the relevant act or rules made there-under.
- iii) Certified that we shall indemnify the PSTCL in case it is found at a later stage, that wrong or incorrect payment had been made on account of tax paid by us.
- iv) Certified that we are registered dealer & our Regn. No. is \_\_\_\_\_\_.

### **B)** Central Sales Tax:

The PSTCL has been registered as a dealer under the Central Sales Tax Act.

- i) When the Central Sales Tax is to be paid by the PSTCL, a declaration certificate in Form 'C' will be issued by the Chief Controller Finance/Centralized Payment Cell, PSTCL, Patiala on receipt of material.
- ii) When the tax is to be paid by the Supplier, a declaration certificate in Form will be issued by the Chief Controller Finance/ Centralized Payment Cell, PSTCL, Patiala, subject to submission of the following certificates:
- a) Certified that the transaction on which tax has been claimed has been/will be included in the return submitted/to be submitted to the Sales Tax Authorities for assessment of the sales tax and the amount claimed from PSTCL has been paid to the sales tax authorities.
- b) Certified that the goods, on which Sales Tax has been charged have not been exempted under Central Sales Tax Act or the Rules made thereunder and the charges on account of the sale tax on these goods, are correct under the provision of the relevant Act or rules made thereunder.
- c) Certified that we shall indemnify the PSTCL in case it is found at a later stage that wrong/incorrect payment had been made on account of Sales Tax paid by us.
- d) Certified that we are registered dealers under the Central State Sales Tax Act and our Registration No. is \_\_\_\_\_\_.
- e) Certified that payment has been made under protest. The bills for the Sales Tax and insurance charges, if any, should be submitted separately.
- iii) The firm indicating NIL or Concessional rate of CST will have to absorb the CST upto full rate applicable at the time of tendering. Firm who do not agree to this stipulation or indicate CST as extra without indicating the applicable rate shall be loaded with maximum rate for evaluation purpose.

#### C) <u>Central Excise duty</u>:

- a) Central Excise Duty, if and where-ever applicable and quoted to be charged extra will be payable at the rate prevailing during the scheduled delivery, subject to the production of the following three certificates by the Manager/ Senior administrative officer of the firm: -
- i) Certified that the transaction on which the Central Excise Duty is claimed has been/shall be included in the return submitted/to be submitted to the Central Excise Authorities and the amount claimed from the PSTCL has been/shall be paid to Central Excise Authorities.
- ii) Certified that the goods on which ED has been charged have not been exempted under the Central Excise Act of the rules there under and the amount charged on account of ED on these goods is not additional than what is payable under the provisions of relevant act or the rules made there-under.
- iii) Certified that we shall indemnify the PSTCL in case it is found at a later stage that wrong or incorrect payment has been recovered on A/C of ED paid by us.

Further in case, an exemption for ED paid is agreed by Excise Authorities and ED amount is refunded to us, then equal amount shall be paid by us to the PSTCL.

In case the Excise Duty is applicable and is require to be paid extra as referred to in (a) above, the bidder should clearly indicate the present rate (in percent) applicable to their company.

The maximum rate (in percent) upto which the E.D. may be come leviable/payable under the prevailing Rules & Regulations applicable to their company should also be clearly indicated in their tender.

In case the Excise Duty is applicable/payable, necessary certificate of Excise Duty/Excise Gate Pass, duly authenticated by the authorized representative of Central Excise Department, shall however be furnished by the supplier alongwith each consignment. The supplier should therefore clearly indicate in their tender that whether Excise Duty Gate Passes/Certificates shall be furnished by them or not.

The firms indicating nil or concessional rate of Excise Duty in their tender will have to absorb E.D. upto full rate applicable at the time of tendering. The firms who do not agree to this stipulation or indicating E.D. as extra without indicating the applicable rate shall be loaded with Maximum rate of duty for evaluation purposes.

### 17. INSURANCE:

- i) The rates are required to be quoted on FOR destination basis and it is the responsibility of the supplier to deliver the goods in sound condition FOR destination and for that purpose the supplier may at his option insure the material against all risks at his own cost during transit for full delivered value of the material upto destination. All works in connection with making and settling of claims, if any, with Railway Authorities and or Insurance Company shall be carried out by the Contractor for which no extra payment shall be made by the PSTCL. However, necessary assistance required in connection with making and settling of such claims, if any, shall be provided by the consignees.
- ii) All damages and/or shortages during transit as covered by the insurance shall be made good immediately on receipt of such information from the consignees without waiting for settlement of claim. However, in case of apparent damages and/or shortages, the consignee shall obtain the loss/damage certificate from the Road Transport/Railway authority and send the same to the Contractors within a period of thirty days from the date of receipt of material. The Supplier/Contractors shall submit a certificate with each bill to the effect that the material has been duly insured.
- iii) The consignees shall report losses and damages to the firm within 30 days of arrival of the equipment at the site. It will, however, be supplier's responsibility to prefer timely claims on the insurance underwriters and to arrange replacement thereof to the consignees.
- iv) The suppliers shall be wholly responsible for the loss, shortages, and damages etc. during transit. Such shortages and damages etc. will have to be replaced/repaired by

- supplier/ contractor free of cost immediately without waiting for maturing of the Supplier's/Contractor's claims with the Road Transport/Railway Authorities.
- v) In case replacement/repair of defective material is not carried out within six months of intimation of damages, supplier shall have to pay interest at the rate of 12% per annum on the advance payments made by the Punjab State Transmission Corporation Ltd. from the date of its payment upto the date of the re-commissioning of the equipment after replacement/repair or to the date the default is made good.
- vi) In case replacement/repair of short/defective material is not made good within one month from the date of receipt of intimation from the consignee in this regard, the purchaser shall have to the option to get short/damaged material fabricated from some other source and in that case, the recovery at double the cost provided in the P.O./ Specification shall be made from supplier.

# 18. **WARRANTY**:

The supplier/Contractor shall be responsible to replace free of cost, with no transportation and insurance expenses to the purchaser upto the destination of material/equipment, the whole or any part of the material, which under normal and proper use and maintenance, proves defective in material or workmanship within 12 months from the date it is taken over by the purchaser, or 18 months from the date of despatch in respect of indigenous material, 24 months from date of shipment of imported material, whichever expires earlier, provided the Purchaser gives prompt written notice of such defects to the supplier/contractor.

Such replacement shall be effected by the Supplier/Contractor, within a reasonable time not exceeding 6 months of the intimation of defects. Supplier's /Contractor's responsibility arising out of supply of material or its use whether on warranties or otherwise shall not in any case exceed the cost of correcting the defects or replacing the defective part/material and upon the expiry of the warranty period stipulated above, all such liabilities shall terminate.

The above provision shall equally apply to the material so replaced/repaired by the supplier/contractor under this clause in case the same is again found to be defective within 12 months of its replacement/ repair.

In case replacement/repair of defective material is not carried out within six months of intimation of defects, the supplier/contractor shall have to pay interest @ 12% per annum on the value of each complete operational unit of equipment beginning from the date of becoming defective upto date of its re-commissioning after replacement/repairs.

#### 19. CHANGES:

No variation or modification or waiver of any of the terms and provisions shall be deemed valid unless mutually agreed upon in writing by both the Purchaser and the Supplier.

# **20. OCTROI CHARGES:**

Octroi charges shall be paid extra on actual basis if applicable.

# 21. DESPATCH INSTRUCTIONS:

The material will be required to be dispatched as per the dispatch instructions issued by the Punjab State Transmission corporation Ltd. either according to purchase order cum contract or as intimated separately afterwards/during the pendency of contract.

#### **22.** INSPECTION AND TEST:

The PSTCL shall inspect, examine and test equipment/material through its officials **PSTCL** and/or through an outside agency nominated by manufacturer's/supplier's work, during or after the manufacture of goods prior to despatch, on receipt of a clear notice of minimum two weeks in advance, to be reckoned from the date of receipt by purchaser. The supplier/contractor shall provide all facilities as may be required to carry out the tests in accordance with approved standards, free of cost. If the purchaser or the nominee representative desires to have one or all the tests to be got done through independent lab or test house, the charges of such lab/test house shall be borne by the supplier.

In case the inspection is waived off by the PSTCL, the supplier shall be required to submit test certificates in triplicate for approval. No material shall be dispatched without inspection and/or approval of test certificates unless so directed. Any material consumed during testing/ inspection shall be to supplier's account.

Random testing of material on receipt in the stores irrespective of the fact whether or not it was inspected before despatch shall be carried out by PSTCL and in case of any failure the entire lot shall be rejected at the risk and loss of supplier. The supplier/contractor shall be required to furnish to the purchaser office/consignees wherever necessary the following documents along with the consignment:-

i) Printed pamphlets catalog
 ii) Instruction book
 iii) Drawings
 iv) Any other relevant information (to be

Incorporated at the time of placing the P.O.)

In case the goods have not been inspected/tested at the manufactures works by a representative of the PSTCL, the supplier/contractor shall furnish the following certificates alongwith consignment for facility of the consignee.

- a) Type test certificate
- b) Routine test certificate (if applicable)

#### 23. CIVIL SUIT/JURISDICTION:

All legal proceedings in connection with this purchase order/contract shall be subject to the territorial Jurisdiction of the local civil courts at Patiala only.

## 24. ARBITRATION:

- a) If at any time, any question, dispute or difference, whatsoever, shall arise between the purchaser/PSTCL and the contractor/supplier, upon or in relation to or in connection with the P.O. /contract, either party may forthwith give to other, notice in writing of the existence of such question dispute or difference and the same shall be referred for sole arbitration of a nominee of the purchaser/PSTCL who shall give a reasoned/speaking award. The award of the sole arbitrator shall be final and binding on the parties under the provision of the Indian Arbitration Act, 1940 and of the rules there-under. Any statutory amendment, modification or re-enactment thereof for the time-being in force, shall be deemed to apply to and be incorporated in contract/P.O. It will not be objectionable if the sole arbitrator is an officer of the PSTCL and he has expressed his views on all or any of the matters in question of dispute or difference.
- b) Upon every or any such reference, the cost of and incidental to the reference and award respectively, shall be the discretion of the Sole Arbitrator so appointed who may determine the amount thereof or direct the same to be taxed as between solicitor and client or as between party and party and shall direct by whom and to whom and in what manner the same is to be borne and paid.
- c) The work under the contract shall, if reasonably possible, continue during the arbitration proceeding and no payments due or payable by the purchaser/ PSTCL shall be withheld on account of such proceedings.

# 25. <u>CONSTITUTION EXPERIENCE AND FINANCIAL STANDING</u>:

The bidders should invariably supply the following information with the tenders on relevant Annexure:

- a) Constitution and composition of the firms
  - i) If a Joint Stock company, copy of its Memorandum and articles of Association and other particular.
  - ii) If a partnership, a copy of the partnership deed, particulars of partners.
  - iii) If a proprietary concern, the standing of the proprietor and if registered with the Register of Companies/Firms, their registration No.
- b. Experience & standing in the market.
- c. Particulars of purchase order/contracts executed with the PSTCL & other Board's/government departments.
- d. Financial position;
  - i) Balance sheet for the last three years, including Trading, Manufacturing, profit and Loss Account.
  - ii) Bank references.

# 26. <u>INFORMATION REGARDING LIST OF BANKERS THE PURCHASE</u> DEALS WITH:

- 1. The Railway Receipt/Goods Receipt and invoices etc. should be sent to the authorities to be specified in the Purchase Order.
- 2. Any demurrage occurring as a result of sending Railway goods Receipt through a Bank other than the one with which the accounts of the Purchaser are operated will be to the account of the Supplier/Contractor.
- 3. No goods will be accepted by the consignees unless accompanied by challan or invoices.
- 4. The Punjab State Transmission Corporation Ltd. deals with the following Banks at Patiala.
  - i) State Bank of Patiala, The Mall, Patiala.
  - ii) Punjab National Bank, The Mall, Patiala.
  - iii) United Commercial Bank, Old Kotwali Chowk, Patiala.
  - iv) Central Bank of India, The Mall, Patiala.
  - v) Bank of India, The Mall, Patiala.
  - vi) Bank of Baroda, Patiala
  - vii) Punjab & Sind Bank, Patiala
  - viii) Oriental Bank of Commerce, Patiala

The G.R./R.R. and invoice should, therefore, be sent to Financial Advisor, Centralized Payment Cell, PSTCL, Patiala through any of these banks at Patiala. Any demurrage occurring as a result of sending RR/GR through a bank other than one with which the accounts of the PSTCL are operated will be to the a/c of the supplier.

### **27. SECURITY DEPOSIT:**

- a. The successful bidders shall be required to submit security deposit for faithful execution of the purchase order/contract at the rate of two percent (2%) of ordered value rounded off to a multiply of Rs. 10/-on the higher side.
- b. Ordinarily, in the case of successful bidders, the Earnest Money received with the tender shall be converted into security deposit. If the amount of earnest money received with tender falls short, the contractor/supplier shall be required to deposit the additional amount and in case of earnest money received with the tender is more than the amount of the security deposit required for purchase order/contract, the balance shall be refunded.
- c. The bidders, having permanent deposit of Rs. 10 lacs with CE/TS, PSTCL and hence exempted from depositing earnest money with tender, shall also be required to submit security deposit @ 2% of the ordered value in the form of cash/demand draft/Bank Guarantee (Annexure –L) within 30 days from the award of order/contract.
- d. The following shall be exempted from depositing security against order/contract awarded to them:
  - Manufacturers/suppliers of proprietary items.

- e. On faithful execution of purchase order/contract in respects, including warranty period, the security deposit of the contractor/supplier shall be released by the purchaser. The refund shall be made within 15 days from the issue of release order.
- f. In the event of default on the part of the contractor/supplier in the faithful execution of purchase order/contract, his security deposit shall be forfeited. The forfeiture of security deposit shall however, be without prejudice to any other rights arising or accruing to the PSTCL under relevant provisions of the purchase order/contract like penalty/damages for delay in delivery including suspension of business dealings with PSTCL for a specific period.

# 28. <u>CANCELLATION:</u>

The purchaser reserves the right to cancel the purchase order as a whole or in part at any time or in the event of default on the part of the supplier prior to the receipt of information regarding taking in hand of the manufacture of material against the Purchase order/despatch of material to the consignee.

### 29. CONTRACT AGREEMENT:

The detailed order issued in accordance with agreed terms & conditions accepted/acknowledged by the firm shall itself form valid contract along with subsequent amendment, if any, and shall be construed and operated as such in terms for of Indian Contract Act-1872 as amended up to date.

It will be obligatory on the part of the successful Bidder to execute within 30 days of the receipt of the detailed order, a legal Contract agreement on non-judicial stamp paper of Rs. 15/- only according to stamp act. The signatory on behalf of the successful tender shall also supply the power of attorney in his favour duly attested by Notary Public. Two copies of contract will be executed between the supplier & purchaser. One copy duly executed will be returned to the supplier.

After execution of contract, contractor shall supply if required sufficient number or extra copies of contract, specification drawing/drawings, technical literature, bill of material, as finally approved by the purchaser. The cost of these items shall be deemed to have been included in the tender price and the tenderers will not be entitled to any extra payment on this account.

The tenderer in the interest of execution of contract within stipulated time must offer his comments against each and every clause of this specification to which he does not agree so that decision could be taken by competent authority to all deviations. The clause, against which no comments are offered, shall be considered to have been agreed to by the tenderer and shall have to be included in the contract agreement to be executed/signed by the successful tenderer.

# **ORDER PREFERENCE**:

The PSTCL would allow an order preference to such Bidder whose works are situated within the State of Punjab as per the procedure laid down as under:

- a. The rate of Punjab firms would be de-escalated by 15% for all the Units. Their position in the comparative statement shall be shown accordingly for the purpose of comparative statement.
- b. The zone of consideration for placing of purchase order/contract would there after be demarcated taking into account the quantity of material required as per NIT and the quantities offered by the different bidders subject to the condition that for Punjab based firms upto 20% of the total quantity will be reserved provided they fall in the consideration zone after application of price differential. However, where the Punjab firm qualifies amongst the lowest bidder on the quoted rate, they shall from part of the original quoted list for purpose of placing orders.
- c. The purchase on the Punjab firm claiming order preference and falling within this zone would be placed on lowest rate of the firm not claiming order preference within the zone of consideration or on the concerned Punjab firms own quoted rate whichever may be lower.
- d. In the event of zone of consideration ending at the de-escalated rate tendered by a firm claiming order preference, the rate to be allowed to such firms shall be the next quoted rate by the firm not claiming order preference or the concerned firm's own quoted rates, whichever may be lower.
- e. The Punjab based firms claiming order preference shall be required to furnish an undertaking in prescribed form (Annexure-J) on a non-judicial stamp paper of appropriate value to the effect that they shall execute the order if placed on them under 'Order preference' as per tender specification. Such undertaking should be submitted by the Punjab based tendering firms latest by the close of the day of opening of the tenders. In case no such undertaking is furnished by the Punjab based firms who are otherwise eligible for claiming 'Order Preference' as per the tender specification, their tender shall not be considered for placement of any order under order preference. In the event of refusal by the Punjab based firms to execute the purchase order/contract at their quoted rates or offers made under order preference as per 'c' and'd' above as the case may be, after having furnished the above undertaking their Earnest Money shall be forfeited apart from initiating further administrative action, such as suspending business dealings, blacklisting etc.

#### 31. FAKE INSPECTION CALL:

If the firm does not get the material inspected when the inspecting officer visits their works after receipt of inspection call on one pretext or the other or the material fails during inspection, it will have to bear TA/DA for the journey performed by such an inspecting officer which shall be Rs. 15,000/- (outside Punjab) & Rs. 5000/- (within Punjab) per visit of each officer. Besides the recovery against each fake call, a letter

of warning shall be issued and it shall be counted towards firm's performance for all intents and purposes.

# 32. WORKS APPRAISAL:

If some new firm submits tender which has never supplied the tendered item to PSTCL earlier, its works appraisal shall be carried out before opening of Part-III (Price Bid) to ascertain whether the offer of the firm is technically/commercially acceptable or not. The cost of the works appraisal shall be born by the firm and the same shall be deposited by the firm within seven days from the issue of notice in this regard failing which the offer of the firm shall not be processed further. The charges of Rs. 50,000/- (for firms located outside Punjab) and Rs. 25,000/- (for firms located inside Punjab) shall be levied for the purpose. In case the report is negative, these charges will be repeated. The above charges are non-refundable, and works appraisal of the firm does not entitle the firm for placement of order

### 33. SUBMISSION OF DOCUMENTS FOR EXPEDITIOUS PAYMENTS

In order to ensure expeditious payment of bills, the following may be followed:

- I) The bills alongwith a copy of receipted challan must be submitted in the office of AO/CPC and this office simultaneously within a period of seven days from the date of receipt of the material
- II) The following documents / information should also be supplied directly to AO/CPC in addition to this office.
  - i) Copy of Bank Guarantee
  - ii) Copy of Inspection Call letter.
  - iii) Inspection report / waiver reference if any.
  - iv) Dispatch Instructions if separately given.

Addl. SE/T&S-VIII, PSTCL, Patiala.

#### Part-2

#### TECHNICAL SPECIFICATION FOR BATTERY CHARGERS

#### 1. SCOPE

This specification covers the design, manufacture, testing at manufacturer's works and delivery F.O.R. destination stations in Punjab for 48 Volt D.C. Battery Chargers for installation at various Grid S/Stns. and Power Houses to meet with the requirement of D.C. supply of the Power Line carrier Communication equipments.

### 2. CONDITIONS FOR TRANSPORTATION STORAGE & OPERATION

The following tropical climate conditions encountered in Punjab should not have any adverse effect on the performance of the equipment over short or long period:-

a)	Maximum ambient Temperature	+55 °C
b)	Maximum relative humidity	95 % (Condensing)
c)	Minimum ambient temperature	-5 °C
d)	Altitude above sea level	Upto 1500 Mtrs.
e)	Max. Wind pressure	$150 \text{ Kg/m}^2$

During shipment/storage, the equipment should be able to withstand extreme climatic conditions from -10 deg. C to + 60 deg. C and relative humidity of 98% (Condensing).

Sites susceptible to earth quakes

#### 3. STANDARDS

f)

This specification makes reference to the following standard specifications. When a standard is quoted by number only, the latest edition of that standard shall be referred to:-

- 1) IS: 2026-1962 Power transformers (for battery chargers)
- 2) IS: 4540-1968 Rectifier equipment (for battery chargers)
- 3) IS: 2959-1975 AC/DC contactors.
- 4) IS: 2208-1962 H.R.C. Fuses.

Earth quake incidence

5) IS: 1248-1968 Electrical Measuring Instruments.

# 4. REQUIREMENT

The requirement of 48 Volts D.C. Battery Chargers is as under:-

Sr. No.	Rating	Qty. (Nos.)
1.	20 Amp	9
2.	40 Amp	13
3.	60 Amp	5
4.	80 Amp	5

#### 5. GENERAL CONSTRUCTIONAL FEATURES

All material should be of best quality and the workmanship should be of the highest class. All components shall be suitably tropicalized and protected against bad effects of heat,

humidity and fungus etc. The components/assemblies cases and mountings shall be capable of withstanding the specified climatic and environmental conditions both in operational storage/transit.

The components and assemblies such as control cards, capacitors etc. which are sensitive to temperature shall be located in the cooler parts of the cubicle away from components with high dissipation of heat.

A laminated circuit diagram of the battery charger should be fixed permanently inside the cabinet in each unit.

- a) Modular construction of control circuit shall be employed for ease of maintenance and replacement using plug-in type printed circuit cards/sub units for such circuits as voltage controller, Current controller, Firing Unit (Circuit) and voltage sensor/comparators (e.g. for over voltage, under voltage or for automatic diodes shorting, set able with the help of lockable potentiometers). The plug-in-modules should have suitable inter locks to prevent entry in a wrong slot. The connectors of the PCB should be of best quality.
- b) All operating controls shall be at ground level. Access to different parts of equipment during operation should be with minimum danger/ hazards. The exceeding safe limits should be shielded from accidental contact/exposure and should be correctly labeled.
- c) Wiring shall be such that positive lead for battery and load may be earthed if required and ground terminals shall be provided with isolating links. All wiring shall be properly coded and tagged, except only where colour coded ribbon cable/ribbon wires and internal wires are used. Wires and cables shall not be mounted across sharp edges or high temperature zones.

# 6. TERMINAL BLOCKS

The panels should be complete with terminal blocks for AC mains input, DC battery output and load output circuit as specified. The terminal blocks using screw type or bolted type terminals shall be mounted inside the panels on the rear.

## 7. SIGN WRITING, MARKING AND LABELING

All terminals shall be properly sign written and all components properly labeled to enable identification. Designations of Push Button, switches and other components mounted on Front Panel/inside and their operating positions shall be clearly engraved/marked or sign written.

#### 8. CABINET

The charger should be housed in a sheet metal cabinet of 2mm (14SWG) thickness and panel doors on the front and rear should be suitably hinged. The direct ingress of dust should be prevented. The cabinet should be vermin proof and all access/openings should be filled with fillers.

Further, to have complete and easy access to all parts for ease of inspection, maintenance, disassembly and replacement work the charger cabinet should be mounted firmly on stable/strong steel pedestal. The pedestal stand 400mm high should be fabricated with 40mm or higher size angle iron having thickness not less than 5mm. Holes of 10mmx15mm size should be suitably provided on the base of the stand for fixing it to the grouted bolts on the floor.

#### 9. PAINTING

All iron work shall be cleaned, de-rusted and painted with chromatic type primer with an under coat and final coat of synthetic enamel paint of grey colour conforming to IS: 631-1961

#### 10. COOLING ARRANGEMENT

Natural air cooling under all operating conditions shall be employed in each unit. The equipment should be properly ventilated by providing suitable circular holes or filter slits of width 3mm size at the bottom and top panels of the cabinet to ensure free natural air cooling.

In case any special cooling arrangement be necessary the same should be provided as part of the equipment and should start functioning automatically when the equipment is switched `ON'.

#### 11. ELECTRICAL DESCRIPTION

These 48V Battery charger and Distribution Boards for communication equipment are required to be installed at different Sub Stations/Power Houses in the system. The chargers shall be suitable for giving Trickle charge, quick charge, extended boost charges to 48 Volt DC batteries. Under trickle charge and quick charge modes (with batteries connected) it shall be able to simultaneously feed a variable load of communication equipment connected across its load terminals.

The chargers should be designed for constant current, constant voltage characteristic so that when a discharged battery is connected, it receives initial charge at a high rate until it has built up a voltage corresponding to its gassing voltage of 2.4 volts/cell. Thereafter, the charging proceeds at constant voltage and the current drawn by the battery decreases as it builds up its back EMF. In this way, the charging cycle of the battery is completed in a relatively short time. Due provision should be made in the circuit of battery charger that D.C. Voltage at load terminals feeding communication equipment should remain constant at -/+1% of the set voltage during float/quick charging conditions.

The constant current charging limit of the battery charger shall be adjustable for adequate range upto 110% of rated capacity of the charger. The provision of a separate sick cell charger should be made to charge one or two cells when ever required.

#### a) INPUT TRANSFORMERS/CHOKES

The transformer and choke coils shall be vacuum impregnated with class B insulation.

The maximum permissible temperature rise for transformers on continuous working at rated output over an ambient temperature of 50 deg.C should not exceed 50 deg.C as per IS-2026.

The input transformer will be step down type and should have adequate number of taps with regulation for -20% and +15% variation for each tap. A rotary which should be provided for selecting different input voltage tap positions.

#### b) CONTACTORS

The contactor shall be provided to control the input supply to the charger. The contactor shall conform to IS:2959 and shall be of proper duty rating in accordance with the input and output current rating of battery charger. The contactor should be of best quality and of standard make of Siemens, L&T or Cuttler Hamer or its equivalent.

#### c) RECTIFIER/SEMI-CONDUCTOR DEVICES

The battery charger rectifier units shall use Thyristor/SCR Bridge consisting of silicon diodes. The rectifier unit shall conform to IS: 4540.

All semi-conductor devices such as thyristors, diodes, transistors etc. shall be of appropriate voltage and current ratings. The rectifiers shall be connected in full wave bridge configuration.

The rectifier elements should be provided with suitable heat sinks to provide heat dissipation to keep the temperature within safe limits.

The rectifier assembly should be protected against voltage and current transients. Each rectifier element shall be provided with fuses for protection against current surges. Suitable protection/surge suppressors like R.C. snubber network should be provided for protection against voltage surges/transistors.

#### d) SICK CELL CHARGER

The provision of a separate sick cell charger should be made to charge one or two cells. The output voltage and current rating should be as follows:-

- i) 20Amp. Battery charger.....2-6 volts, 10 Amps.
- ii) 40Amp. Battery charger.....2-6 volts, 20 Amps.
- iii) 60Amp. Battery charger.....2-6 volts, 30 Amps.
- iv) 80Amp. Battery charger.....2-6 volts, 40 Amps.

#### e) SPARES

The recommended set of spares for the Battery Chargers should be clearly specified and their prices to be mentioned in the price-bid separately. The spares should be packed and marked separately for each item.

# f) EQUIPMENT RATING

The 48 volts battery charger and distribution board panels should be rated for the following current outputs:-

Sr.	Capacity of	Rated output of the	Output of	No. of output
No.	DC battery	charger (Battery, plus	charger across	circuits (DC
	associated with	load)	load terminals	Distribution )
	the charger			
1	2	3	4	5
1.	100AH	20 Amp. *	0 to 20 Amp.**	4
2.	200AH	40 Amp. *	0 to 40 Amp.**	6
3.	300AH	60 Amp. *	0 to 60 Amp.**	8
4.	400AH	80 Amp. *	0 to 80 Amp.**	10

i) Overload capacity required on = 12.5% continuous rated charger output

ii) -do- = 25% (Intermittent) for 3 hours.

- \* The charger should be capable of delivering rated output (as shown in col. 3 of the above table) for boost charging the battery at 5 hour rate also. During this period load corresponding to over load capacity of charger as at ii) above {i.e. 25% (Intermittent) for 3 hours} may also be drawn at the load terminals.
- \*\* The output of the charger should be settable to deliver across load terminals upto 50% (as shown in col. 4 of the above table) of its rated output. However, the total load (Battery plus Load) on the charger should not exceed rated output of the charger.

The output circuit/feeder should be provided with protection fuses and switches.

#### g) A.C.INPUT POWER SUPPLY

230 volts single phase 50Hz. or 415 volts three phase 50Hz.

Expected voltage variation +/-25% Expected Frequency variation +/-3Hz

The equipment should be capable to control automatically input A.C. Voltage variation of 170 volts to 290 volts (approx.) single phase without any effect on the output voltage.

#### h) OUTPUT VOLTAGE

The charger shall be designed for the following output requirements:-

i) Rated nominal DC output voltage across load terminal

: 48 volts + 10%, -5%

ii) Output voltage with battery on extended/ Boost charge (Initial charge). : 48 volts to 65 volts corresponding to 2.0 volts to 2.7 volts per cell. Manually adjustable smooth potentiometer shall be provided for setting this voltage.

iii) Output voltage with battery floating on 'Quick charge mode & variable load connected across load terminals.

: 57.6 volts corresponding to nominal

2.4 volts/cell.

iv) Output voltage with battery floating on trickle charge(float mode) and variable load connected across terminals.

: 51.0 volts to 52.0 volts (corresponding to 2.15 volts/cell)

A selector switch should be mounted on the front of panel for selection of auto/manual charge mode for battery between `Trickle' (Float) mode & 'Quick' charge mode and extended/boost charge mode.

#### i) OUTPUT VOLTAGE REGULATION

For load changes from 0 to 100% and specified mains voltage variations 170 to 290 volts single phase and frequency variation of (+/-3Hz) the regulation of output voltage in both trickle charge & quick charge should be within +/-1% of the set voltage.

# j) LOAD VOLTAGE LIMIT

In case of quick charge conditions, the voltage across load terminals should be kept below 52 volts with the help of voltage dropping devices viz. diodes of suitable capacities which should be automatically shorted sequentially with the drop in load voltage. Otherwise suitable switch for selection of No. of 'VDDs' in circuit may be provided.

During abnormal conditions like mains failure fault with the charger also, the VDDs will get shorted and allow the battery to feed the loads directly without any excessive voltage drop in the power supply panel.

Maximum voltage drop between battery terminals & load terminals when main is switched off and 100% rated load current is drawn across load terminals should be less than 0.5 volts.

#### k) CURRENT LIMITING FEATURE

In the event of prolonged AC Mains failure, the battery may get discharged completely and on restoration of AC mains supply battery shall draw very heavy current from the charger panel which may damage both the battery and panel. To guard against this, a current limiting feature in panel shall be included, such that the output voltage falls rapidly with increase of current beyond its rated capacity.

#### 1) NOISE/RIPPLE VOLTAGE

Suitable filter smoothing circuit shall be provided for keeping the ripple voltage across load terminals to the minimum as below:-

a) When not connected to battery : Less than 4 mv (psophometric)

b) When floating across the battery : Less than 2 mv (psophometric)

#### m) EFFICIENCY

The efficiency of the chargers offered should be clearly indicated in the tenders. It should not be less than 70%.

#### n) PANEL METERS

The panel meters shall meet the requirements of IS: 1248. The following meters shall be provided on the Front of Charger Panel. All meters shall be of minimum size 96x96mm.

- 1. AC Voltmeters for AC mains supply (0-300 volts) for single phase and 0-500 volts for 3-phase with selector switch.
- 2. Moving coil voltmeter for battery voltage.
- 3. Moving coil voltmeter for DC output load voltage.
- 4. Moving coil ammeter with centre zero for charge/discharge current of battery.
- 5. Moving coil ammeter for load current.

The meters shall be of minimum accuracy class 1.5 or better and conform to the latest version of IS: 1248.

#### o) PROTECTIONS AND CONTROLS

All controls(rheostat knobs, switches and HRC or glass cartridge fuses) should be mounted on Front of panel in easy operation position.

The following protections shall be incorporated:-

1. Short circuit

2. Over voltage at output : A (due to faulty condition)

: At load terminals more than 54 volts.

3. A.C. Input under voltage

: AC input 165 volts single phase or 315

Volts 3 phase.

4. AC input over voltage : A.C. input 295 volts single phase or 515 Volts 3 phase.

#### 5. Mains Failures

Each charger shall have automatically switching `OFF' and switching `ON' arrangement in the event of failure or restoration of mains supply. This shall be in addition to manual operating arrangements.

The common output load terminals and battery terminals shall be protected with HRC fuses. Back up protection against over load and short circuit shall be with HRC fuses.

Each output sub-circuit on the distribution Board will be controlled by a separate switch and protected by HRC fuses in negative line. The number of output circuits to be provided for different power supply panels shall be as indicated in the Table for `Rating' above.

The grounding links shall be provided for positive bus bar at the distribution Board.

### p) FILTER AND CONDENSERS

These shall be protected with HRC houses.

All HRC fuses should be of indicating type for ease of locating a blown up fuse.

#### q) ANNUNCIATION SCHEME

A full facia annunciations scheme having visual indication as well as Audio Alarm with adequate number of accept and reset push button system & facia windows shall be provided to meet with the following:-

1.	Mains supply fail	Alarm
2.	Over voltage at load terminal 54 volts (at load terminals)	Trip
3.	AC under voltage (at 165 volts for single phase input	Trip
4.	a) AC over voltage(at 295 volts for single phase input)	Trip
	b) Over load (10% overload)	Alarm
5.	Load short circuit	Trip
6.	Under voltage at output when less than 44 volts.	Alarm
7.	Charger fail	Alarm
8.	S.C.R./Thyristor fail	Trip
9.	Input fuse fail	Alarm
10.	Input fuse fail	Alarm
11.	Battery fuse fail	Alarm
12.	Rectifier fuse fail	Alarm
13.	Filter capacitor fuse fail	Alarm

The above facility for the above annunciations shall be included with the DC Bell equipped in the annunciation scheme.

Besides above, LED indication for each of the HRC fuse failures shall be brought on the front of the panel. Mains 'ON' indication and DC 'ON' indication shall also be separately provided on the panel.

Charger fail indication and alarm should come when charger is `ON' and still batteries are discharging. This indication should not come when mains fail and batteries are supplying load.

# r) RADIO FREQUENCY INTERFERENCE SUPPRESSION

The charger unit shall provide adequate screening/protection against all sources of Radio frequency interference through R.F. Filter suppression ckt. work at the input of charger.

# s) TESTS AND INSPECTION

In case any IS or IEC is available at the time of supply, testing of battery chargers shall be done accordingly. Otherwise tests may be performed generally as per manufacturer's standard practice modified to meet the requirements of this specification. Copies of typical tests certificates shall be included in the Tenders for review. The purchaser reserves the right to get the equipment inspected during the course of manufacture and completion.

The transformers and choke coils used shall meet the tests as per IS: 2026.

Voltmeters, Ammeters, thermometers, Hydrometers and other components used shall meet the testing requirements of relevant IS.

Following tests shall be carried out at the works of the manufacturer before dispatch of material:-

- 1) Insulation resistance test with 500 volts D.C.
- 2) High voltage test by applying 2KV for 1 minute.
- 3) Automatic voltage regulation test by varying input supply voltage and output load from no load to full load.
- 4) Load test/Heat run test at rated output.
- 5) Ripple/Noise voltage test.
- 6) Temperature rise test on transformer.
- 7) Efficiency test.
- 8) Current limit test.
- 9) All tests as per Annunciation scheme.
- 10) Sick cell charger output voltage test.

#### t) RATING PLATES/CARDS

The rating plate shall be provided as per IS Specification or IEC Publication, otherwise, following particulars should be inscribed on the rating plates.

- a) Manufacturer's Type and Trade Name of charger.
- b) Rating in Amps.
- c) Name of Purchaser i.e. Punjab State Transmission Corporation Limited.
- d) Purchase order No. & date.
- e) Name of Manufacturer
- f) Year of Manufacture
- g) Rated load across
  - i) Battery terminals

- ii) Load terminals
- h) Load current limits
  - i) Maximum
  - ii) Minimum
- i) Mains input supply
- j) Mains input taps
- k) Maximum power drawn by the float charger
- 1) Trickle charge, quick charge and boost charge voltage

#### u) GUARANTEED TECHNICAL PARTICULARS (GTPs)

The tenderers must furnish with the tenders, the "Guaranteed Technical Particulars" as per Annexure- H separately for the chargers offered.

#### 12. DELIVERY & DESPATCH

The delivery of equipment should commence within two months from the date of receipt of the order/approval of drawings and shall be completed in four months thereafter. The firm shall submit all drawings within 15 days of the receipt of order. Any delay beyond 15 days in submission of the drawings shall be to the firm's account. The tenderers should confirm their agreement to schedule the manufacture and delivery of different items to meet actual requirements in the field to reschedule their deliveries if so required by the purchaser later on.

The equipment is to be consigned to AEE/CO&C Stores Sub-Division, PSTCL, 66KV Grid Sub-Station, G.T.Road, Ludhiana- 141008 (RAIL HEAD: LUDHIANA, NORTHERN RAILWAY).

#### 13. RESPONSIVENESS AND ACCEPTANCE OF SPECIFICATION/TENDER

This specification will form the basis for evaluation and acceptance of tenders. Tenderer should, therefore, endeavor to submit fully responsive offers for equipments meeting the requirements of this specification. Any modification required in their standard equipment to fall in line with this specification must be included.

Any deviation from the specification fully explained in the tender, if found acceptable will be confirmed in writing by the purchaser.

Acceptance of this specification without comments shall be taken to indicate that the tenderer agrees to comply with the requirements & conditions contained herein.

The purchaser will have the right to reject all or any equipment/material which does not conform to the requirements and conditions laid down in this specification.

The purchaser also reserves the right to accept or reject any offer without assigning any reasons.

The purchaser also reserves the right to divide the quantities to be ordered on more than one tenderer.

Addl. SE/T&S-VIII, PSTCL, Patiala.

#### **ANNEXURE-A**

# SCHEDULE OF REQUIREMENT& DELIVERY

# 1) REQUIREMENT:

The present requirement of Battery Chargers is as under:-

DC Battery Chargers

- A) 48 Volts/20 Amps. 9 Nos.
- B) 48 Volts/40 Amps 13 Nos.
- C) 48 Volts/60 Amps 5 Nos.
- D) 48 Volts/80 Amps 5 Nos.

However the purchaser shall have the right to increase/decrease the above requirement at the time of placing the order without any prior notice.

### 2) DELIVERY:

The delivery of equipment should commence within two months from the date of receipt of the order/approval of drawings and shall be completed in four months thereafter. The firm shall submit all drawings within 15 days of the receipt of order. Any delay beyond 15 days in submission of the drawings shall be to the firm's account. PSTCL will send approval of equipment drawings and technical details within 15 days from their receipt.

The tenderers should confirm their agreement to schedule the manufacture and delivery of different items to meet actual requirements in the field to reschedule their deliveries if so required by the purchaser later on.

However, the Purchaser reserves the right to divide the tendered quantity to have material as per requirement. In case the order is placed on more than one firm, the delivery period shall be changed on pro-rata basis.

# PERFORMA FOR ELICITING INFORMATION FOR APPRAISAL OF FIRM'S CAPABILITY AND CAPACITY TO MANUFACTURE ITEM(S) EQUIPMENT AS PER REQUIREMENTS OF PSTCL TENDER.

### 1. A) NAME OF THE TENDERING FIRM:

- i. Complete Address of the office:
- ii. Telegraphic Address
- iii. Telephone Number
- iv. E-mail
- v. Fax Number

# B) NAME OF THE TWO RESPONSIBLE PERSONS:

- i. Officer with Designation (Managing Director/Partner/Chief Engineer/Works Engineer etc.) alongwith their address, Income Tax Permanent Account No.
- ii. Day on which weekly holiday is observed in the office

# C) COMPLETE ADDRESS OF THE WORKS:

- i) Telegraphic Address
- ii) Telephone Number
- iii) E-mail & Fax No.
- iv) Name of the two Responsible Persons with Designation (Managing Director/ Partner/Chief Engineer/Works Engineer etc.)
- v) Day on which weekly holiday is observed

# <u>D) NAME, ADDRESS & TELEPHONE NO. OF TWO REFERENCE HAVING FACILITIES OF P&T TELEPHONE</u>

- i) Nameii) Nameii) Address
- iii) Telephone No. iii) Telephone No.

#### 2. YEAR OF ESTABLISHMENT.

#### 3. CONSTITUTION OF THE FIRM:

- i) Private or Public Ltd.
- ii) Registered under the Companies Act or any other act, giving registration No. & date
- iii) Year of establishment

#### 4. FINANCIAL POSITION

- i) Land (Area & Value)
- ii) Building(Cover & Value)
- iii) Plant & Machinery
- iv) Total Drawing Limit from Bank
- v) Annual Financial Turn Over (duly Audited for the last three years)
- vi) Latest Income Tax Clearance Certificates

#### 5. MAN POWER

- i) Graduate Engineer(s)
- ii) Diploma Holders
- iii) Skilled Workers
- iv) Unskilled works

# 6. Production assessment:

 i) Detail of Plant & machinery installed (Please attach separate sheet, if necessary)

- ii) Detail of Raw Material
- iii) Stock in Hand
- iv) Source of Raw Material
- v) In case, any Raw Material are required to be imported, indicate arrangement for procurement
- vi) Quality Control exercise in procurement of raw material
- 7. a) Detail of manufacturing process
  - b) Scheme of quality control
  - i) During manufacturing
  - ii) At the finish stage
  - c) Whether any record is being maintained in respect of Quality Control exercised.
- 8. Details of testing facilities available with the firm (Information may be supplied in the enclosed Performa)
- 9. Detail of order executed/ under execution during the last three years
  - a. With PSTCL
  - b. Other State Electricity Utilities/State Govt./Govt. of India and their institutions/undertakings
  - c. Other important customers.
- 10. a) Whether the firm is licensed to use ISI mark or any other Govt. quality mark (copies of latest test certificates issued by Govt. laboratories and recognized test houses be attached)
  - b) Whether items offered conform to ISS or any other internationally recognized standards, if so give reference
- 11. (a) Manufacturing capacity of the firm per month (Nos)
  - (b) Current commitments/order booking of the firm with other SEBs/ State utilities/ Pvt. Concerns (Nos)
  - (c) Spare monthly capacity available for the instant Tender Enquiry of PSTCL (Nos)

Signature of authorized Signatory of the firm with stamp

- Note: 1. Please attach additional sheets bearing Authorized signatory's signatures & stamp where required.
  - 2. Copies of documents attached with the Performa should be attested by firm's authorized person with stamp mark of the firm.
  - 3. Detail of documents submitted shall be marked with page no. and index may be submitted accordingly.

# SCHEDULE OF GENERAL INFORMATION (TO BE FILLED BY THE BIDDER)

1.	Name, address & telephone Nos. of manufacture/ Principals.	
2.	PAN No.& proof of filling Income Tax return	
	for last 3 years of manufacturer/principals.	
3.	Name & address of supplier/ firm./company.	
4.	PAN No.& Income Tax return for last 3 years	
	of supplier/firm/company.	
5.	Name address & telephone no. of	
	Director/Partners/proprietors.	
6.	PAN No.& proof of filling income tax return	
	for last 3 years of Director/ Partner/Prop.	
7.	Telegraphic address.	
8.	Turnover of the firm for the last 3 years.	
9.	Bank references.	
10.	Testing facilities available at works for	
	routine and acceptance tests (furnish details of	
	testing equipment).	
11.	Name of Works Manager/Managing Director.	
12.	Telephone No. of the office at manufacture	
	works/supplier to whom reference should be	
	made for expeditious technical co-ordination.	
13.	Whether holding BIS marking license, if yes,	
	enclose scanned copy.	
14.	Whether the material carries State Quality	
	Mark, if yes, enclose scanned copy.	
15.	Memorandum and Article of Association of	
	private Ltd., or Public Ltd.,	
	company/partnership deed in case of	
	partnership firm (Copy to be attached).	
		CICNATUDE OF DIDDED
		SIGNATURE OF BIDDER NAME
		DESIGNATION
	Dated:	SEAL OF FIRM/COMPANY.
	Ducca.	

#### **ANNEXURE-D**

# UNDERTAKING FOR NON PAYMENT OF COMMISSION ETC.

- i) We will not pay any commission etc. or engage any commission agent for dealing with PSTCL in any matter including purchase of equipment etc
- ii) That no officer/official of the PSTCL will deal with any person who claims to be a commission agent or liaison agent of any company and that the officers/officials of the PSTCL must deal only with persons directly employed by us.

SIGNATURE OF BIDDER
NAME
DESIGNATION
SEAL OF FIRM/COMPANY

Dated:

#### **ANNEXURE-E**

# GENERAL COMMERCIAL PARTICULARS (Following information must be submitted by the bidders)

**Excise Duty** 1 i) Rate considered in quoted prices (a) In case Nil / Concessional rate of ED is applicable then ii) maximum rate of ED applicable at the time of tendering will be absorbed by the bidder (Yes/No) CST / VAT 2. i) Rate considered in quoted prices (a) In case Nil / Concessional rate of CST/ VAT is applicable then maximum rate of CST/ VAT applicable at the time of tendering will be absorbed by the bidder (Yes/No) Advance Tax (if applicable) 3 **@** Validity of offer (min. 120 days) Whether Schedule of delivery as per specification (Yes/No) Whether Terms of Payment as per specification (Yes/No) 7 Nature of Price **Firm** 8 Any other information to be mentioned by the bidders

#### **ANNEXURE-F**

# SCHEDULE OF FINANCIAL & TECHNICAL RESOURCES OF THE TENDERER

- 1. Financial status and experience.
  - (a) Annual business turnover for the last 3 years.
  - (b) A list of purchase orders for the manufacture of 48 Volts/40 Amp. Battery Chargers executed/obtained during the period giving purchase order no. Qty. & name of authorities any may be attached.
  - (c) A list of orders in hand with quantity and their delivery schedule.
  - (d) Last year's production month wise.

### 2. Technical

- (a) Location of plant.
- (b) Brief details of Plant and machinery available.
- (c) List of testing instruments.
- (d) ISO/others certifications, if any

Signature of tenderer.

#### PRICE SCHEDULE

TENDER ENQUIRY NO. : STQ-8014 ITEM: 48V/20, 40, 60 & 80 Amp DC BATTERY CHARGERS

NAM	E OF BIDDER :				
		DC	BATTER	Y CHARC	GER
		20A	40A	60A	80A
1.	Quoted prices ex-works/unit including				
	packing forwarding charges part of				
	Production cost.				
2.	Excise Duty @				
3.	Total (1+2)				
4.	CST @/VAT @				
5.	Total (3+4)				
6.	Packing cost				
7.	Forwarding charges				
8.	Freight charges				
9.	Transit Insurance charges				
10.	Total (5+6+7+8+9)				
11.	Advance Tax(if applicable) @				
12.	Total Unit F.O.R. Destination price				
	(10+11)				

(SIGNATURE) (SEAL)

NOTE:

- a) The prices quoted should be FIRM.
- b) Rate of ED, CST/VAT applicable must be mentioned clearly otherwise maximum rate of ED, CST and VAT shall be taken into account for evaluation purpose.
- c) The firm indicating 'Nil' or 'Concessional' rate of ED/CST/VAT will have to absorb the ED/CST/VAT upto full rate applicable at the time of tendering. The firm who do not agree to this stipulation or indicate ED/CST/VAT as extra without indicating the applicable rates shall be loaded with max. rate of ED/CST/VAT.
- d) Quotations of each item shall be given/made separately online as per the given format. In case of violation of this stipulation, the offers shall be liable to be rejected.

	Signature	of	Tenderer
Place:	with stamp	of the	e firm

# **ANNEXURE-H**

# GUARANTEED TECHNICAL PARTICULARS OF 48 VOLT D.C. BATTERY CHARGER

<u>20A</u> <u>40A</u> <u>60A</u> <u>80A</u>

1)	Manufacturer's Name	:
2)	Rated charger output voltage (At load terminals)	:
3)	Rated charger output (Amps) (Battery plus load).	:
4)	Rated Charger output (Amps) across battery terminals (Variable)	:
	<ul><li>i) Float Charging</li><li>ii) Quick Charging</li><li>iii) Boost Charging</li></ul>	: : :
5)	Rated load on charger across load terminals (Variable).	:
6)	Load current limit a) Maximum (Including overloadin b) Minimum	g): :
7)	Mains input single phase or three: phase.	
8)	Permissible Plus & Minus Mains frequency variations.	:
9)	Maximum Plus & Minus mains voltage variation.	:
10)	Minimum efficiency.	:
11)	Maximum power drawn	:
12)	Type and material of rectifier equipment used.	:
13)	Psophometric Ripple voltage (Noise (without battery).	2):
14)	Psophometric Ripple voltage (with battery)	:
15)	Trickle charge voltage	:

16)	Quick charge voltage	:
17)	Extended/Boost Charger Voltage	:
18)	Type of primary protection provided:	:
19)	Rated DC output voltage for i) Float mode (normal 2.15V/Cell) ii) Charge mode (2 to 2.4V/Cell) iii)Extended Boost charge mode (2 to 2.7V/Cell)	: : :
20)	Limits allowed in extended charging i) Minimum ii) Maximum	:
21)	Metering:- i) Output current(Ammeter) ii) Output voltage(Voltmeter) iii) D.C.Ammeter with selector switch (For battery)	:
22)	SPECIFY:- a) Range of Meter b) Size of Meter c) Make of Meter d) Monitering facility e) Class & Accuracy	: : : : : : : : : : : : : : : : : : : :
23)	Any additional facilities provided	:
24)	Mention whether alarm is audio-visual type.	:
25)	Type of protection on secondary side provided to avoid over voltage or under voltage effect on the equipment(Load).	:
26)	Max ambient temperature at which: the performance remains uneffected	
27)	Voltage regulations(for trickle and quick charge conditions)	:
28)	Withstand test voltage of transformer as well as rectifier equipment.	:

- 29) Whether arrangement for automatic: switch OFF & switch ON of float charger in the event of failure or restoration of mains supply is provided? (This will be in addition to manual operation).
- Whether provision of automatic DC: output voltage control system exists.
- 31) ISI or IEC to which the equipment: conforms.
- 32) Type of cooling arrangement used
- 33) Permissible over loading:
  - a) Continuous :
  - b) Intermittent (3 hrs.)
- 34) Indicate deviations if any

# **ANNEXURE-I** SCHEDULE OF DEVIATIONS:

A)	All	the	technical	deviations	from	PSTCL	specification	must	be	given
hereunder;	if no te	chnical	deviations	are given	in this	schedule	then it will b	oe pres	ume	d that
there are n	o techni	cal devi	ations fron	n PSTCL's	specifi	ication.				

Sr. No.	Details of Technical Specification	Remarks

Signature and Seal of tenderer.

B) All the deviations from PSTCL's general Terms and Conditions must be mentioned hereunder otherwise it will be presumed that there are no such deviations and the material shall be supplied as per PSTCL specification and General Terms and Conditions.

Sr.No.	Details of deviations from General	Remarks
	Terms & Conditions	
	of specification.	

Signature and Seal of tenderer.

# **ANNEXURE-J**

# UNDERTAKING FORM FOR ORDER PREFERENCE

(TO BE ENTERED ON A NON-JUDICIAL STAMPED PAPER OF APPROPRIATE
VALUE).
We state that our works are situated in the state of Punjab and we
claim "Order Preference" as stipulated in the PSTCL tender specification
No due on against which we have submitted
our tender No dated We undertake to execute the
order/contract if placed/awarded on to us even by counter offer at the rates worked out by
Punjab State Transmission Corporation Ltd. in accordance with its Purchase Regulations.
It is further understood that in the event of refusal by us or failure on our part to execute
the order/contract (full or part) placed/awarded on to us under "Order Preference' on any
account what-so-ever, the Punjab State Transmission Corporation Ltd. shall have the
right to forfeit the earnest money deposited by us and we shall have no claim for the
refund thereof. The Punjab State Transmission Corporation Ltd. shall also have the right
to suspend business dealing with us and to black-list our firm, without prejudice to other
rights accruing to the Punjab State Transmission Corporation Ltd. under the purchase
Order/Contract, if placed/awarded on to us.
C: another of
Signature of Constituted attorney.

# **ANNEXURE -K**

# **CONTRACT AGREEMENT FORM**

(TO BE ENTERED ON NON-JUDICIAL STAMP PAPER WORTH Rs 15 ONLY)

This contract	agreement made	this		day c	of		_in the
year	between the	Punjab	State	Transmission	Corporation	on Ltd.,	herein
after called 'Purchas	er' and M/s.				having the	eir Regd.	. office
at							
delivery/construction	of in accordance	with P	urchase	er's Enquiry N	No		dated.
	and	Contrac	ctor's	Proposal	No		
dated							
This i	s in confirmation	of the a	dvance	e acceptance n	otified in	the Purc	haser's
letter No	whe	rein, the	Purch	naser has acce	epted the p	proposal	of the
contractor for supply	and delivery/con	struction	of	as	per purch	ase/worl	k order
Nodate	d						
In vie	w of the foregoing	g, the Pu	ırchase	r and the Con	tractor hav	e agreed	l to the
scope of work and th	e terms and condit	ions of t	he ord	er settled betw	een them.		
The NIT/ ten	der specification,	the Con	tractor	's proposal ar	nd related	correspo	ndence
and the P.O. acknow	ledged/accepted by	y the Co	ntracto	r from part of	this agreer	nent.	
This agreeme	ent contains		pages	. In witness w	here of the	parties	here to
have affixed their sig	natures on the day	, month	and th	e year written	as above.		
CONTRACT	OR.			I	PURCHAS	ER	

# **ANNEXURE -L**

# PERFORMA FOR BANK GUARANTEE

1.	The bank of hereby agrees un-equivocally and
1.	unconditionally to pay, within 48 hours, on demand in writing from the Chief
	Engineer/TS, PSTCL or any officer authorized by him in this behalf, of any amount
	upto and not exceeding Rs (in words Rupees
	who have entered into a contract or have unconditionally
	accepted for the Purchase Order Nodated for the supply of
	material for order value of Rs
2.	This guarantee shall be and binding on this bank upto and including
	and shall not be terminable by notice or on account of any
	change in the constitution of the Bank or the firm of contractor/suppliers or by any
	other reasons what-so-ever and our liability hereunder shall not be impaired or
	discharged by any extension of time or variation of alternation made, given, conceded
	or agreed with or without our knowledge or consent by or between the parties to the
	said contract/purchase order.
3.	Our liability under this Guarantee is restricted to Rs(in word Rs.
	Our guarantee shall remain in until
4.	We hereby agree that any claim or dispute arising under this deed shall fall with the
	jurisdiction of competent courts at Patiala.
	We hereby further declared that this Deed has been executed by our lawfully
	constituted attorney legally competent to sign and execute such deeds.
	Signature
	For Prop
	Bank