

ASSAM ELECTRICITY GRID CORPORATION LIMITED

OFFICE OF THE DEPUTY GENERAL MANAGER

UPPER ASSAM T&T CIRCLE, GARMUR, JORHAT-07



TENDER DOCUMENT

NOTICE INVITING TENDER NO: AEGCL/DGM/UATTC/Railway Deposit/T-31/2024/586

Dated: 24/ 07/2024

Name of work

Supply of 110 Volt, 300Ah battery bank & Battery Charger for 132kV GSS, AEGCL, Golaghat.

Tender cost amounting to Rs

Deposited in the form of

Vide

Issued to

Address

Signature of Contractor/Firm

Deputy General Manager
UAT&T Circle, AEGCL,
Garmur, Jorhat-07

- (A) **INFORMATION TO BIDDER:**
1. **NAME OF WORK: - Supply of 110 Volt, 300Ah battery bank & Battery Charger for 132kV GSS, AEGCL, Golaghat.**
 2. **Bid Value: Rs. 6,70,960.00 (Rupees Six lakh seventy Thousand Nine Hundred and Sixty)only**
 3. **LOCATION OF WORK:- 132kV GSS, AEGCL, Golaghat.**
 4. **TENDER ADDRESS:-Office of the DGM, UATTC, AEGCL, Garmur, Jorhat.**
 5. **BIDDING PROCEDURE:-**
 - a) All tenders shall have to be submitted in prescribed forms attached herewith eventually to be drawn up in the rules of AEGCL.
 - b) Two different envelopes to be used as follows.
Envelope-1: Bid document signed by bidder on all pages, Tender Document cost, Earnest Money, Techno-commercial data of the Bidder and other necessary documents must be enclosed.
Envelope-2: Price Bid
 6. **KEY DATES:-**
 - a) Bid Submission Start Time & date:- 12.00 Hrs. of **29/07/2024**
 - b) Bid Submission End Time & date:- 14.00 Hrs. of **19/08/2024**
 - c) Techno-Commercial Bid Opening Time & date:- 14.30 Hrs. of **20/08/2024**
 7. **TENDER PAPER COST AND MODE OF PAYMENT:-**

Bidder has to pay Non-Refundable tender document cost @ **Rs. 500.00 (Rupees Five hundred)** only in the form of DD in favour of the **Managing Director, AEGCL, Bijulee-Bhawan, Paltanbazar, Guwahati-1**, payable at **Guwahati**.The original copy of the DD must be submitted along with relevant documents in the Envelope-1.
 8. **BID SECURITY/EARNEST MONEY AND MODE OF PAYMENT:-**
 - a) For participation in bidding procedure, participants must compulsorily pay the Bid Security of **Rs 13,500.00 (Rupees Thirteen thousand Five hundred)** only in the form of Fixed Deposit/Bank Guarantee/ in favour of the **Managing Director, AEGCL, Bijulee-Bhawan, Paltanbazar, Guwahati-1**, payable at Guwahati. The original copy of the Bid Security must be submitted along with relevant documents in the Envelope-1.
 - b) The bid security of the successful Bidder shall be returned as promptly as possible after completion of the work./submission of the completion certificate.
 - c) The bid security of unsuccessful Bidders shall be returned as promptly as possible as the successful Bidder submit the LOA.
 - d) The bid security may be forfeited:-
 - (i) if a Bidder withdraws its bid during the period of bid validity period.
 - (ii) if the successful Bidder fails to sign the Contract within the specified period.
 - (iii) if the successful Bidder fails to furnish letter of Acceptance (LOA) within 07 (Seven) days' time of issue of Letter of Intent (LOI).
 9. **VALIDITY OF BID:-**
 - a) Bid shall remain valid for the period of 180 days after the submission deadline date prescribed by AEGCL. In exceptional circumstances, prior to the expiration of the Bid validity period, AEGCL may request Bidders to extend the period of validity of their bids. The request and the responses shall be made in writing.
 10. **TIME OF COMPLETION:-**
 - a) The allotted time of completion for the work is 06 Months from the issue of the work order.
 11. **DISCLAIMER:-**
 - a) AEGCL is not committed contractually in any way to those Bidders whose Bid are accepted. The issue of this Bid does not commit or otherwise oblige AEGCL to proceed with any part or steps of the process.
 12. **LANGUAGE OF BID:-**
 - a) The Bid, as well as all correspondence and documents relating to the bid exchanged by the Bidder and AEGCL, shall be written in the English and / or Assamese language.
 13. **NEGOTIATION WITH BIDDER:-**
 - a) The AEGCL reserve the right to hold negotiations with lowest bidder if AEGCL feels the quoted rates of particular item(s) are unreasonably high. The bid must be valid, eligible and technically acceptable and considered for award of contract.

14. **VERIFICATION OF DOCUMENTS:-**

- a) AEGCL reserves the right to verify the documents submitted by the bidders with issuing authority and if any abnormalities are observed in the same, their bids will be rejected.

15. **RIGHT TO REJECT:-**

- a) AEGCL reserves the right to reject any or all the bids without assigning any reason thereof and AEGCL further reserves the right to split up the work order in favour of more than one Contractor. AEGCL also reserves the right to reject the lowest or any other price without assigning any reason. The clauses which are not appearing in this Bid document will be as per The General Condition of Supply and Erection 2009 of AEGCL. The General Condition of Supply and Erection 2009 of AEGCL is available in the AEGCL's website www.aegcl.co.in.

(B) **ELIGIBILITY QUALIFICATION.**

1. **ELIGIBLE BIDDERS:-**

- a) A Bidder may be a private entity or a government-owned entity or any combination of such entity with the intent to enter into an agreement supported by a letter of intent or under an existing agreement in the form of a joint venture, consortium or association.
b) A Bidder, and all partners constituting the Bidder, shall have Indian nationality.

2. **EVALUATION CRITERIA:-**

- a) The Techno-Commercial Evaluation will be done on the basis of technical qualification, Financial qualifications and fulfilment of the legal conditions.
b) The Price Bid of only Responsive Techno-Commercial Bidders will be opened and intimation will be issued in due course.

c) **TECHNICAL QUALIFICATION:-**

1. In order to qualify technically for this Bid, Bidder must have experience of executing a supply order of electrical items in a Transmission/Generation/Distribution utility in past five years conforming to **either of** the following requirements:

Sl No	Description	Amount not less than (Rs)
1	3 (three) similar completed works	2,00,000.00
2	2 (two) similar completed works	3,35,000.00
3	1 (one) similar completed work	5,37,000.00

If the nature of work and value differs from the above stated conditions, it will not be considered while evaluation of technical qualification.

2. **FINANCIAL QUALIFICATION:-**

- a) Minimum average annual turnover of **Rs 2,00,000. (Rupees Two Lakh)** only calculated as total certified payments received for contracts in progress or completed, within the last 3 (Three) Years, ending 31st March of the previous financial year. Certified Balance sheet must be furnished as a proof of annual turnover.

3. Current bank solvency certificate must be submitted to show the bidder's financial position.

- a) The contractor shall make good at his own cost and to the satisfaction of AEGCL all defects, or other faults which may appear during the defect liability period.
In default, AEGCL may employ and pay other agency or persons to amend and make good such damages. Losses and expenses consequent thereon or incidental there to shall be made good and borne by the contractor, failing which the same shall be recoverable from the payment due to the contractor and performance guarantee. In the event of amount due and performance guarantee being insufficient, the balance amount will be recovered from the contractor from the amount due or retained for other works executed in AEGCL.

4. **ACCEPTANCE OF BID AND CONTRACT AGREEMENT:-**

- a) An agreement shall have to be drawn on non-judicial stamp of appropriate value with AEGCL by the selected Contractor in AEGCL's General Conditions of Supply and Erection 2009 of contract within 10 (ten) days from the date of issue of the LOI.

Wherever there is any variation in between the conditions of AEGCL's General Conditions of Supply and Erection 2009 and the above terms & conditions, this bid conditions will supersede the conditions of AEGCL's General Conditions of Supply and Erection 2009.

5. **PAYMENT TERMS:-**

- a) No advance/Mobilization advance shall be made in this contract.
b) No claim for interest shall be entertained by AEGCL.
c) Final bill must contain the original site register.
d) Final payment shall be released to the contractor only after completion of the work in all respect and final acceptance by AEGCL.
e) Payment is subject to availability of specific fund.
f) The Bidder / Firm will have to be submitted the following Net Banking details.

- Banker's Name & Branch
- Account No
- Banker's address
- Banker's IFSC Code
- Banker's RTGS Code

6. **WARRANTY:-**
- a) The term period of warranty shall mean the period of 18 months from the date of supply of the equipments or 12 month from the date of installation of the equipments, whichever is earlier.
7. **EXTENSION OF TIME:-**
- a) Time is the essence of the contract. No extension of time shall normally be allowed except on valid and genuine ground.
8. **CONTRACTUAL FAILURE, LIQUIDATED DAMAGE AND PENALTY:-**
- a) Liquidity Damages 1.0% (one percent) of the amount of delayed work per week subjected to the maximum 10 % of the contract value.
9. **TERMINATION OF CONTRACT:-**
- a) If the performance of the contract is not satisfactory and not corrected within 15 days of receiving notice, then employer shall be at liberty to terminate the contract and get the work executed through other means at the risk and cost of the Contractor.
10. **FORCE MAJEURE CONDITION**
- a) Force Majeure condition shall be considered as any circumstances beyond reasonable control of the party claiming relief, including but not limited to strikes, lockout, civil commotion, riot insurrection, hostilities, mobilization, war, fire, flood, earthquake, malicious damage or accidents could entitle contractor to extension time. Any such delay should intimated within 10 (ten) days from the beginning of such delay to consider/approved, any claim without prior information may not be considered under force Majeure.
11. **SETTLEMENT OF DISPUTE AND ARBITRATION:-**
- a) Any dispute arising out of the contract will be first settled bilaterally between AEGCL and Contractor. In case, dispute cannot be settled bilaterally, it will be referred to arbitration. The contractor shall not stop the work during settlement of any dispute. All disputes shall be subjected to the jurisdiction of District Court of respective District of work.

Section - C Purchaser's Requirements

3.1.0 SCOPE

The brief description of scope of scope covered under this Bidding Document is furnished below:

- a) Supply and delivery of Battery Bank and Charger.
- b) Arrangements of any permits required for transportation and movement of supplied materials. However, AEGCL shall assist as far as practicable in the process.
- c) Transit insurance and insurance during storage at site till commissioning shall be in the scope of the contractor.

3.2.0 TECHNICAL SPECIFICATION

This section of the specification covers the design, manufacture, and testing at manufacturer's work, of stationary type sealed, Valve Regulated Lead Acid Battery Bank, Dual FCBC Battery Charger complete with all required accessories.

These equipments are to be complete in every respect, details to the functions designated to the entire satisfaction of the purchaser. It is required that the supplier accepting the contract agrees to furnish all apparatus, appliances and material whether specifically mentioned or not but which may be found necessary to complete, to perform and testing any of the herein specified equipment (s) for compliance with the requirements implied without extra charges. The erection/maintenance tools and specific tools if any will also form part of supply.

3.3.0. General Technical Requirement

All the materials/components used in Battery Chargers and Valve Regulated Lead Acid Battery(VRLA) shall be free from flaws and defects and shall conform to relevant standards and good engineering practices:

Bidder shall select number of cells, float and Boost voltage to achieve requirements as specified in clauses hereafter:

3.3.3. BATTERY BANK

3.3.3.1. TYPE AND RATING

- i) Stationary type, sealed, valve regulated lead acid battery bank (approved by AEGCL like **Exide/Amara raja etc.**) Suitable for operation on 110 Volts D.C. system to meet loads like emergency lighting, control and signaling circuits, relays, breaker operations, circuit breaker spring charging, indicating circuits, etc. shall be required. The stationary battery shall comply with the provisions of IS: 15549/IEC 60896.
- ii) The Ampere-hour capacity of the battery bank at 27°C at 10 hours discharge rate shall be 300 AH.
- iii) The nominal voltage of the battery bank shall be 110 Volts D.C.
- iv) The number of cells in a complete battery bank set shall be 55 plus 2 spares.
- v) The maximum voltage during float operation shall not be more than 121 V.
- i) Minimum voltage available when no charger is working and battery fully discharged up to 1.85 V per cell, shall not be less than 99 V.

3.3.3.2. MARKING AND PACKING: MARKING:

The following information shall be indelibly and durably marked on the outside of the cell.

- (a) Nominal Voltage
- (b) Manufacturer's name, type and model name.
- (c) AH capacity at 10 hour rate.
- (d) Voltage for float operation at 20 deg. C with tolerance of (+/-) 1%.
- (e) Month & year of manufacturer
- (f) Country of origin.
- (g) S.No. of cell/cell No.

PACKING:

The cells shall be suitably packed so as to avoid any loss or damage during transit.

3.3.3.3. INSTRUCTION MANUAL:

The manufacturer shall supply one copy of instructions manual for initial charging (ifrequired)/treatment, and routine maintenance during service, with each and every battery set. The manufacturer shall supply 5 copies of instructions manual to the purchaser.

The following information shall be provided on, the instruction cards.

- (a) Designation of cell or battery
- (b) Ampere hour capacity.
- (c) Nominal voltage
- (d) Manufacturer's instructions for charging
- (e) Voltage for float operation at 20 deg. C with tolerance (+/-) 1%.
- (f) Maintenance instructions
- (g) Environmental & safety provisions required.

3.3.3.4. DRAWINGS:

The tenderer will submit the detailed dimensional drawings for battery sets including stands.

3.3.3.5. ACCESSORIES:

Each battery set shall be supplied complete with all necessary accessories viz. stand, inter connections, cell no. Plates with sticker, multi meter complete with leads, spanners.

3.3.3.6. BILL OF MATERIAL:

The manufacturer shall also have to furnish the bill of material used in battery set.

3.3.4. BATTERY CHARGING EQUIPMENTS

3.3.4.1. GENERAL DESCRIPTION

The Battery Chargers as well as their automatic regulators shall be of static type and shall be Compatible with offered VRLA batteries. The battery charging equipment shall have following two separate Boost-cum Trickle Charger sections:

- a. Section-1: Float Charger Section
- b. Section-2: Float-cum-Boost Charger Section

Each section shall have its own rectifier transformer, Rectifier Bridge and other equipment so that each section can operate independent of each other.
 The Charger shall regulate the float/boost voltage in case of prescribed temperature rise of battery as per manufacturer's recommendation to avoid thermal runaway. Necessary temperature sensors shall be provided in mid location of battery banks and shall be wired up to the respective charger for feedback control. The manufacturer shall demonstrate this feature during testing of each charger.

3.3.4.2. CHARGER RATING

1. Section-1: Float Charger Section (FC):

- (i) Input Voltage : 415+/- 10% volts three phase, 4 wire, 50 Hz A.C.
- (ii) Output Voltage : 110 Volt (Nominal).
- (iii) Output Voltage Range :2.13 to 2.27 Volt per cell (Continuously Settable)
- (iv) Total Output DC Current : 25 Amp

2. Section-1: Float cum Boost Charger Section (FCBC):

- (i) Input Voltage : 415+/- 10% volts three phase, 4 wire, 50 Hz A.C.
- (ii) Output Voltage : 110 Volt (Nominal)
- (iii) Output Voltage Range :2.13 to 2.50 Volt per cell (Continuously Settable)
- (iv) Total Output DC Current : 85 Amp

SCHEDULE – 3.1

GUARANTEED TECHNICAL AND OTHER PARTICULARS (To be filled in by Bidder and shall be furnished with the Technical Bid)

1.0 BATTERY

SL. No.	Description	Particulars
(a)	Name & Address of Supplier & Manufacturer	
(b)	Manufacturer's type designation	
(c)	Capacity in ampere hour (at 27° C, C10 to 1.75 ECV)	
(d)	Nominal cell voltage (volts)	
(e)	No. of cells	
(f)	Capacity at different rates of discharge	
	(a) 1 hour	
	(b) 2hour	
	(c) 3 hour	
	(d) 5 hour	
(e) 8 hour		
(g)	Ah efficiency	
(h)	Wh efficiency	
(i)	Maximum short circuit current capacity	
(j)	Self discharge per week	
(k)	Cyclic life of the battery @ 27° C	
(l)	Service life expectancy	
(m)	Recommended Maximum period of storage	
(n)	Positive Plates	
	(a) No of plate per cell	
	(b) Type of plate	
	(c) Total surface area of plate	
	(d) Grid Material	

SL. No.	Description	Particulars
(o)	Negative Plates	
	(a) No of plate per cell	
	(b) Type of plate	
	(c) Total surface area of plate	
	(d) Grid Material	
(p)	Material of Container	
(q)	Type of separator	
(r)	Terminal	
(s)	Safety valve	Opening pressure - Closing pressure -
(t)	Painting Battery racks	
(u)	Type of material	
(v)	Insulators material (for racks and cells)	
(w)	Complete weight of the cell	
(x)	Net weight of battery bank	
(y)	Overall dimensions of battery- bank	
(z)	Method of connection between cells	
(aa)	Protection for terminals	
(bb)	Recommended Charging	
	a) Float Mode Charging	(i) Voltage (ii) Current
	b) Boost Mode Charging	(i) Voltage (ii) Current
(cc)	Time required to charge the battery from fully discharged condition to 90% SOC in boost mode at 27°C	
(dd)	Amount and specific gravity of electrolyte per cell required for first filling at 27°C	
(ee)	Specific gravity of electrolyte when fully charged at 27°C	
(ff)	Maximum electrolyte temperature that cell can withstand continuously without injurious effects	
(gg)	Short circuit current at Battery terminals	
(hh)	Time for which the battery can withstand short circuit at terminals	
(ii)	Internal resistance of each cell	
	i) Full charged condition	
	ii) Fully discharged condition	

2.0 BATTERY CHARGER

SL. No.	Description	Particulars
1.0	Name & Address of Manufacturer	
2.0	Standard applicable	
3.0	Current rating of Charger	
4.0	Type of transformer used for charger	
5.0	Rating of the transformer	
6.0	Voltage ratio of the transformer	
7.0	Phase	

8.0	Frequency	
9.0	Winding connection	
SL. No.	Description	Particulars
10.0	Class of insulation	
11.0	Impedance of the transformer	
12.0	Reference standard	
13.0	Type of charger control	
14.0	Whether over current/over voltage features provided ?	
15.0	Facilities for boost charging	
16.0	Types of alarms	
17.0	Type of protection against short circuit and overloads	
18.0	Type of protection at charger's output terminals	
19.0	Protection for thyristor if installed	
20.0	Output voltage range under (preset values)	
	(a) Float Charger Section	
	(b) Boost Charger Section	
21.0	The output controllable current range	
22.0	Max. current and voltage output of the charger	
23.0	Protection against overcharging	
24.0	Details of Automatic Voltage Regulator	
25.0	Manual suitable pots for controlling maximum current and voltage at charger's output	
26.0	Kind of indicating meters provided on the charger's panel	
27.0	Blocking diode installed	
28.0	Whether necessary annunciations and functional status are provided for microscada /SAS?	
29.0	% of Ripple of Output voltage	
30.0	Whether forced ventilations provided.	

BILL OF QUANTITY

Price Bid (To be provided in separate envelope)

Name of the work: Supply of 110 Volt, 300Ah battery bank & Battery Charger for 132kV GSS, AEGCL, Golaghat.

Rates quoted should be inclusive of GST

For one GSS.

Sl. No.	Description of Work	Unit	Quantity	Rate (in Rs./ Unit)	Amount (in Rs.)
1	110 Volt, 300Ah, VRLA Battery Bank with Battery stand and all other fittings and accessories as per specification.	Set.	01		
2	110 Volt, 300Ah, Battery Charger with all fittings and accessories.	No.	01		
Total Rs.					
GST @ 28% & 18% Rs.					
Grand Total Rs.					

In Words

Appendix-1

COVERING LETTER (ON THE BIDDERS LETTER HEAD)

To,
The Dy. General Manager,
UAT&T Circle, AEGCL,
Garmur, Jorhat-07

Sub: Submission of Tender.

Ref: -

1. NIT No:
2. Name of work:-

Sir,

Having examined the terms & conditions, technical specifications, detailed items of work etc. as well as acquainting myself/ourselves with site of work, surroundings to get the required materials etc. I am/we are to submit herewith my/our tender for the above mentioned work. My/our rates are quoted as per the specification laid down in the schedule of items of work.

I /We clearly understand that all materials, tools and plants, machineries, labours, testing of material, storage, haulage etc. required in the work shall have to be arranged by me/us from my/our own resources in the events of allotment of the work to me/us.

I /We also clearly understand that in the event of acceptance/approved of my/our tender, the work shall have to be executed strictly as per specifications and the same shall have to be completed in all respects within the stipulated time failing which I am/We are liable to be penalized as per rules laid down in Tender document as well as agreement thereof.

Appendix-2

PROFILE OF THE BIDDER

Hard copy of the following documents to be submitted with Techno-Commercial Bid.

Sl. No.	Particulars	To be filled by Bidder
a)	Name of the Bidder	:-
b)	Registration with Memorandum of Association	:-
c)	PAN	:-
d)	GST Registration number	:-
e)	Postal Address	:-
	House No.	:-
	Lane	:-
	Street	:-
	Town/Village	:-
	Post Office	:-
	P.S.	:-
	District	:-
	Pin code	:-
f)	Telephone Number	:-
	Mobile No.	:-
	E-Mail Address	:-
	Website	:-
g)	Name(s) of the Owners / Directors/Partners	:-
h)	Name of the Banker with Address and Telephone Number	:-
i)	Contact Person Details <i>(Furnish here name of that person with whom AEGCL may get in touch for more information or clarifications)</i>	Name: - Designation: - Mobile Number: - Email Address:-