

NOTICE INVITING TENDER

No: AGCL/PROJ/PMC-GHT/UPS/2023/140

Dated 27.10.2023

Ref: A. Tender Reference No. AGCL/PROJ/PMC-GHT/UPS/2023/137

B. Tender ID: 2023_ICD_33207_1

Assam Gas Company Limited, Duliajan invites bids under two bid systems (Part-I, i.e. Techno-commercial bid and Part-II, i.e. Price bid) from OEM of Uninterrupted Power Supply (UPS) system or Authorized distributors/ Authorized Dealers/ Indian Companies of OEM of Uninterrupted Power Supply (UPS) system dealing with UPS installation works fulfilling related Regulatory & Statutory norms.

- ❖ Validity: 120 Days (One Hundred and Twenty Days) from the schedule date of Techno-Commercial bid Opening.
- ❖ **Tender Documents are available at E-procurement portal www.assamtenders.gov.in and should be submitted online only.**

1) NAME AND SCOPE OF WORK: Supply, Installation, Testing and Commissioning of brand new uninterrupted power supply (UPS) system with battery bank and related accessories at various locations of Assam Gas Company Limited within Golaghat District in the State of Assam under NGN Project.

2) TENDER PROCESSING FEE: Rs 5,200.00 (Rupees Five Thousand Two Hundred only) to be paid through RTGS/ NEFT/ internet banking in Assam Government e-Procurement System.

3) EARNEST MONEY: Rs. Rs 5,20,000.00 (Rupees Five Lakh Twenty Thousand only) to be paid through RTGS/ NEFT/ internet banking in Assam Government e-Procurement System.

4) Time of completion: Supply & Delivery of Materials at site with all accessories: 180 (One Hundred and Eighty) days from the date of issue of W.O. by Fax/Email etc

Installation, Testing & Commissioning etc. at site: 30 (Thirty) days from the date of acceptance of materials by AGCL at site or formal handing over of site whichever is earlier.

5) Assam Gas Company Limited reserves the right to accept or reject any or all tenders without assigning any reason thereof.

Sd/-

Managing Director
Assam Gas Company Limited

ASSAM GAS COMPANY LTD
P.O. Duliajan, Dist.: Dibrugarh, Assam-786 602
Phone:0374-2800452, Fax-2800557

INVITATION of e-BID UNDER SINGLE STAGE TWO BID SYSTEM

Ref. No: AGCL/PROJ/PMC-GHT/UPS/2023/137

Dated 16.10.2023

Sub.: TENDER NO./IFB NO. AGCL/PROJ/PMC-GHT/UPS/2023/137 Dated 16.10.2023 FOR SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF BRAND NEW UNINTERRUPTED POWER SUPPLY (UPS) SYSTEMS WITH BATTERY BANK AND RELATED ACCESSORIES AT VARIOUS LOCATIONS OF ASSAM GAS COMPANY LIMITED WITHIN GOLAGHAT DISTRICT IN THE STATE OF ASSAM UNDER NGN PROJECT.

Dear Sirs,

Assam Gas Company Ltd. (AGCL) hereinafter called as Owner/AGCL, is a six decades old Natural Gas transmission and distribution company, wholly owned by the Govt. of Assam with its registered office at Duliajan, Dist.: Dibrugarh, Assam 786 602. The company transports Natural Gas through its integrated pipeline infrastructure to several market segments i.e. Power, Fertilizer, petrochemicals, Industrial, Commercial and Domestic consumers primarily located in upper Assam.

1.0 In connection with its operations, AGCL invites e-tenders from reputed and technically competent Manufacturer/authorized dealer/Reseller/Channel Partners for 'Supply, installation, testing and commissioning of brand new uninterrupted power supply (UPS) system with battery bank and related accessories at various locations of Assam Gas Company Limited within Golaghat district in the State of Assam as mentioned in the price bid. One complete set of Bid Document covering AGCL's IFB for procurement of above is uploaded in e-tender website, <https://assamtenders.gov.in> and AGCL's website. You are invited to submit your most competitive bid on or before the scheduled bid closing date and time through Assam Govt's e-procurement portal. For your ready reference, few salient points of the IFB (covered in detail in the Bid Document) are highlighted below:

IFB No./ Tender No.	AGCL/PROJ/PMC-GHT/UPS/2023/137 Dated 16.10.2023
Type of IFB.	Single Stage Two Bid System
Tender Processing Fee*	Rs. 5,200.00
Pre- bid conference	07.11.2023 AT 1000 Hours IST at AGCL Office, Duliajan. Meeting link for online participants will be shared if requested by bidders. Meeting request must be sent for online participation in the following mail id

	agcl_pnu@agclgas.com cc: parag.das@agclgas.com
Bid Closing Date & Time.	As indicated in E-tender portal
Bid(Technical) Opening Date & Time	As indicated in E-tender portal
Priced Bid Opening Date & Time.	Will be intimated to the eligible Bidders nearer the time
Bid Submission Mode.	Bid to be uploaded on-line in E-Procurement portal
Bid Opening Place/ Bids to be addressed to.	Managing Director Assam Gas Company Limited Duliajan, Dist. Dibrugarh Pin- 786602(Assam)
Bid Validity.	120 days from bid closing date
Bid Security Amount*	Rs.5,20,000.00
Amount and Validity of Performance Security.	Performance security @ 10 % (Ten percent) of total order value is applicable against this contract. Validity: 3(three) months beyond Contractual Defect Liability Period/warranty period
Delivery schedule	Supply & Delivery of Materials at site with all accessories: Within 180 (One Hundred and Eighty) days from the date of issue of W.O. by Fax/Email etc. Installation, Testing & Commissioning etc. at site: 30 (Thirty) days from the date of acceptance of materials by AGCL at Golaghat sites or formal handing over of site whichever is earlier.
Contact Details from AGCL	Parag Kumar Das Sr. Manager (Elect) Email: agcl_pnu@agclgas.com CC: parag.das@agclgas.com Mobile: 9435039848

***Vide govt. of Assam notification No. FEB. 269/2017/27 Dtd. Dispur the 21st August 2019. EMD & Tender processing fees should be paid through online by logging into Assam govt. e- tender website, [https:// assamtenders.gov.in](https://assamtenders.gov.in) either through : Option1- Online payment or Option2 - NEFT/ RTGS.**

LIST OF SECTIONS & ANNEXURES APPLICABLE		
Section A	:	Instruction to bidders & General terms and conditions of order
Annexure A1	:	Bid Submission Proforma
Annexure A2	:	Price Bid Proforma
Annexure A3	:	Exceptions/deviations Proforma
Annexure A4	:	Bidders' past performance Proforma
Annexure A5	:	Authorisation for attending tender opening Proforma
Annexure A6	:	TPI Declaration Proforma
Annexure A7	:	Power of Authority Proforma
Section-B	:	Specification/ scope of work
Annexure B-1	:	Technical Data Sheet for UPS
Annexure B-2	:	Technical Data Sheet for Storage Battery
Section-C	:	Bid Evaluation & Rejection Criteria
Annexure C1	:	Format of undertaking by Bidders towards submission of authentic information/documents
Annexure C2	:	Format of Authorization & Backup Warranty by Manufacturers to Sole Selling Agent/Dealer/ Distributor/Supply House
Annexure C3	:	Format for certificate of annual turnover & net worth
Annexure C4	:	Certificate of Compliances to financial criteria
Section-D	:	Order Acceptance Form
Section-E	:	Performance Security Proforma
Section-F	:	Restrictions on procurement from a bidder of a country sharing land border with India
Annexure F1	:	Format for Undertaking by Bidders towards compliance of office memorandum F. No. 6/18/2019-PPD dated 23rd July, 2020 (Public Procurement no. 1) issued by Department of Expenditure, Ministry of Finance, Govt. of India
P106A-00-DWG-E004	:	Equipment layout drawing for porta cabin

Exemption from payment of Tender Fee: MSE Units (Manufacturers/ Service Providers only and not their dealers/distributors) who are already registered with District Industry Centers or Khadi & Village Industries Commission; or Khadi& Village Industries Board or Coir Board or National Small Industries Corporation; or Directorate of Handicrafts & Handloom or any other body specified by Ministry of MSME are exempted from payment of Bid Security (EMD) irrespective of their monetary limit, product category and capacity mentioned in their registration, subject to submission of valid

MSE registration certificate issued by appropriate authority.

For availing benefits under Public Procurement Policy (Purchase preference), the interested MSE Bidders must ensure that they are the manufacturers of the tendered item(s) and registered with the appropriate authority for the said item(s).

Categorization and various Criteria applicable to MSE bidders shall be guided by the Gazette Notification No. CG-DL-E-26062020-220191 dated 26.06.2020, Amended vide Gazette Notification No. CG-DL-E-160-62021-227649 dated 16.06.2021 and No. CG-DL-E-19012022-232763 dated 19.01.2022 issued by MINISTRY OF MICRO, SMALL AND MEDIUM ENTERPRISES.

The bidder claiming as MSE status (MSE-General, MSE-SC/ST, MSE - Woman) against this tender has to submit the following documents for availing the benefits applicable to MSEs:

- i. Udyam Registration Number with Udyam Registration Certificate; OR
- ii. Proof of registration with District Industry Centers or Khadi and Village Industries Commission; or Khadi and Village Industries Board or Coir Board or National Small Industries Corporation or Directorate of Handicrafts and Handloom or Udyog Adhar registration or registration with any other body specified by Ministry of MSME,

Note: In case bidding MSE is owned by Schedule Caste or Schedule Tribe entrepreneur or Woman Entrepreneur, valid documentary evidence issued by the agency who has registered the bidder as MSE owned by SC/ST entrepreneur/ Woman Entrepreneurs should also be enclosed.

2.0 RESTRICTIONS ON PROCUREMENT FROM A BIDDER OF A COUNTRY SHARING LAND BORDER WITH INDIA:

It is for information of all Bidders that Office Memorandum No. F.No.6/18/2019-PPD dated 23.07.2020 issued by Public Procurement Division under Department of Expenditure of Ministry of Finance will also be applicable against the tender. Therefore, all bidders are requested to be guided by the **Cluses** stipulated in the enclosed **Section-F** of this tender. In this respect, the format of **Undertaking** to be submitted by the bidders is given vide **Annexure-F1** of this tender.

3.0 Prospective bidders or their authorized representative(s) may visit the installation sites for preliminary assessment of the requirement of the service preferably prior to Pre-Bid Conference at their own expenses.

4.0 A pre-Bid conference will be held at AGCL H.O. Duliajan, Dist. Dibrugarh, Assam, India on the dates as indicated in the online tender for providing clarifications to prospective bidders on Bid Rejection Criteria (BRC)/Bid Evaluation Criteria (BEC), Terms of Reference/Technical Specifications, Terms and conditions of the Tender to enable them to understand the exact service requirement of the Company.

At the most 2 (two) representatives from each prospective bidder shall be allowed to participate in the pre-bid conference. Meeting may also be attended on virtual mode upon request from bidders.

Prebid queries must be sent at least three days before the scheduled Prebid meeting to the email id “agcl_pnu@agclgas.com”.

5.0 Obligations of proactive disclosure:

5.1 Procuring authorities as well as agencies are obliged under **Code of Integrity for Public Procurement (CIPP)** to suo-moto proactively declare any conflicts of interest (pre-existing or as soon as these arise at any stage) in any procurement process or execution of contract. Failure to do so would amount to violation of this code of integrity; and

5.2 Any bidder must declare, whether asked or not in a bid document, any previous transgressions of such a code of integrity with any procuring entity in any country during the last three years reckoned from the original bid closing date or of being debarred by any other procuring entity. Failure to do so would amount to violation of this code of integrity

5.3 To encourage voluntary disclosures, such declarations would not mean automatic disqualification for the bidder making such declarations. The declared conflict of interest may be evaluated and mitigation steps, if possible, may be taken up by the procuring authority. Similarly, voluntary reporting of previous transgressions of code of integrity elsewhere may be evaluated and barring cases of various grades of debarment, an alert watch may be kept on the bidder’s actions in the tender and subsequent contract.

6.0 The Company reserves the right to accept or reject any or all the offers without assigning any reason thereof.

7.0 AGCL now look forward to your active participation against this Tender.

Thanking you

Sd/-

**MANAGING DIRECTOR
ASSAM GAS COMPANY LIMITED**

Section-A

INSTRUCTION TO BIDDERS & GENERAL TERMS AND CONDITIONS OF ORDER

A.0 DEFINITIONS & INTERPRETATIONS:

The following words and expressions mentioned in the Tender/Purchase Order/Contract shall have the meaning hereby assigned to them, except where the PO/Contract requires otherwise by context:

A.1 Applicable Taxes: Shall mean all statutory taxes, duties, cess, fees imposed upon the ordered item(s).

A.2 Bidder (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts): Shall mean an individual or a Firm or any other Legal Entity or combination of Legal Entities, incorporated in India or abroad who has made proposal / submitted bid with objective of concluding a contract with the Purchaser. The term Bidder includes successor and permitted assigns of the bidding entity.

A.3 Bid (including the term 'tender', 'offer', 'quotation' or 'proposal' in certain context): Shall mean the proposal along with supporting documents submitted by the bidder for consideration by the Purchaser.

A.4 Purchaser/Buyer/Company: Shall mean Assam Gas Company Limited (AGCL), a Govt. of Assam Undertaking, having its registered office at Duliajan786602, Assam, India. The term Purchaser includes successor and permitted assigns of AGCL.

A.5 Consultant (if engaged): Shall mean the person or persons, firm or company or corporation who are the consulting engineer to the Purchaser.

A.6 Drawings: Shall mean and include engineering drawing, sketches showing plans, section and elevation in respect of purchase order together with modification and revision thereof.

A.7 Specification: Shall mean and includes all technical specifications, description, statements of technical data, performance characteristics, standards (Indian as well as International) as applicable and as specified in the purchase order.

A.8 Purchase Order: Shall mean the written order/contract document issued by the Purchaser in acceptance of the Proposal/Bid submitted by the Bidder and all attachments/documents referred to, together with all terms and conditions thereof including all subsequent amendments thereto.

A.9 Purchase Order Price: Shall mean the price payable by the Purchaser to the Seller with respect to the purchase order/contract for full and proper performance of its contractual obligations.

A.10 Seller/Supplier/Contractor: Shall mean the person, firm or company or corporation; with whom the purchase order / contract is entered into by the Purchaser for the supply of equipment, materials, stores and services. The term Seller includes its successor and permitted assigns.

A.11 Domestic Bidder/Supplier/Seller/Contractor: Contractor, manufacturer, supplier, distributor and/or consultant of items that are delivered or manufactured or fabricated items/equipment within India only.

A.12 Foreign Bidder/Supplier/Seller/ Contractor: Contractor, manufacturer, supplier, distributor and/or consultant of items that are delivered or manufactured or fabricated items/equipment outside India.

General Purchase Conditions:

A.13 “Imported Material(s)” mean(s) the materials to be fabricated, manufactured or procured by the Vendor outside India for shipment to India under the Purchase Order.

A.14 “Indigenous Material(s)” mean(s) materials to be fabricated, manufactured or procured by the Vendor within India for supply under the Purchase Order.

A.15 Goods: Shall mean the articles, materials, equipment, design and drawings, data, documents and other property to be supplied by the Seller to complete the purchase order/contract.

A.16 Delivery: In case of domestic/indigenous suppliers, the delivery shall mean the date of despatch document (viz., LR/GR/RR/Airway Bill etc.) or the date of arrival of ordered items at destination as specified in the purchase order. In case of overseas/foreign suppliers, the delivery term specified in the purchase order shall be interpreted as per INCOTERM 2020.

A.17 Service: Shall mean erection, installation, testing, commissioning, provision of technical assistance, training and other such obligation of the Seller covered under the purchase order/contract.

A.18 Site: Shall mean the place or the premises at which the goods and / or services have to be supplied, erected and commissioned.

A.19 Completion Date: Shall mean the date on which all the contractual obligations of the Seller are fulfilled. In case of supply involving installation and commissioning, completion date shall mean the date on which the goods are successfully commissioned by the Seller and accepted by the Purchaser.

A.20 Inspector: Shall mean a representative of the purchaser / consultant or a third party appointed by the Purchaser / consultant to inspect goods, equipment, stage-wise as well as final before despatch at the Seller’s works and on receipt at site as per terms of the purchase order.

A.21 Test: Shall mean such process to be carried out by the Seller as prescribed in the purchase order/contract or considered necessary by the

Purchaser to ascertain quality, workmanship, performance and efficiency of the equipment or part thereof.

A.22 Test on Completion: Shall mean such test as mentioned in the purchase order/contract to be performed by the Seller before the equipment is taken over by the Purchaser.

A.23 Language: Shall mean the language in use for communication, instruction, drawings, notes, bids etc. and the same shall be English only.

A.24 Day: Shall mean a calendar day of twenty-four (24) consecutive hours beginning at 00:00 hours with reference to local time at the respective location.

A.25 Working day: Means any day which is not declared to be holiday by the purchaser.

A.26 Metric System: The units of measurement should be in metric system.

A.27 Gross Negligence: Means an act or failure to act (whether sole, joint or concurrent) by a party that was intended to cause, or which was undertaken with reckless disregard of, or wanton indifference to, the harmful consequences such party knew or should have known such act or failure would have had on the safety or property of another person, but shall not include any error of judgment or mistake made by such party in the exercise in good faith of any function, authority or discretion conferred on the party under this agreement.

A.28 Wilful Misconduct: Means intentional disregard of good and prudent standards of performance or proper conduct under the contract with knowledge that it is likely result in any injury to any person or persons or loss or damage of property of the Purchaser or Third Party.

A.29 Confirmation of Order:

a) On acceptance of the offer, Seller shall be communicated through e-mail on placement of Firm Order. The Seller must communicate the acceptance of the Purchase Order within two weeks or within such time, as specified in the Purchase Order, from the date of receipt of the same. The acceptance of the Purchase Order by the Seller shall form the concluded contract.

b) The Purchaser reserves the right to cancel the order if the Supplier does not confirm acceptance of the order (confirmation) in writing within two weeks of receipt or within such time, as specified in the Purchase Order. Refer Section D for order acceptance.

c) Any amendments or additions or alterations to the order shall only be effective if the Purchaser confirms such in writing. No verbal agreements amending the terms of this order are valid unless both the Purchaser and the Supplier duly confirm them in writing. However, in the event such amendment is made based on the request of the Supplier, no separate confirmation is required from the Supplier and the amendment is deemed to

have confirmation from the Supplier, unless the Supplier within one week of receipt of amendment order, contested the amendment in writing.

1.0 ELIGIBILITY TO BID:

1.1 The bid should be from Original Equipment manufacturers.

1.2 However, the bids from sole selling agents / authorized distributors / authorized dealers / authorized supply houses can also be considered, provided such bids are accompanied with back-up authority letter (valid at the time of bidding) from the manufacturer authorizing them to market their product. AGCL reserves the right to reject offers without back up authority letter from manufacturer.

1.3 SALE OF TENDER DOCUMENTS TO FIRMS WITH WHOM BUSINESS HAS BEEN BANNED / SUSPENDED: Firm(s) to whom no further business is to be given or dealings with whom have been banned / suspended are not eligible to participate in the tender and any bid received from such firm(s) shall not be considered and will be returned un-opened to the concerned firm(s).

2.0 TRANSFERABILITY OF BID DOCUMENTS

2.1 The Bid documents are non-transferable. The bid can only be submitted in the name of the bidder in whose name the bid document has been issued.

2.2 Unsolicited offers will not be considered and will be straightway rejected.

2.3 Employees of AGCL are prohibited from submitting and also from getting others to quote on their behalf.

3.0 TENDER PROCESSING FEE:

3.1 For Limited tenders, no tender processing fee will be required.

3.2 In case of press/open tenders, prospective bidders can register themselves in e-portal after payment of requisite non-refundable tender processing fee. The bidders shall be able to create the bid online only after payment of tender processing fee. AGCL will not take any responsibility for any delay/ late in receipt of Tender Processing Fee.

3.3 EXEMPTION OF TENDER FEE: Please refer Forwarding letter against this Tender.

3.4 CANCELLATION OF TENDER - REFUND OF TENDER PROCESSING FEE: The tender PROCESSING fee shall be refunded to the concerned bidder in the event, a particular tender is cancelled. In case of e-procurement tenders, wherever tender fee is required to be refunded, refund of the same shall be made to the bank account No. /card used for making payment towards TENDER PROCESSING FEE.

4.0 COST OF BIDDING:

4.1 The Bidder shall bear all costs associated with the preparation and submission of its bid and AGCL will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

4.2 The Bidder is expected to examine all instructions, forms, terms and specifications in the bidding documents. Failure to furnish all information required by the bidding documents or submission of bid not substantially responsive to the bidding documents in every respect will be at the Bidder's risk and may result in the rejection of its bid without seeking any clarifications.

5.0 AMENDMENT TO BIDDING DOCUMENTS:

5.1 At any time prior to the bid closing date, AGCL may for any reason, whether at its own initiative or in response to clarifications requested by the prospective bidder(s), modify the bidding document by amendment(s). Amendments to the NIT after its issue will be published on AGCL's website and e-tender portal only. Revision, clarification, addendum, corrigendum, time extension etc. to the tender will be hosted on AGCL's website and e-tender portal. Prospective bidders are requested to visit website regularly to keep themselves updated. (Amendment).

5.2 AGCL may at its discretion if considered necessary, extend the deadline for the submission of bids.

6.0 CONTENTS OF OFFERS:

6.1.1 The Prices along with price related conditions shall be filled online in the Price-Bid screen. Any documents sought to be attached with price bid shall also be attached at appropriate place must be digitally signed. Unpriced techno-commercial Bids shall be submitted in the prescribed bid proforma as per Appendices A1 to A7 and Appendices C1 to C4. The above Appendices shall be duly filled in without any alteration to AGCL's proforma. The above Appendices along with all other techno-commercial documents other than price details to be submitted with unpriced bid as per tender requirement should be placed in the 'unpriced' bid folder.

6.1.2 The bid and all attached documents should be digitally signed using digital signatures issued by an acceptable Certifying Authority (CA) as per Indian IT Act 2000 before bid is uploaded. If any modifications are made to a document after attaching digital signature, the digital signature shall again be attached to such documents before uploading the same. The authenticity of above digital signature shall be verified through authorized CA after bid opening and in case the digital signature is not authorized the bid will be rejected. Bidder is responsible for ensuring the validity of digital signature and its proper usage by their employee.

6.1.3 The Bidders are advised in their own interest to ensure that all the points brought out in this tender document are complied with in their bid failing which the offer is liable to be rejected.

6.1.4 The bids can only be submitted in the name of the Bidder who have been permitted to participate in the bid. The bid papers, duly filled in and

complete in all respects shall be submitted together with requisite information and Sections. It shall be complete and free from ambiguity, change or interlineations.

6.1.5 The bidder should indicate at the time of quoting against this tender their full postal and Fax/Email addresses.

6.1.6 The bid including all attached documents shall be digitally signed by duly authorized representative of the bidding company as per below:

POWER OF ATTORNEY BY BIDDER FOR SUBMISSION OF BID AGAINST AGCL'S TENDER:

Power of Attorney to be issued by the bidder in favour of the authorized employee(s) , in respect of the particular tender, for purpose of signing the documents including bid, all subsequent communications, agreements, documents etc. pertaining to the tender and act and take any and all decision on behalf of the bidder (including Consortium). Any consequence resulting due to such signing shall be binding on the Bidder (including Consortium).

(I) In case of a Single Bidder, the Power of Attorney shall be issued as per the constitution of the bidder as below:

a) In case of Proprietorship: by Proprietor

b) In case of Partnership: by all Partner or Managing Partner

c) In case of Limited Liability Partnership: by any bidder's employee authorized in terms of Deed of LLP

d) In case of Public /Private Limited Company: PoA in favour of authorized employee(s) issued by Board of Directors through Board Resolution or by a designated officer authorized by Board to do so. Such Board Resolution should be duly countersigned by Company Secretary/MD/CMD/CEO.

(II) In case of a Consortium, Power of Attorney shall be issued both by Leader as well as Consortium Member(s) of the Consortium as per procedure defined herein above in favour of employee of Leader of Consortium. Further, the PoA should be valid till award of contract/ order to successful bidder.

6.1.7 The Bidder, in each tender for procurement of goods, will have to give a certificate in its offer, that the terms and conditions are acceptable to it in toto.

6.1.8 The bidders shall fill-in online the appropriate price schedule i.e. the net unit prices of the goods they propose to supply and other pricing details etc. as per the Pricing condition separately.

6.1.9. The bidders must quote the following prices/information:

- i) Firm unit Ex-Works price of the quoted items and Currency.
- ii) Firm Packing and forwarding component stating the place of despatch.
- iii) Firm Freight as required in the price schedule stating road/rail freight.
- iv) Any other Price component as applicable to the Tender.

6.2 AGCL will place order on FOR (destination) terms. Offered rate should be kept firm through delivery/ despatch.

6.3 GOODS & SERVICES TAX(GST):

6.3.1 CONTRACTOR shall provide all the necessary compliances/ invoice/documents for enabling AGCL to avail Input tax credit benefits in respect of the payments of GST which are payable against the CONTRACT. The CONTRACTOR should provide tax invoice issued under GST legislations for the goods and Services (indicating GST). Payment towards the components of GST shall be released by AGCL only against appropriate documents i.e.: Tax Invoice/Bill of entry for availing input tax credit (as applicable).

6.3.2 The tax invoices as per above provisions should contain all the particulars as required under the invoicing rules under the GST legislations, including, but not limited to the following:

- i. Name, Address and the GST Registration Number (under the relevant Tax Rules) of the Service Provider (CONTRACTOR)
- ii. Name and Address and GST Registration Number of the Service Receiver (Address of AGCL)
- iii. Description, Classification and Value of taxable service/goods and the amount of applicable tax (CGST, SGST, IGST, UTGST and cess)

6.3.3 In case of imported goods, CONTRACTOR/supplier is required to provide original Bill of Entry or copy of Bill of Entry duly attested by Custom authority.

6.3.4 The CONTRACTOR should mention the Place of supply in the invoice raised under GST Law.

6.3.5 AGCL would not accept any invoice without its GSTIN mentioned on the invoice

Note: CONTRACTOR who is under composition levy of the GST legislation would raise Bill of supply instead of Tax invoice, which will have GSTIN of supplier as well as AGCL.

6.3.6 The CONTRACTOR will be under obligation for charging correct rate of tax as prescribed under the respective tax laws. Further the CONTRACTOR shall avail and pass on benefits of all exemptions/concessions available under tax laws. Any error of interpretation of applicability of taxes/ duties by the CONTRACTOR shall be to CONTRACTOR's account.

6.3.7 In case of statutory variation in GST, other than due to change in turnover, payable on the contract value during contract period, the Supplier of Goods/ Services (Service Provider) shall submit a copy of the 'Government Notification' to evidence the rate as applicable on the Bid due date and on the date of revision.

6.3.8 Beyond the contract period, in case AGCL is not entitled for input tax credit of GST, then any increase in the rate of GST beyond the contractual delivery period shall be to Service provider's account whereas any decrease

in the rate GST shall be passed on to the AGCL.

6.3.9 Beyond the contract period, in case AGCL is entitled for input tax credit of GST, then statutory variation in applicable GST on supply and on incidental services shall be to AGCL's account.

6.3.10 Claim for payment of GST/ Statutory variation, should be raised within two [02] months from the date of issue of 'Government Notification' for payment of differential (in %) GST, otherwise claim in respect of above shall not be entertained for payment of arrears.

6.3.11 The base date for the purpose of applying statutory variation shall be the Bid Opening Date.

6.3.12 The CONTRACTOR will be liable to ensure to have registered with the respective tax authorities, wherever applicable and to submit self- attested copy of such registration certificate(s) and the CONTRACTOR will be responsible for procurement of material in its own registration (GSTIN) and also to issue its own Road Permit/ E-way Bill, if applicable etc.

6.3.13 In case rating of Contractor is negative/black listed after award of work for supply of goods/services, then AGCL shall not be obligated or liable to pay or reimburse GST to such vendor/Contractor and shall also be entitled to deduct/recover such GST along with all penalties/interest, if any, incurred by AGCL.

6.4 In no case AGCL shall bear any additional liability for the arrangement between bidder and its suppliers/sub-vendors for complying with 'local content'.

6.5 Income Tax /Service Tax on the value of the Services rendered by the Bidder/Seller in connection with installation/commissioning, raining etc. shall be deducted at source from the invoices at the appropriate rate under the I.T. Act &Rules from time to time.

6.6 Void.

6.7 STATUTORY VARIATION: Any statutory variation (increase/decrease) in the rate of GST/Custom Duty or any statutory levy after the closing date of tenders/revised priced bid, as the case may be, but within the contractual delivery/completion period will be to the account of AGCL subject to documentary evidence. However, any increase in GST/Custom Duty or any statutory levy after the expiry of the scheduled date of delivery shall be to the supplier's account.

6.8 THIRD PARTY INSPECTION (TPI) (When specifically called for in the tender):

6.8.1 Whenever inspection by AGCL's approved Third Party Inspection Agencies has been called for in the tender, Bidder must indicate the availability of the AGCL's approved Third Party Inspection Agencies in their area. AGCL reserves the right to inspect the material through any of the Third Party Inspection Agencies.

6.8.2 All-inclusive charges for Third Party Inspection (TPI) must be filled in on-line in the bid.

6.8.3 Offers without any mention about Third Party Inspection charges as specified above will be considered as inclusive of Third Party Inspection charges. When a bidder mentions Third Party Inspection charges as extra without specifying the amount, the offer will be loaded with maximum value towards Third Party Inspection charges received against the tender for comparison purposes. If the bidder emerges as lowest bidder after such loading, in the event of order on that bidder, Third Party Inspection charges mentioned by AGCL on the Purchase Order will be binding on the bidder.

6.9 SAMPLES (When specifically called for in the tender):

6.9.1 Bidder shall submit Samples of requisite quantity whenever called for. Each sample shall be sealed and have a card affixed indicating a) Bidder's name, address, contact Telephone No. & Email address b) Tender No. and Bid opening Date c) Product Name d) Item No. of the tender

6.9.2 Sample must be received on or before the Bid Closing Date failing which the offer will be rejected.

6.9.3 Bidders who have been exempted from submission of tender sample through specific communication from AGCL, need not submit any sample. However, they will be required to enclose a photocopy of the exemption letter along with their bid failing which their offers will be liable to be rejected.

6.10 DISCOUNT: Conditional and unsolicited discount will not be considered in evaluation. If any bidder offers suo-moto discount after opening of un-priced bids but before opening of price bids, such reduction / discounts shall not be considered for evaluation. However, if the bidder happens to be the lowest evaluated bidder without considering such discount then the benefit of discount will be availed at the time of award of work. In the event as a result of techno-commercial discussions or pursuant to seeking clarifications / confirmations from bidders, while evaluating the un-priced part of the bid, any of the bidders submits a sealed envelope stating that it contains revised prices; such bidder(s) will be requested to withdraw the revised prices failing which the bid will not be considered for further evaluation.

6.11 VARIATION IN QUANTITY AFTER INVITATION OF TENDER: In case of supply tenders, the tender can have a provision for variation of quantity at the time of placement of order up to +/- 20%. The bids, however, shall be evaluated based on the tendered quantity to decide the inter se ranking of the bidder.

6.12 TECHNICAL LITERATURE: Relevant technical literature must be submitted along with the offer whenever called for without which the offer would be liable to be rejected.

6.13 DELIVERY: Offer should be for delivery at site as indicated, with firm delivery date. If delivery is not specifically indicated by the bidder, it will be

construed that the delivery quoted is as per delivery indicated in our tender and will be binding on the bidder. The delivery will be counted from the date of receipt of the Letter of Intent (LOI)/Letter of Award (LOA) by the successful bidder.

6.14 VALIDITY OF BIDS: Validity of the bid shall be at least up to the validity mentioned in the tender document. If nothing is mentioned by the bidder in their offer, it will be presumed that the offer is valid as asked for in the tender document. Bids with lesser validity shall be rejected straightway.

6.15 WITHDRAWAL OF OFFER BY BIDDER: The bidder, after submission of bid may withdraw their bid prior to bid closing date & time. In case the due date of submission is extended even after receipt of some bids due to some special circumstances, the bidder who has already submitted bid has right either to withdraw or revise his bids, without forfeiting the EMD. After bid closing date in case any bidder withdraws their bid within the bid validity period, Bid Security will be forfeited and the party will be debarred for a period of 2 (two) years.

6.16 VAGUE AND INDEFINITE EXPRESSIONS: Any vague and indefinite expressions such as "Subject to prior sale", "Prices ruling at the time of dispatch", "Subject to availability of materials" etc. will not be considered.

6.17 FURNISHING FRAUDULENT INFORMATION/ DOCUMENT: If it is found that a Bidder has furnished fraudulent document/information, the Bid Security/Performance Security shall be forfeited and the party will be debarred for a period of 3(three) years from date of detection of such fraudulent act, besides the legal action. In case of major and serious fraud, period of debarment may be enhanced.

6.18 BACKING OUT BY BIDDER AFTER ISSUE OF LETTER OF AWARD (LOA)/LETTER OF INTENT(LOI): In case the Bidder does not accept the LOI/Purchase Order issued within validity of their offer, the Bid Security (wherever applicable) shall be forfeited and the firm shall be debarred for 2(two) years.

7.0 CLARIFICATION IN RESPECT OF INCOMPLETE OFFERS: Prospective bidders are advised to ensure that their bids are complete in all respects and conform to AGCL's terms, conditions and bid evaluation criteria of the tender. Bids not complying with AGCL's requirement may be rejected without seeking any clarification.

8.0 BID SECURITY (Applicable only in case of tenders wherever specifically mentioned):

Bidders shall submit EMD/Bid Security for the amount as indicated in the Forwarding Letter.

a) Vide Govt. of Assam notification No.FEB.269/2017/27 Dtd. Dispur the 21st August 2019, EMD should be paid through online by logging into Govt. of Assam E-tendering website www.assamtenders.gov.in either online payment or NEFT/RTGS.

b) The 'Bid Security' is required to protect AGCL against the risk of Bidder's conduct, which would warrant the 'Bid Security's' forfeiture.

c) AGCL shall not be liable to pay any Bank charges, commission or interest on the amount of 'Bid Security'. 'Earnest Money / Bid Security' shall be valid for 'two [02] months' beyond the 'Bid Validity Period'

d) Unsuccessful Bidder's 'Earnest Money / Bid Security' will be discharged/ returned as promptly as possible, but not later than 'thirty [30] days' after expiry of the 'Period of Bid Validity' prescribed by AGCL.

e) The successful Bidder's 'Bid Security' will be discharged within 30 days from the last date of supply of material and submission of PBG.

f) The 'Bid Security' may be forfeited:

i) If a Bidder withdraws his Bid during the 'Period of Bid Validity'

ii) In the case of a successful Bidder, if the Bidder fails:

- To accept the "Notification of Award"
- To furnish "Contract Performance Security / Security Deposit"
- To accept 'arithmetical corrections'

g) **EXEMPTION OF BID SECURITY:** Central Govt. departments, Central Public Sector undertakings are exempted from submitting Bid Security. Bidders registered with MSE units (and not their dealers/distributors) which are themselves registered with District Industry Center or Khadi and Village Industries Commission or Khadi and Village Industries Board or Coir Board or National Small Industries Corporation (NSIC) or Directorate of Handicrafts and Handloom or any other body specified by Ministry of MSME are also exempted from submitting Bid Security irrespective of monetary limit mentioned in their registration certificate provided they are registered for the same item(s)/services for which tender has been invited and provided they submit offer for their own products/services. However, the valid registration certificate issued by the authorities as above and indicating the category of item/services and the monetary limit for which they are registered must be submitted by the bidders along with their bids (Technical) without which the bidders will not be entitled for the exemption. Also "Startups" as defined in Gazette notification No. D.L-33004/99 dated 18/02/2016 and 23/05/2017 of Ministry of Commerce and Industry) are exempted from furnishing Bid Security, provided they are registered for the quoted items up to the monetary limit, they intend to quote and subject to their enclosing with their Bid a copy of latest and current 'Registration Certificate'.

9.0 PERFORMANCE SECURITY (Applicable only in case of tenders wherever

specifically mentioned)

9.1 The successful bidder shall furnish to Company the Performance Security in the prescribed format enclosed (Section E) herewith within 15 days of receipt of the formal purchase order by the successful bidder failing which AGCL reserves the right to cancel the order and forfeit the Bid Security. Bidders should undertake in their bids to submit Performance Security as stated above.

9.2 The amount of Performance Security and the date of expiry of the Performance Security shall be as indicated in the Purchase Order. The amount of Performance Security in case of Procurement of Goods shall be 10% of order value (unless specified otherwise).

9.3 The Performance Security shall be denominated in Rupees and shall be in any one of the following forms: (a) A Bank Guarantee in the prescribed format issued from any scheduled Indian Bank or Any Branch of an International bank situated in India and registered with Reserve Bank of India as scheduled foreign bank only will be accepted. Bank Guarantees issued by Banks in India should be on non-judicial stamp paper/Frinking receipt of requisite value, as per Indian Stamp Act, purchased in the name of the Banker or the Seller. Bank Guarantee with any condition other than those mentioned in AGCL's prescribed format shall not be accepted and bids submitted by bidders with such Bank Guarantee will be liable for rejection. (b) A Cashier's cheque or Demand Draft with validity of minimum 90 days or as per RBI's guidelines, drawn on "Assam Gas Company Limited" and payable at Duliajan, Assam. (Note: In case of submission of Demand Draft/Cashier Cheque towards Performance Security by seller, AGCL shall encash the Demand Draft/Cashier Cheque. However, the return of Performance Security will be governed by the terms and conditions of the Bid Document / Purchase order.

9.4 The Performance Security specified above must be valid for 3(three) months beyond the Warranty period indicated in the Purchase Order /contract agreement. The Performance Security will be discharged by Company not later than 30 days following its expiry after completion of obligations under the order/contract. In the event of any extension of the Warranty period of the Purchase Order/Contract, Bank Guarantee should be extended by the Seller/Contractor by the equivalent period.

9.5 The Performance Security shall be payable to Company as compensation for any loss resulting from Supplier's/Contractor's failure to fulfill its obligations under the order/Contract.

9.6 The Performance Security will not accrue any interest during its period of validity or extended validity. AGCL shall not be liable to pay any bank charges, commission or interest on the amount of Performance Security.

9.7 The Bank Guarantee issued by a Bank amongst others shall contain the complete address of the Bank including Phone Nos., Fax Nos., E-mail address and Branch Code.

9.8 Failure of the successful Bidder to comply with the requirements of

clause 9.0 shall constitute sufficient grounds for annulment of the award and forfeiture of the Bid Security or Performance Security. In such an eventuality, the party shall be debarred for a period of 2(two) years from the date of default.

9.9 In the event of Seller's/Bidder's failure to discharge their obligations under the order/Contract, the Performance Security shall be encashed and the proceeds thereof shall be forfeited without any further reference to the Seller/Bidder.

9.10 In case, the Performance Security in the form of a Bank Guarantee is found to be not genuine or issued by a fake banker or issued under the fake signatures, the LOI/Purchase Order issued/placed on the bidder shall be treated as cancelled forthwith and the bidder shall be debarred from participating in future tenders. Further, the Bid Security submitted by such bidder shall be invoked without any further reference.

9.11 The Performance Security for capital nature items like plant and machinery etc. shall be valid for 12 months from the date of commissioning plus 3(three) months or 18 months from the date of shipment/despatch plus 3(three) months whichever concludes earlier. However, for consumables like chemicals, cement, tubular etc. the Performance Security shall be valid for 12 months from the date of shipment/despatch plus 3(three) months.

9.12 The supplier/contractor will extend the validity of the Performance Security, if and whenever specifically advised by AGCL, at the Bidder/Seller/contractor's cost.

9.13 If it is found that a bidder/Seller/Contractor has furnished fraudulent document/information, the Performance Security shall be forfeited and the party shall be debarred for a period of 3(three) years from the date of detection of such fraudulent act, besides the legal action. In case of major and serious fraud, the period of debarment may be enhanced.

10.0 DOCUMENTS COMPRISING THE BID:

10.1 The bid prepared by the bidder shall comprise the following components, duly completed: a) Price schedule (Refer on-line Price Schedule as applicable) b) Documentary evidence in accordance with Clause 1.2 if the bidder is other than Original Equipment Manufacturer. c) Bid must accompany necessary literature/catalogue of the equipment as well as of the spare parts catalogue thereof, wherever required. d) Bid Submission Proforma duly filled in (Refer Annexure A1) e) Exceptions/Deviations Form duly filled in (Refer Annexure A3) f) Bidder's past supplies proforma duly filled in (Refer Annexure A4) g) Authorization letter for attending Tender Opening (Refer Annexure A5) h) Confirmation about the Performance Security, wherever required i) Back-up Authority Letter for warranty cover of manufacturer in case the bid is from sole selling agent/authorized distributor/authorised dealer/authorised supply house(Refer Annexure C2).

11.0 SUBMISSION AND OPENING OF BIDS:

11.1 The bid along with all Sections and copies of documents should be submitted in e-form only through AGCL's e-bidding engine. The price bids submitted in physical form against e-procurement tenders shall not be given any cognizance. However, the following documents should necessarily be submitted in physical form in sealed envelope super scribed as "Tender Number and due for opening on.....":

- 1.** Any other document required to be submitted in original as per tender requirement.
- 2.** If Sample is called for in the Tender.
- 3.** Printed catalogue and Literature if called for in the NIT.

The outer cover should duly bear the tender number and date of closing/opening prominently underlined, alongwith the address of Purchaser's office, as indicated in Invitation For Bids.

12.0 DEADLINE FOR SUBMISSION OF BIDS:

12.1 Bidders will not be permitted by System to make any changes in their bid after bid has been uploaded by bidder. Bidder may however request the administrator of particular tender through the system for returning their bids before the due date of submission for resubmission. But no such request would be entertained once due date for submission of bids has been reached.

12.2 No bid can be submitted after the submission dead line is reached. The system time displayed on e-procurement web page shall decide the submission dead line.

13.0 CLARIFICATIONS OF BIDS:

13.1 No unsolicited correspondence after submission of the offer will be taken cognizance of or responded to.

13.2 After the opening of the bid, AGCL may at its discretion ask the bidder for clarification of its bids. The request for clarification and response shall be in writing and no change in the price or substance of the Bid shall be accepted. The reply of the bidder should be restricted to the clarifications sought and the reply should adhere to the time limit as indicated in the communication from AGCL.

14.0 EXTENSION OF BID SUBMISSION DATE: Normally no request for extension of Bid Closing Date will be entertained. However, in case of any changes in the specifications, inadequate response or for any other reasons, AGCL may at its discretion, extend the Bid Closing Date and/or time.

15.0 LATE BIDS: Timely submission of tenders is the responsibility of the bidder. Bidders are advised in their own interest to ensure that bid are uploaded in system well before the closing date and time of the bid.

16.0 OPENING OF BIDS:

16.1 The bid will be opened on the date & time of opening as indicated in e-

portal. Bidder or their authorized representative (only one person per bidder) will be allowed to be present at the time of opening of the Bids. However, a letter (in the form as per Annexure A5 enclosed) must be produced to the Tender Opening Officer at the time of opening of tenders. Unless this letter is presented, the representative will not be allowed to attend the tender opening.

16.2 In case of unscheduled holiday on the closing/opening day of bid, the closing/opening date shall be re-fixed to next working day, the time notified remaining the same.

17.0 COMPLIANCE WITH TENDER:

17.1 Bidder's offer must conform in all respects with the applicable specifications, drawings and terms and conditions of the tender. Any deviation from the tender specifications or terms and conditions must be clearly and explicitly stated. In order to be considered responsive, the Bidder must enclose Annexure A3 (duly filled in) with their Bid.

17.2 AGCL reserves the right to accept / reject any deviation in bidder's offer pertaining to the materials specifications or to the terms and conditions stipulated in this tender without assigning any reason other than Bid Rejection Criteria specified in the Bid document.

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

AGCL reserves the right to accept / reject or prefer any offer either in full or in part or annul the bidding process and reject all bids at any time prior to award of contract without thereby incurring any liability to the affected bidder(s) or any obligation to inform the affected bidder (s) of the ground for AGCL's action.

19.0 INSPECTION AND TEST:

19.1 All materials to be supplied shall be subject to inspection and test by AGCL at its discretion at any stage of manufacture and before despatch by mutual arrangement. Inspection and tests shall be carried out either by AGCL's personnel and/ or through a third party nominated by AGCL. Seller has to arrange for the inspection through the nominated third party (whenever applicable) and obtain the necessary inspection certificates together with the declaration certificate (as per Format mentioned in Annexure A6)

19.2 AGCL reserves the right to inspect the material through any of the Third Party Inspection Agencies. While appointing the Third party inspection Agency, the bidder shall pass instruction to the appointed Third Party Inspection Agency to comply and respond to the advice/queries made by AGCL directly with the inspection agency in connection with the inspection.

19.3 Bidder must extend the required facility for inspection by Third Party Inspection Agency. The bidder will be responsible for arranging the third party inspection and must submit the inspection certificate in Original

together with the Declaration Certificate (as per Format mentioned in Annexure A6) to AGCL along with the despatch/ shipping documents. The certificate issued by the Third Party Inspection Agency must specify that the inspection has been carried out for the material to be supplied to AGCL and inspection has been carried out as per the scope of inspection stipulated in AGCL's Purchase Order. The certificate should also specify AGCL's Purchase Order Number.

20.0 PACKING:

20.1 Packing of goods must be sufficiently robust to withstand multiple handling during transit for delivery to their final destination so that contents do not get damaged. Protection of the plant and equipment against corrosion or deterioration must be given special attention.

20.2 Machined steel and iron parts are to be heavily greased / varnished as a prevention against rust.

20.3 In the case of internal combustion engines, compressors and similar equipment, internal parts are to be sprayed with an inhibitor or water splitting preservative and all openings covered with tape to prevent ingress of water.

20.4 Boxes / Packing cases containing electrical / electronic equipment are to be waterproof lined.

20.5 All items must have their respective identification marks painted / embossed on them.

20.6 Crates or boxes should have a list of items contained therein secured to the exterior by means of an enveloping piece of tin sheet nailed to the wood. A duplicate list should also be included inside the crate with the contents.

20.7 The Seller shall be responsible for damage of goods either in full or in part and for corrosion and/or deterioration of the plant and equipment during transit due to inadequate/insufficient packing or due to non-compliance with the above Para Nos. 20.1 to 20.4 depending upon the nature of items and as such shall be obligated to repair or replace the damaged goods or plant or equipment in full or in parts thereof, at free of cost to AGCL within a reasonable period of time.

20.8 WEIGHT AND SIZE LIMITATION OF PACKAGES:

Category	Length (Mtr.)	Width (Mtr.)	Height (Mtr.)	Capacity (MT)
Truck	5.185	1.98	1.98	9
Normal Trailer	10.98	2.44	2.44	18
Semi Low Bed Trailer	10.98	3.05	3.05	20
Low Bed Trailer	6.71	3.05	3.81	18

Above dimensional restrictions must not be violated without prior approval from the Purchaser. The finished packing should be in the form of a box under the limited dimensions.

21.0 DESPATCH:

21.1 For orders placed on FOR Destination basis, the material will be required to despatch through reputed Bank approved transporters only on Door Delivery basis. In case AGCL is required to collect the material from transporters godown, extra expenditure incurred thereof will be recovered from the Bidder/seller.

21.2 Successful suppliers will be given necessary permission to enter into the Industrial Area or Company's other operating areas to deliver the material as per scheduled office timing.

22.0 INSURANCE:

22.1 The Sellers have to arrange the transit insurance at their cost in case of orders placed on FOR Destination basis.

22.2 In addition to the transit insurance as above, seller has to ensure that equipment and machineries are insured up till formal commissioning and handover to AGCL.

23.0 PAYMENT TERMS:

23.1 80% of the total equipment value (UPS, battery bank and cell booster value) shall be released after delivery and acceptance of the total package at site within 30 days from the date of submission of defect-free invoice in triplicate.

23.2 20% of the total equipment value (UPS, battery bank and cell booster value) shall be released after successful installation, testing and commissioning of the package or 2 (two) months from the date of receipt of equipment (complete package) at site whichever is earlier.

23.3 100 % of Installation, Testing & Commissioning charges will be released within 30 (Thirty) days after successful commissioning and handing over of the UPS System with related accessories to AGCL.

23.4 Part supply/installation/commissioning of the package and payment there of shall not be accepted/ allowed.

23.5 The Company shall make endeavor to make payment within 30 days from the date of receipt of bill by Company.

23.6 Deviation in the payment terms will not be entertained and may lead to rejection of the offer.

23.7 Payment to third party: Request for payment/part payment to third party (i.e., other than the party on whom the order has been placed) will not be entertained by AGCL under any circumstances. The offers stipulating payment/part payment to such third party will be considered as nonresponsive and such offers will be rejected.

24.0 BANKING CHARGES: All banking charges will be to the bidder's

account.

25.0 CONFIDENTIAL INFORMATION:

25.1 The Bidder / Seller shall treat as confidential all designs, drawings, data or information written or verbal, supplied by AGCL and shall use its best endeavors to ensure that such design, drawings, data or information is not divulged to any third party except with the consent of AGCL where necessary for the purpose of performance of its obligation hereunder and subject to similar undertakings being obtained from such third parties to treat such design, drawings, data or information in like confidence other than designs, drawings, data or information which at the time of proposed disclosure are within the public knowledge or in the Bidder's/Seller's possession.

26.0 PATENT AND OTHER RIGHTS:

26.1 The Bidder/Seller shall fully indemnify AGCL against any action, claim or demand, costs and expenses arising from or incurred by reason of any infringement or alleged infringement of any letter, patent, design, trademark or name, copy right or other legally protected rights in respect of any plant, work, materials to be supplied or any arrangement, system or method of using, fixing or working to be employed by the Bidder/Seller.

26.2 In the event of any claim or demand being made or action brought against AGCL in respect of any of the aforesaid matters, AGCL shall notify the Bidder/Seller thereof as soon as possible and Bidder/Seller shall conduct with the assistance of AGCL if necessary, but at his own expense, all negotiation for the settlement of such matter and any legal proceeding, litigation/ arbitration involved or which may arise therefrom.

27.0 INDEMNITY AND INSURANCE:

27.1 The Bidder/Seller shall defend or hold AGCL harmless from all actions, claims, suits and demands made, against either or both of them in respect of injuries to or death of any person including employees of the Bidder/Seller or non-compliance of any statutory/ safety requirement.

27.2 The Bidder/Seller shall also defend and hold AGCL harmless for loss of and damage to property arising from the supply of any goods or materials or the erection, installation repair or operation for a period, of any plant hereunder.

28.0 ASSIGNMENT:

The Bidder/Seller shall not transfer, assign or sublet the consequent Contract or any part thereof without the prior consent in writing from AGCL. Any permitted transfer/assignment or subletting shall not relieve the Bidder/Seller of any of his obligations which might have arisen before such permission was given.

29.0 WARRANTY / GUARANTEE:

29.1 Goods, materials or plant (s) to be supplied hereunder shall be new, of recent make, of the best quality & workmanship and shall be guaranteed by the Seller for a period mentioned hereunder against defects arising from faulty materials, workmanship or design. Defective goods / materials or parts notified by AGCL to the Seller shall be replaced immediately by the Seller on F.O.R destination basis including payment of all taxes and duties at Seller's expense. This guarantee shall survive and hold good notwithstanding inspection, payment for and acceptance of the goods.

29.2 NATURE OF ITEMS- PERIOD OF WARRANTY / GUARANTEE:

For consumables like Cement, Chemicals, tubulars etc.	12 months from the date of despatch/shipment.
For Capital Items	18 months from the date of despatch/shipment or 12 months from the date of successful commissioning, whichever is earlier.
For other items	18 months from the date of despatch/shipment or 12 months from the date of receipt at destination, whichever is earlier

30.0 DEFAULT IN DELIVERY / LIQUIDATED DAMAGES:

30.1 Time will be of the essence of the contract.

30.2 In the event of the Seller's default in maintaining the agreed delivery schedule set out in the order, AGCL shall have the right to cancel the order at any time after expiry of scheduled delivery date without any reference to the Seller and make alternative arrangement at the discretion of AGCL in which case extra expenditure involved, will be recoverable from the Seller and AGCL shall not be responsible towards such cancellation or any damage that may be incurred by the Seller. The decision of AGCL shall be final and binding on the Seller.

30.3 As an alternative to Clause No. 30.2 above, AGCL reserve the right to accept the materials but, the Seller shall be liable to pay liquidated damages @ 0.5% per week or part thereof of the value of the goods in respect of which default in delivery takes place subject to a maximum of 7.5 %. Should there be default on the part of the Seller for more than 15 Weeks from the scheduled date to complete the delivery or to complete the installation/commissioning & Training (wherever applicable) successfully, AGCL shall have the right, in addition to the provisions under Clause 31.2 to invoke the Performance Security without causing any notice to the Seller to this effect. The amount of liquidated damage as stipulated above is a pre-estimated genuine loss as agreed by both the parties and shall be payable without any demur and shall not be open for any dispute whatsoever.

30.4 The liquidated damage as agreed by both the parties as a genuine pre-estimated loss shall be payable on Landed Cost of the materials at site inclusive of all cost to the extent of default (undelivered portion only in cases where part delivery is acceptable) and commissioning at site is not involved.

31.0 FORCE MAJEURE:

31.1 In the event of either of the parties being rendered unable, wholly or in part by force majeure to carry out its obligations under the agreement when entered into, it is agreed that on such party giving notice and full particulars of such force majeure in writing or by e-mail(official)/telegram / telex / fax to other party as soon as possible (within maximum one week), after the occurrence of the cause relied on then the obligations of the party giving such notice with proper documentary evidence so far as they are affected by such force majeure, shall be suspended during the continuance of any inability so caused but for no longer period, and such cause as far as possible be remedied with all reasonable effort.

31.2 The term "Force Majeure" as used herein shall mean 'Acts of God' including Landslides, Lightning, Earthquake, Fires, Storms, Floods, declared Wars, Blockades, insurrection, riots, Government regulations etc., which are not within the control of the party claiming suspension of its obligations within the meaning of the above Clause 31.1 and which renders performance of the contract by the said party completely impossible.

32.0 DEFAULT:

32.1 In the event of an Contract with the Bidder, if the Bidder/Seller contravenes any of the provisions of the Contract or neglects to carry out his obligations of the Contract, AGCL may give notice in writing thereof requiring the Bidder/Seller to remedy the breach within seven days, or within such period as AGCL may agree to be reasonable and in the event of Bidder's/Seller's failing to do so, AGCL will be at liberty to purchase the goods elsewhere or have the work which the Bidder/Seller has neglected to do, carried out by some other person at the Bidder's/Seller's expense. In such an event AGCL shall have the right to terminate the Contract.

33.0 TERMINATION:

33.1 Termination on expiry of the contract/order: This Agreement/ Order/ Contract shall be deemed to have been automatically terminated on the expiry of the contract/delivery period unless AGCL has exercised its option to extend this contract/order in accordance with the provisions, if any, of this contract/order.

33.2 Termination of contract for death: If the CONTRACTOR/SUPPLIER is an individual or a proprietary concern and the individual or the proprietor dies or if the CONTRACTOR//SUPPLIER is a partnership concern and one of the partners dies then unless, the COMPANY is satisfied that the legal heir of the individual or the proprietary concern or the surviving partners are capable of carrying out and completing Contract/Order, the COMPANY is entitled to cancel the Contract/Order for the uncompleted part without being in any way liable for any compensation payment to the estate of the deceased CONTRACTOR/SUPPLIER and/or to the surviving partners of the CONTRACTOR's firm on account of the cancellation of Contract. The decision of the COMPANY in such assessment shall be final & binding on the parties. In the event of such cancellation, the COMPANY shall not hold the

estate of the deceased CONTRACTOR and/or the surviving partners of CONTRACTOR's firm liable for any damages for non-completion of the Contract.

33.3 Termination on account of Force Majeure: Unless the contract provides otherwise, either party shall have the right to terminate this Contract on account of Force Majeure as set forth in Para 32.0.

33.4 Termination on account of insolvency: In the event that the CONTRACTOR or its collaborator or its guarantor at any time during the term of the Contract, becomes insolvent or makes a voluntary assignment of its assets for the benefit of creditors or is adjudged bankrupt or under the process of insolvency or liquidation, then the COMPANY shall, by a notice in writing have the right to terminate the Contract and all the CONTRACTOR's rights and privileges hereunder, shall stand terminated forthwith.

However, COMPANY shall be at liberty to give the Receiver or Liquidator or Insolvency Professional Manager, as appointed by the Competent Court/Tribunal, the option of carrying out the Contract subject to its technical & financial competence and his providing a guarantee for due and faithful performance of the Contract.

33.5 Termination for Unsatisfactory Performance: If the COMPANY considers that, the performance of the CONTRACTOR is unsatisfactory, or not as per the provision of the Contract, the COMPANY shall notify the CONTRACTOR in writing and specify in details the cause of dissatisfaction. The COMPANY shall have the option to terminate the Contract by giving 15 days notice in writing to the CONTRACTOR, if CONTRACTOR fails to comply with the requisitions contained in the said written notice issued by the COMPANY. In the event CONTRACTOR rectifies its non-performance to the satisfaction of the COMPANY, the option of termination may not be exercised by the COMPANY. If however CONTRACTOR repeats non-performance subsequently, COMPANY shall exercise the option to terminate contract by giving 07 days notice. Such CONTRACTOR shall be put on holiday for a period of 2 years.

33.6 Termination due to change of ownership and Assignment: In case the CONTRACTOR's rights and/or obligations under this Contract and/or the CONTRACTOR's rights, title and interest to the equipment/ material, are transferred or assigned without the COMPANY's written consent, the COMPANY may at its option, terminate this Contract. COMPANY shall not be however under any obligation to accord consent to the CONTRACTOR for change of ownership & assignment of the contract.

33.7 If at any time during the term of this Contract, breakdown of CONTRACTOR's equipment results in CONTRACTORs being unable to perform their obligations hereunder for a period of 15 successive days, COMPANY at its option, may terminate this Contract in its entirety or partially to the extent non-performance, without any further right or obligation on the part of the COMPANY, except for the payment of money then due. No notice shall be served by the COMPANY under the condition stated above.

33.8 Notwithstanding any provisions herein to the contrary, the Contract

may be terminated at any time by the COMPANY on giving 30 (thirty) days written notice to the CONTRACTOR due to any other reason not covered under the above Article from 33.1 to 33.7 and in the event of such termination the COMPANY shall not be liable to pay any cost or damage to the CONTRACTOR except for payment of services as per the Contract upto the date of termination.

33.9 Consequence of Termination: In all cases of termination herein set forth, the relative obligations of the parties to the Contract shall be limited to the period up to the date of termination. Notwithstanding the termination of this Contract, the parties shall continue to be bound by the provisions of this Contract that reasonably require some action or forbearance after such termination.

Upon termination of this Contract, CONTRACTOR shall return to COMPANY all of COMPANY's properties, which are at the time in CONTRACTOR's possession.

34.0 In the event of termination of contract, COMPANY will issue Notice of termination of the contract with date or event after which the contract will be terminated. The contract shall then stand terminated and the CONTRACTOR shall demobilize their personnel & materials.

Demobilization charges shall not be payable by COMPANY in case of Article from 33.4 to 33.7.

35.0 APPLICABLE LAW: The contract/ order arising out of this tender shall be interpreted in accordance with and governed by the laws of India and Dibrugarh Courts in the State of Assam shall have exclusive jurisdiction.

36.0 ARBITRATION:

36.1 All disputes and differences whatsoever arising between the parties out of or relating to the construction, meaning and operation or effect of this Tender and consequent Contract or the breach thereof shall be mutually settled. However, in case no such mutual settlement is arrived at, the matter shall be settled by arbitration in accordance with the provision of arbitration of the Indian Arbitration & Conciliation Act, 1996 and any statutory modification or re-enactment thereof and the Rules made there under and for the time being in force. The venue of arbitration shall be at Duliajan unless otherwise agreed by AGCL.

36.2 In case of dispute with the Seller who happens to be a Public Sector Undertaking, the same shall be resolved as per Department of Public Enterprises (DPE) guidelines.

37.0 BID REJECTION CRITERIA: The bids must conform to the specifications, terms, and conditions given in the NIT. Bids shall be rejected in case the items offered do not conform to the required minimum / maximum parameters stipulated in the technical specifications and to the respective international /national standards wherever stipulated. Notwithstanding the general conformity of the bids to the stipulated specifications and terms and conditions, the following requirements shall have to be particularly met by

the bidders, without which the offer will be considered as non-responsive and rejected:

37.1 Bidders shall offer firm price through delivery and not subject to variation on any account. Bids with adjustable price shall be treated as non responsive and rejected.

37.2 Offers with inadequate validity will be rejected.

37.3 Bids received after bid closing date and time shall be rejected. Also, modification of Bids received after Bid Closing date/time shall not be considered.

37.4 Offers received from unsolicited parties shall not be considered and rejected.

37.5 The authenticity of the digital signature shall be verified through authorized CA after bid opening and in case the digital signature is not authorized the bid will be rejected.

37.6 Any offer containing incorrect statement will be rejected.

37.7 The bids shall conform generally to the specifications and terms and conditions given in the tender. Bids shall be liable for rejection in case the goods offered don't conform to the required minimum / maximum parameters stipulated in the technical specifications and to the respective international/National standards wherever stipulated.

37.8 Bids not submitted in compliance with Para 6.9 above regarding submission of samples (whenever applicable) will be rejected.

37.9 To ascertain the substantial responsiveness of the bid, clarification in respect of clauses covered under BRC can be asked from the bidder and such clarifications fulfilling the BRC clauses in toto must be received on or before the deadline given by the company, failing which the bid will be summarily rejected.

37.10 Bidder must accept and comply with the following clauses as given in the Bid Document in toto failing which bid will be liable for rejection:

- i. Guarantee of Material clause
- ii. Force Majeure Clause
- iii. Arbitration Clause
- iv. Acceptance of Jurisdiction and Applicable Law clause
- v. Liquidated damage and penalty clause
- vi. Delivery Period clause

38.0 BID EVALUATION CRITERIA:

38.1 Bids which are found to be responsive and meeting the requirement both specification wise and terms and conditions in the enquiry will be considered for final evaluation.

38.2 Each item shall be normally evaluated independently unless otherwise

stated.

38.3 In the event of computational error between unit price and total price, unit price shall prevail and adopted for evaluation.

38.4 Similarly, in the event of discrepancy between words and quoted figure, words will prevail.

38.5 Preference to Public Sector Undertaking and MSE etc. will be given as per prevailing Government guidelines as applicable on bid closing date.

38.6 At the time of evaluation of the offers, past performance of similar equipment supplied by the bidder as well as after-sales service, supply of spares, etc. in respect of such equipment by the concerned bidder will be considered / evaluated. If the same are not found to be satisfactory as already communicated to the bidder, the offer may be considered as unacceptable offer and rejected.

38.7 Considering the nature of the item, if the product offered by the lowest acceptable bidder is not field proven in AGCL, purchaser at its discretion may place a trial order to the extent of 25% (maximum) only and balance quantity will be procured from other competitive bidders whose product has been field proven in AGCL.

39.0 PURCHASE PREFERENCE: AGCL reserves the right to allow purchase preference facilities as admissible under the existing policy. However, the provisions are subject to change as per Govt. Guidelines and the provisions ruling at the time of bid (price bid in case of two bid/stage system) opening will be applicable. Bidders are requested to take a note of the latest guidelines of the Govt. in this regard on their own and quote accordingly.

40.0 COMPARISION OF OFFERS:

40.1 Comparison of the bids will be done on total F.O.R. destination cost basis to ascertain the lowest bid.

40.2 In case of any conflict between the Rejection/Evaluation criteria stipulated in this Section with that given in the Invitation for Bid against specific Tender, those mentioned in the Invitation for Bid against specific Tender will prevail.

41.0 GENERAL HEALTH, SAFETY & ENVIRONMENT (HSE) GUIDELINES (Applicable in case of the Purchase Orders involving Fabrication, Installation and Commissioning at Purchaser's site):

41.1 It will be solely the SELLER's responsibility to fulfill and to comply all the legal formalities with respect to the Health, Safety and Environmental aspects of the entire job (namely the person employed by him, the equipment, the environment, etc.)

41.2 It will be entirely the responsibility of the Supplier/ his Supervisor/representative to ensure strict adherence to all HSE measures

and statutory rules during operation in AGCL's installations and safety of workers engaged by him. The crew members will not refuse to follow any instruction given by company's Installation Manager/ Safety Officer/ Engineer/ Official/ Supervisor/ Junior Engineer for safe operation.

41.3 Any compensation arising out of the job carried out by the SELLER whether related to pollution, Safety or Health will be paid by the Seller only.

41.4 Any compensation arising due to accident of the Seller's personnel while carrying out the job, will be payable by the Seller.

41.5 When there is a significant risk to health, environment or safety of a person or place arising because of a non-compliance of HSE Measures Purchaser shall have the right to direct the Seller to cease work until the non-compliance is corrected.

42. DISPOSAL OF REJECTED MATERIALS AT PURCHASER'S SITE: In case any material is rejected by the Purchaser after receipt at site, the Seller shall be informed about the same including the reasons for rejection. Seller shall also be advised about the location where the rejected materials are lying at risk and cost of the Seller. The Seller shall also be advised to remove or dispose of the materials within four (4) weeks from the date of notice, failing which the Purchaser will be entitled to dispose-off the materials at risk and cost of the Seller.

43.0 ERRING / DEFAULTING AGENCIES: Erring and defaulting agencies like bidder, Seller, supplier, vendor, service provider will be dealt as indicated in this Tender. Moreover, AGCL reserves the right to take legal or any other action on the basis of merit of the case.

44.0 WAIVERS: It is fully understood and agreed that none of the terms and conditions of this agreement shall be deemed waived by either party unless such waiver is executed in writing only by the duly authorized representatives of both the parties. The failure of either party to execute any right shall not act as a waiver of such right by such party.

45.0 SEVERABILITY: Should any provision of this agreement be found to be invalid, illegal or otherwise not enforceable by any court of law, such finding shall not affect the remaining provisions hereto and they shall remain binding on the parties hereto.

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Annexure A1

BID SUBMISSION PROFORMA

Assam Gas Company Limited
Duliajan

Subject :Tender No -----

Dear Sirs,

I / We have understood and compiled with the "Instructions to Bidders" and "Bid evaluation / Rejection Criteria" and the "General Terms and Conditions" for supply and have thoroughly examined and compiled with the specifications, drawings and / or pattern stipulated hereto and / are fully aware of the nature of the material required and my / our offer is to supply materials strictly in accordance with the requirements.

We confirm that this Bid is valid for a period of ----- days from the Due Date of Bid Submission, and it shall remain binding upon us and may be accepted by any time before the expiry of that period.

If our Bid is accepted, we will provide the "Contract Performance Guarantee / Security Deposit" as mentioned in Tender Document for the due performance within "Thirty [30] days" of such Award. Until a final Agreement/Letter of Award is prepared and executed, the tender document (including addenda/ corrigenda) together with the "Notification of Award"/ "Fax of Acceptance" shall constitute a binding Agreement between us.

Yours faithfully,
(SIGNATURE OF BIDDER)

ADDRESS :

DATED :

TELEPHONE NO :

FAX NO :

EMIAL ADDRESS :

Note : This form should be returned along with offer .

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Annexure A2

Price Schedule Proforma

Sl No	Item Description	HSN SAC	Quantity	Unit	Unit Rate (In Rs)	GST (In Rs)	Total Amount (In Rs)
1	Supply of 2 X 5 KVA UPS Uninterrupted power supply system (3 Ph I/C & O/G AC, 1 Ph, N, Redundancy Parallel redundant UPS) as per specification mentioned in the tender) Supply, of 2x 5kVA rating UPS includes System Design, Detailed Engineering, procurement of materials, Inspection/FAT (Factory acceptance test), for PARALLEL REDUNDANT UPS (2 X100%) with solid state voltage stabilizer for Bypass, suitable for input Power supply voltage of 320 V-460V TPN and 230 ± 1% output AC supply, Bidder's scope includes System Design, Detailed Engineering (as per tender specification, scope of work and block diagram enclosed), procurement of materials, Inspection TPI, FAT (Factory acceptance test)Supply of materials, Transportation,		06	No.			

	<p>loading/unloading, insurance, storage of complete UPS Supply of 2 x 5KVA UPS (230V AC, 1 Phase, Parallel Redundant UPS with bypass 100% rating) arrangement at the following locations, etc. as required</p> <ol style="list-style-type: none"> 1. Nambor station, Golaghat 2. Khoraghat station, Golaghat 3. Thoramukh station, Golaghat 4. Halmiramukh station, Golaghat 5. Numaligarh station, Golaghat 6. Uriumghat station, Golaghat 						
2	<p>Supply of 2 X 3 KVA UPS Uninterrupted power supply system (3 Ph I/C & O/G AC, 1 Ph, N, Redundancy Parallel redundant UPS) as per specification mentioned in the tender) Supply, of 2x 3kVA rating UPS includes System Design, Detailed Engineering, procurement of materials, Inspection/FAT (Factory acceptance test), for PARALLEL REDUNDANT UPS (2 X100%) with solid state voltage stabilizer for Bypass, suitable for input Power supply voltage of 320 V-460V TPN and 230 ± 1% output AC</p>	01	No.				

	<p>supply, Bidder's scope includes System Design, Detailed Engineering (as per tender, specification, scope of work and block diagram enclosed), procurement of materials, Inspection TPI, FAT (Factory acceptance test) Supply of materials, Transportation, loading/unloading, insurance, Storage of complete UPS Supply of 2 x 3KVA UPS (230V AC, 1 Phase, Parallel Redundant UPS with bypass 100% rating) arrangement at the following locations, etc. as required</p> <p>1. SV Station, Golaghat</p>					
3	<p>Supply, installation, testing and commissioning of 2 X 50% Nickel Cadmium battery bank suitable for total 4 hours battery back up time for 2 X 100%, 5 KVA UPS System including supply of battery cable, battery MCB, Battery racks, connectors and accessories, cable from UPS to batteries etc. at locations including all necessary loading, unloading, transportation etc. as required as mentioned under SI No. 1</p>	06	Set			

4	Supply, installation, testing and commissioning of 2 X 50% Nickel Cadmium battery bank suitable for total 4 hours battery back up time for 2 X 100%, 3 KVA UPS System including supply of battery cable, battery MCB, Battery racks, connectors and accessories, cable from UPS to batteries etc. at locations as mentioned under SI No. 2		01	Set			
5	Supply of cell booster as per specification mentioned in the tender		04	Nos			
6	Erection, installation, testing and commissioning of the UPS system with battery banks at sites as mentioned in SI. No. 1 & 2		07	Nos			
TOTAL (In figure)							
TOTAL (In words):							

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Annexure A3

PROFORMA :EXCEPTION / DEVIATION

AGCL expects the bidders to fully accept the terms and conditions of the bidding documents. However, should the bidder experience some exception and deviations to the terms of the bidding documents, the same should be indicated here and put in unpriced bid. In order to be considered responsive, Bidder's offer must specifically include the following statement:

(a) We certify that our offer complies with all NIT requirements and specifications without any deviations.

Or

(b) We certify that our offer complies with all NIT requirements and specifications with the following deviations:

Clause No. of Bidding Document	Full compliance/ not agreed	Exception/ deviations taken by the Bidders	Remark

Signature of the Bidder

Name :

Seal of the company

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Annexure A4

PROFORMA IF BIDDER'S PAST SUPPLIES

SL.NO	ADDRESS OF CLIENT, NAME	ORDER NO. & DATE	DESCRIPTION DETAILS	TOTAL QUANTITY SUPPLIED SUCCESSFULLY

NOTE:- CERTIFICATE FROM CLIENTS TO BE ENCLOSED ALONGWITH THIS PROFORMA

Signature of the Bidder

Name_____

Seal of the Company

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Annexure A5

**PROFORMA OF AUTHORISATION LETTER FOR ATTENDING TENDER
OPENING**

To,
Assam Gas Company Ltd.
Duliajan-786602
Subject : Tender No.----- due on-----
for _____

Dear Sir,

Mr _____ has been authorized to be present at the time of opening of
above tender on my/our behalf.

Yours faithfully
Signature of Bidder
Name:
Designation :
For & on behalf of :

Copy to: Mr----- for information and for production before the bid opening
authority at the time of opening of bids.

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Annexure A6

DECLARATION CERTIFICATE BY THE THIRD PARTY INSPECTOR

TO WHOM IT MAY CONCERN

This is to certify that following material and quantity offered to us for inspection by M/s..... has been inspected by us as per the scope of inspection mentioned in AGCL's Order No. Dated..... and passed by us for despatch.

Materials :

Quantity Passed :

Certificate No. Issued by us:

Date.

Seal Signature of Third Party Inspector

Name:

Designation :

For & on behalf of

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Annexure A7

PROFORMA OF LETTER OF AUTHORITY

To

Assam Gas Company Limited
PO : Duliajan-786602
District: Dibrugarh(Assam)

Dear Sir,

SUB: Tender No. _____ for _____

We _____ of _____
confirm that Mr. _____
_____ (Name and Address) is authorised to represent us to Bid,
negotiate and conclude the agreement on our behalf with you against IFB
No. _____ for _____ for any commercial/
Legal purpose etc.
We confirm that we shall be bound by all and whatsoever our said
representative shall commit.

Authorised Person's Signature: _____
Name: _____

Yours faithfully,

Signature: _____
Name & Designation _____
On behalf of _____

NOTE: This letter of authority shall be on printed letter head of the bidder and shall be signed by a person competent and having the power of attorney (Power of attorney shall be annexed) to bind such Bidder.

SECTION-B

TECHNICAL SPECIFICATION AND SCHEDULE OF REQUIREMENTS

1.0 SCOPE

1.1 The scope of this specification is to define the requirements of supply, installation, testing and commissioning of static Uninterrupted Power Supply (UPS) system including supply of battery storage banks with related accessories at various locations of Assam Gas Company Limited in the district of Golaghat, Assam.

1.2 The fabrication works along with supply of materials required for construction of the foundation for installing the UPS and battery banks to be installed inside the porta center at respective site locations has to be carried out by bidder. **Refer Drawing No. P106A-00-DWG-E004 for the equipment layout diagram for porta cabin.** Successful bidder is required to submit the design of UPS System within 10 days of award of work order. Construction of base frame at site and fixing of the UPS system on the base frame will be in the scope of bidder. All related works such as welding at site etc. if required to be carried out by bidder at his expense.

2.0 GENERAL REQUIREMENTS

2.1 The offered equipment shall be brand new with state of art technology and proven field track record. No prototype equipment shall be offered.

2.2 Vendor shall ensure availability of spare parts and maintenance support services for the offered equipment for at least 15 years from the date of supply.

2.3 Vendor shall give a notice of at least one year to the end user of equipment before phasing out the product/spares to enable the end/user for placement of order for spares and services.

2.4 The UPS system shall be an integrated system comprising static rectifiers, battery, static inverters, static switches, auto / manual by pass switch, voltage stabilizer in by pass, isolating and protection devices and all other equipment/accessories required for completeness of the system whether specifically mentioned herein or not, but necessary for completeness and satisfactory performance of the system.

2.5 The UPS system shall be suitable to feed all loads connected to the output which are primarily instruments, (DCS), computers, disc drives and other SMPS equipment leading to high crest factor of the load.

2.6 The inverter shall be thyristor / transistorised (IGBT) type or with the latest proven technology. All components shall be of a high quality and

reliability that satisfy with the requirements of a secure AC power to vital equipment with respect to performance, controlling, monitoring and safeguarding function in continuously operating petrochemical process units, petroleum refineries, gas processing facilities, utility and other miscellaneous industrial plants.

2.7 Components shall be capable of withstanding the thermal and dynamic stresses resulting from internal and external short circuits and switching surges etc.

2.8 The design of the UPS shall be such as to minimize the risk of short circuits and shall ensure human and operational safety.

2.9 The vendor shall be responsible for design, engineering and manufacturing of the complete system to fully meet the intent and requirements of this specifications. Selection, sizing and suitability of all equipment and components used for UPS system shall be Vendor's responsibility.

2.10 All tools, instruments, test kits, drill machine, vice, hardware, clamps etc. required for the job shall be provided by the bidder. Operational tests of all devices, their settings, shall also be carried out during commissioning job by the bidder.

2.11 Bidder shall carry out all earth connections as required to earth electrodes / earthing grid available at site as per design. Supply of required GI earthing strips/ earthing cables etc. as per statutory norms would be under bidder's scope. Earthing shall be carried out as per IS 3043 and its latest amendment.

2.12 Any other item required for successful commissioning of the UPS System but not specified in the specification shall be supplied by bidder without any cost to AGCL.

2.13 All protective devices shall be tested for proper operation and setting done during commissioning by the commissioning person of the successful bidder. **Persons engaged for electrical works at site by bidder shall possess valid electrical license issued by Electrical Licensing Board.**

2.14 The UPS System shall be treated as successfully commissioned from after successful load test of the unit at site.

2.15 Bidder shall furnish all relevant data of complete package as per ANNEXURE-B1 and ANNEXURE-B2 (Data Sheet).

3.0 CODES & STANDARDS

The equipment shall comply with the requirements of latest revision of following Standards issued by BIS (Bureau of Indian Standards) unless otherwise specified:

- IS:5: Colours for ready mixed paints and enamels
- IS:1248: Directacting indicating analogue electrical measuring (Part1,2,4and9) instruments and their accessories
- IS:2147: Degree of protection provided by enclosures for low voltage Switchgear and control gear.
- IS:3700: Essential ratings and characteristics of semi-conductor (Part I to11) devices.
- IS:3715: Letter symbols for semi-conducting devices. (Part 1 to 4)
- IS:4411: Code for designation of semi-conductor devices.
- IS:5001: Guide for preparation of drawings of semi-conductor devices (Part I & 2) and integrated circuits.
- IS:5469: Code of practice for the use of semi-conductor junction (Part 1 to 3) devices
- IS:7204: Stabilized power supplies D.C. output (Part 1 to 4)
- IS:12021: Control transformers for switchgear and control gear for voltages not exceeding 1000VAC
- IS:13314: Solid state inverters run from storage batteries
- IS:13703: Low voltage fuses for voltage not exceeding 1000VAC or (Part 1 to 4)1500V DC
- IS:13947: Specification for low voltage switchgear and control gear(Part-4/Sec-1)

In case of imported equipment, Standards of the country of origin shall be applicable Standards are equivalent or stringent than the applicable Indian Standards.

The equipment shall also conform to the provisions of Indian electricity rules and other statutory regulations currently in force in the country.

In case Indian Standards are not available for any equipment, Standards issued by IEC/BS/VDE/IEEE/NEMA or equivalent agency shall be applicable.

4.0 SITE CONDITION

The ambient condition of the UPS System shall be:

Maximum Ambient Temperature	: 50°C
Minimum Ambient Temperature	: 15°C
Maximum Humidity at 35°C	: 95 %
Maximum Humidity at 41°C	: 70 %
Maximum Altitude above sea level	:100 Meter

5.0 TECHNICAL REQUIREMENTS OF UNINTERRUPTED POWER SUPPLY

5.1 The UPS shall be suitable for input power supply as defined hereunder

Voltage: 415V ± 10%, TPN
 Frequency: 50Hz ± 5%

5.2 Rating of UPS shall be as under

AC UPS shall be 2 x 100% 5KVA, 230V± 1%, AC UPS
 AC UPS shall be 2 x 100% 3KVA, 230V± 1%, AC UPS

5.3 In addition to above variations, the input voltage may be subjected to transient variations comprising voltage dip to 20% of normal voltage during motor start-up as well as voltage variations due to fault condition. UPS system shall be designed to operate satisfactorily while deriving the input power from an emergency diesel generator set.

5.4 UPS system shall also operate satisfactorily on input power supply having:

- i. The ratio of negative to the positive sequence components not exceeding 5% and**
- ii. Total current harmonic distortion at input not more than 5%.**

5.5 The incoming power supply to UPS will be provided by 2 Nos. feeders. one feeder shall feed the rectifier(s) while other shall supply power to stabilized by pass supply.

5.6 VOID

5.7 UPS configuration and operational requirements: Parallel Redundant UPS with by pass (100%Rating).

5.7.1 In this configuration, two sets of rectifiers and inverters shall be provided. Under normal conditions, when AC mains power is available, both the rectifiers shall operate in parallel and supply DC power for float/ rapid/ boost charging the battery and simultaneously to inverters. In case of failure in one rectifier, the other rectifier shall feed the complete load and the battery without any interruption. In case of incoming supply failure or failure of both rectifiers the battery shall feed the inverters without any interruption. Each rectifier shall be designed for simultaneously feeding complete inverter load and float/ rapid/ boost charging of both the battery banks to its rated capacity. Each rectifier shall be equipped with 'On Line' automatic as well as manual charging facility.

5.7.2 Normally both inverters will be synchronized with each other and with stabilized bypass supply. Both inverters shall operate in parallel and share the load equally. When a disturbance/ fault occurs in any one of the inverters, the faulty unit shall automatically get disconnected and the entire load shall be fed from the other inverter. In case both the inverters develop a fault, the complete load shall be transferred to stabilized by pass supply through the static switches and retransfer of load from stabilized bypass supply to the inverter shall be possible in auto as well as in manual mode.

5.8 UPS DESIGN AND PERFORMANCE REQUIREMENTS

5.8.1 Incoming AC supply shall be converted to DC through three phase full wave full controlled rectifiers. The rectifiers shall operate according to the constant voltage current limiting principle and shall incorporate a "Soft Start" feature to gradually accept load on initial energizing.

5.8.2 UPS system shall be DSP based.

Bidder to furnish following data along with their technical bid.

- 1. DSP chip part No.**
- 2. Make of DSP Chip**
- 3. Version of DSP chip**

5.8.3 The rectifier section of the UPS system shall be capable of precise regulation to prevent damage to the battery. The output voltage of rectifier's DC bus with out the battery shall be stabilized to within $\pm 1\%$ of set value during load variation between 0 to 100% of the rectifiers and specified mains input supply voltage variation.

5.8.4 VOID

5.8.5 Suitable protection shall be provided in the control circuits to guard against instability of phase controlled rectifiers due to electrical oscillations which may be present in the input supply as caused by emergency DG set.

5.8.6 The UPS system including the stabilized by-pass shall be galvanically isolated from input power supply system by providing double wound transformers. All transformers shall be natural air cooled, dry type suitable for location inside the panel. All rectifiers shall also have a double wound transformer at its input.

5.8.7 An RFI filter shall be provided. The production of radio frequency interference voltage shall not exceed the value of suppression grade N' as defined in VDE-0875. The performance of UPS system shall not get affected or in any way be degraded by the use of portable radio transmitter receiver in the vicinity of the UPS system or UPS room.

5.8.8 Transient/ surge protection circuit shall be provided in the input circuit to rectifiers to protect the UPS from surges & voltage spikes.

5.8.9 The UPS system shall be designed to draw power from mains supply at a minimum power factor of 0.85 while working at rated load in normal operating UPS configuration.

5.8.10 The UPS shall be provided with automatic sequence and power walk in circuit(s) with time delay of upto 30 sec such that the rectifiers and inverters can start operating automatically when incoming AC power is

restored allowing the UPS to be loaded automatically.

5.8.11 Facility for initial boost charging of batteries shall also be provided. The inverters may be disconnected during initial charging of the battery.

5.8.12 For battery sizing, the following factors shall be considered

5.8.12.1 Load Power Factor of 0.8.

5.8.12.2 Minimum ambient temperature as specified in Bid document.

5.8.12.3 Battery current shall be as under

$$\text{Battery current} = \frac{\text{UPS rated KVA} \times \text{Rated load p. f.}}{\text{UPS Efficiency} \times \text{End cell voltage} \times \text{No. of cells}}$$

5.8.12.4 Aging factor of 1.0

5.8.12.5 Backup time of 4 hours (2 no.x50% of rating) in case of mains power failure.

5.8.12.6 Minimum end cell voltage shall be 1.1 V per cell for Ni-Cd battery.

5.8.12.7 Battery state of charge factor of 0.95.

5.8.13 The rectifiers shall be designed to completely charge the Nickel cadmium batteries in a maximum time of 10 hours after complete discharge. Facilities shall be provided to initiate battery rapid charge operation by manual & automatic means. An auto charging sequence should be provided for the rapid and float charging based on current sensing. In addition to above, the charging shall be transferred from rapid to float mode after a preset time adjustable through 0-24 hours timer as back up protection against over charging.

5.8.14 The rectifiers shall be sized based on the maximum inverter input load when inverter is delivering its rated output at 0.8 p.f. lagging and recharge the battery to nominal rated capacity of the battery. The DC load imposed by the inverters shall be considered under the most severe operating conditions where only one rectifier is operating but the UPS load is equally shared by all the inverters. The rating of each rectifier shall be not less than the value calculated as follows:

For Nickel Cadmium Batteries= Inverter input current+ 0.2Ah (5hr. Rating of the battery)

Where Inverter input current = (Rated KVA capacity of UPS x Load power factor)/(Battery charging voltage X Inverter efficiency)

5.8.15 The DC rectifiers shall sense the battery charging current and adjust the DC bus voltage to maintain the charging current to preset level. A

separate current limit circuit shall also be provided for adjustment of battery current. The rectifiers shall be protected against reverse battery connection at DC link voltage bus. Subsequent to a discharge cycle when battery is connected to rectifier, the battery current shall be monitored, controlled and limited to set value automatically irrespective of the inverter input current.

5.8.16 The battery may be taken out of service for maintenance, during which period it shall be possible for the inverter to continue operation by drawing power from the rectifier. Ripple content at the DC link shall not exceed 2% even with battery disconnected.

5.8.17 Battery/ D.C. link shall be provided with a sensitive earth leakage protection.

5.8.18 The inverter shall be of the current limiting type (short circuit proof) and have nominal output voltage and frequency as specified. The inverter output voltage and frequency shall not exceed the operational tolerances, as measured at the output terminals of the unit during the following conditions of UPS loading:

5.8.18.1 Load variations between 0-100% of the rated output of UPS

5.8.18.2 Load power factor over the range of 0.7 lagging to unity.

5.8.18.3 Load current waveform having a relative harmonic content varying between zero and 50% the latter waveform having a crest factor not exceeding 2.5 and individual harmonics not exceeding the following values:

- 3rd harmonic- 44% of fundamental
- 5th harmonic- 33% of fundamental
- 7th harmonic- 1.8% of fundamental
- 9th harmonic- 7% of fundamental
- 11th harmonic- 10% of fundamental

5.8.18.4 The UPS output voltage waveform shall be pure sine wave under linear load conditions, and not exceeding 5% under the non-linear load conditions specified above.

5.8.19 The inverter shall control the output voltage of the UPS such as to maintain synchronism with the mains bypass voltage during variations in mains frequency upto the limits specified.

5.8.20 During variations in mains frequency exceeding these limits, the inverter shall revert to internal frequency control.

5.8.21 It shall be possible to vary the inverter output voltage steplessly within $\pm 5\%$ of the specified output voltage. This adjustment shall be possible to be made when the inverter is in operation.

5.8.22 The steady state output voltage and frequency (free running) variation of inverters shall not exceed $\pm 1\%$ from the set value for specified input power supply conditions from no load to full load condition and load power factor variation from 0.7 lag to 1.0.

5.8.23 The UPS system shall be able to operate satisfactorily on rated loads (in KVA) with power factors in the range of 0.7 lag to 1.0. The overall efficiency of the UPS system shall not be less than 80% at rated load and 0.8 p.f.

5.8.24 The UPS shall have capacity to deliver a minimum overload of 110% for 60 min, 125% for 10 minutes and 150% for 60 sec. UPS shall be provided with current limit circuit to avoid excessive loading beyond its permissible over load with stand capability.

5.8.25 The inverters shall be 'phase locked' to the stabilized by pass power supply as long as stabilized by pass supply frequency remain within $\pm 5\%$ of nominal. When by pass supply frequency variation, exceeds the above limits, the inverters shall be delinked from mains. Free running frequency tolerance limit shall not exceed $\pm 1\%$. Facility shall also be provided for adjustment of range of synchronizing frequency.

5.8.26 Unless otherwise specified, the UPS system output voltage variation shall not exceed $\pm 10\%$ and complete recovery to normal steady state shall be within 0.1 Sec. The above requirement shall be complied for following transient disturbances.

5.8.26.1 100% step load and unload (For single UPS and hot standby UPS)

5.8.26.2 50%step load (for parallel redundant UPS)

5.8.26.3 Momentary interruption in power supply

5.8.26.4 Load transfer to stabilized bypass supply

5.8.26.5 Complete load transfer to other healthy inverter when one of the two parallel inverters develop a fault.

5.8.27 For 3 phase UPS system, the maximum output voltage and angle variation between the phases should not exceed 5% and 3 degrees respectively even under the condition of 100% unbalanced loading of the 3 phase output.

5.8.28 UPS system shall be suitable for floating output in case of single phase system.

5.8.29 The stabilized bypass supply shall be designed to regulate the output voltage within $\pm 2\%$ of the rated voltage over complete range of load from no load to full load and for specified input supply voltage variation. The type of Voltage stabilizer shall be static type.

5.8.30 The stabilized by pass supply shall have a continuous current rating equivalent to the rated output of the UPS unit and be capable of conducting a current ten times the rated output for the duration more than the fault clearing time of the type of fuse provided. The load transfer devices shall comprise of continuously rated static elements in both inverter and stabilized by pass supply.

5.8.31 Adequately rated static switches in required number & configuration shall be provided in the inverter(s) output and stabilized bypass supply to ensure positive isolation of faulty inverter section such that the other inverter and bypass circuits do not feed in to the fault leading to undervoltage/trip. The short time rating of all the static switches shall be at least 10 times the rated output for the duration more than the fault clearing time of the type of fuse provided.

5.8.32 Facility shall be provided to manually and automatically initiate transfer of the load from inverters to the stabilized by pass supply and from stabilized by pass supply to the inverters. Under voltage and over voltage sensing levels to initiate transfer shall be adjustable. The maximum transfer time between inverters and bypass supply shall not exceed 4 msec and 20 msec in synchronous and asynchronous mode respectively.

5.8.33 The criteria for load transfer:

5.8.33.1 Load transfer from inverter to the stabilized by pass supply shall be as follows:

The load transfer shall only be possible when:

A. The stabilized bypass output voltage is within $\pm 5\%$ of rated UPS output voltage and the mains bypass frequency is within $\pm 4\%$.

B. Auto-transfer of the load from inverter to stabilized by pass supply shall be inverted when:

The inverter output voltage drops below 95% of nominal output voltage under steady state condition and/or if the inverter output voltage falls below 90% of the nominal value under transient conditions.

OR

The inverter output voltage exceeds 105% of the nominal output voltage under steady state condition and/or if the inverter output voltage reaches 110% of the nominal value under transient conditions.

OR

The inverter output current exceeds its tolerable limits.

C. Retransfer of load from stabilized bypass supply to the inverter shall be as follows:

The load transfer shall be possible when: The inverter output voltage is within $\pm 5\%$ of nominal output voltage for more than 5sec. and Inverter output and stabilized bypass supply are synchronized.

5.8.33.2 Retransfer of load from stabilized by pass to the inverter shall be done auto-manual only. For automatic retransfer of load to the inverter, then the retransfer of load to the inverter shall be inhibited following four automatic transfers of load to stabilize by pass within a period of 5 minutes.

5.8.34 All breakers shall be adequately rated for continuous rating as well as breaking capacity as applicable. Paralleling of breaker/ switch/ contactor poles to achieve the required current rating is not acceptable. All output isolating device shall be double pole type.

5.8.35 All electronic power devices including thyristors, transistors (IGBTs), diodes etc. shall be rated under operating conditions for approximately 200% of the maximum current carried by the device. All other electrical components such as transformers, reactors, breakers, contactors, switches, busbars etc. shall be rated for at least 125% of the maximum required rating. No electronic device shall be subjected to PIV greater than 50% of its rated value.

5.8.36 All the thyristors, power transistors, diodes and other electronic devices of UPS shall be protected with high speed semiconductor fuses. It's co-ordination between fuse and semi-conducting power devices shall be ensured.

5.8.37 VOID

5.8.38 All PCBs shall be provided with a transparent epoxy coating for environmental protection and topicalization. They shall be suitably located away from heat sources.

5.8.39 All electronic control and monitoring printed circuit cards shall be installed in Standardized electronic equipment frames and shall be fitted with suitable means for easy removal. The frames shall incorporate guides for PCBs to facilitate correct insertion of PCB's and shall allow access to the wiring side of the connectors. All PCBs shall be placed in a manner to avoid replacement of a PCB by a wrong spare PCB. Monitoring points shall be provided on each of the PCBs and the PCB shall be firmly clamped in position so that vibration or long usage does not result in loose contacts. Failure of each PCB shall be indicated by visual alarms. Visual fault diagnostics shall preferably identify faults upto various sections in the card.

5.8.40 Forced ventilation of panel, if provided, shall be supplemented by 100% redundant fans. In normal operation, normal & redundant fans shall run together. The power supply for the fans shall be tapped from the inverter output. However, the rating of the UPS shall be the net output of UPS after deducting power consumption for fans etc. In case of non-operation of 50% of running fans the UPS output shall not be affected. The fans shall be arranged to facilitate removal of faulty fan for maintenance without requiring system shutdown.

5.8.41 Maximum noise level from UPS system at 1 meter distance, underrated load with all normal cooling fans shall not exceed 75 dBA.

5.8.42 Material: UPS panel enclosures shall be fabricated from Structural/ CRCA sheet steel. The frames shall be fabricated by using minimum 2 mm thick CRCA sheet steel while the doors and covers shall be made from 1.6 mm thick CRCA sheet steel. Wherever required suitable stiffeners shall be provided.

The panels shall be free standing, fitted with suitable louvers for ventilation and cooling fans as required. Hinged doors shall be provided at the front and back with dust tight gaskets. Inter panel sheet steel barriers shall be

provided. The enclosure shall provide minimum IP-42 degree of protection. The maximum and minimum operating height of the switches shall be 1800 mm and 300 mm respectively.

5.9 CELLBOOSTER

5.9.1 Cell booster shall be suitable for charging one to six cells within a time duration as specified. It shall be suitable for charging not only the new cells before being introduced to the battery bank but also any treatment to be given to the individual weak cells. Cell booster shall be suitable for 240 V \pm 10%, 50 Hz \pm 3% SPN input power supply. Cell booster output voltage shall be in the range of 0-12V for Nickel Cadmium batteries respectively. Cell booster shall be sized as under:

For Ni-Cd battery= 0.2x Ah of cell (5hr.Rating of the cell)

5.9.2 Cell booster shall have heavy duty switch fuse or MCCB on AC in-comer and DC output, AC voltmeter, DC ammeter and voltmeter, indicating lamp for AC/ DC power ON. The output voltage and current of cell booster shall have manual control using a suitably rated variac or a full wave controlled rectifier bridge. Suitable interlock shall be provided so as to ensure that the variac/controlled rectifier is at its minimum position while switching on the cell booster. Cell booster shall be portable type with wheels. Each cell booster shall be supplied with 5m long flexible copper conductor. PVC insulated and braided cable for AC in-comer power supply and DC output connection to the battery.

5.10 RELIABILITY

5.10.1 All necessary care shall be taken in selection, design, manufacture, testing and commissioning of the equipment for ensuring high system reliability. Following design consideration shall be taken into account to ensure maximum availability of the system.

5.10.1.1 There shall be no common device, between main and redundant units (e.g. master oscillators etc.) in order to ensure that the failure of the same does not cause shut down of more than one unit.

5.10.1.2 It shall be possible to take out any individual power circuit for maintenance without affecting the total UPS supply.

5.10.1.3 Series-parallel combination of smaller devices to achieve required rating shall not be acceptable.

5.10.1.4 Vendors shall offer their nearest higher Standard size that will meet the requirement of the specified UPS rating.

5.11 FAULT DIAGNOSTIC UNIT

5.11.1 Each UPS set shall have in built 'ON line' fault diagnostic unit. This shall supervise the UPS operation continuously. It shall identify and locate faults immediately so that corrective action can be taken. Fault Diagnostic unit shall be compatible to hook up with Owner's PC through RS232/RS485 interface. The software shall be provided on a CDROM.

5.11.2 Option for print shall be available from Owner's PC though RS232/RS485. Supply of PC is not in bidder's scope.

5.11.3 In addition to the above, any other feature which vendor feels may be useful shall be provided and highlighted separately.

5.11.4 If any additional equipment (e.g. bin connector, adaptor cards etc.) are required for connecting this unit with UPS system as well as with Owner's PC. The same are also to be included in the bidder's scope.

5.12 FABRICATION

5.12.1 Rectifier and inverter, stabilized bypass supply and static switch sections shall be suitably housed in sheet steel panels complete with all inter connections.

5.12.2 UPS panels and cell booster enclosures shall be fabricated from Structural/ CRCA sheet steel. The frames shall be fabricated by using minimum 2 mm thick CRCA sheet steel while the doors and covers shall be made from 1.6 mm thick CRCA sheet steel. Wherever required suitable stiffeners shall be provided.

5.12.3 The panels shall be free standing, fitted with suitable louvers for ventilation and cooling fans as required. Hinged doors shall be provided at the front and back with dust tight gaskets. Inter panel sheet steel barriers shall be provided. The enclosure shall provide minimum IP-42 degree of protection. The maximum and minimum operating height of the switches shall be 1800mm and 300mm respectively.

Power cables shall be with aluminum / copper conductors and control cables shall be with copper conductors. All the cable connections shall be from bottom and front of the panel. A removable bolted gland plate shall be provided along with single compression type nickel plated brass cable

5.12.4 Glands for external cable connections. Clamp type terminals shall be used for connection of all wires up to 10 sqmm. Bolted type terminals suitable for cable lugs shall be provided for wire size above this. Tinned copper lugs for all external connections shall be provided with the panels.

Bus bars shall be used in all power circuits which are rated minimum 100 Amp. Copper conductor PVC insulated cables or wires of 660V grade shall be used for power circuits rated less than 100 Amp. Bus bars shall be colour coded and live parts shall be shrouded to ensure complete safety to personnel intending routine inspection by opening the panel doors. All the equipment inside the panel and on the doors shall have suitable name plate

and device tag numbers as per the schematic diagram. All wires shall be ferruled and terminals shall be numbered.

MCCBs and load break power switches shall be mounted inside the panel. The control switches shall be rotary type, mounted on the door and shall be externally operable. Panel illumination lamp controlled through a door switch shall be provided for illumination in each panel. All instruments shall be analogue/digital, switchboard type, back connected, (72x72) mm. square (Analogue type) of reputed make. Analogue instruments scale shall have red mark indicating maximum permissible operating rating. Separate test terminals shall be provided for measuring and testing of the equipment to check the performance.

5.12.5 A suitably sized earth bus shall be provided at the bottom of the panels running through the panel's line up with provision for earth connection at both ends to purchaser's main earth grid. The minimum size of earth bus shall be (25x3) mm copper. All potential free metallic parts of various equipment shall be earthed suitably to ensure safety.

5.12.6 All panels shall be of same height so as to form a panel lineup which shall have good aesthetic appearance.

5.12.7 Inside the panels, the controls connections shall be done with 660V grade PVC insulated wires having stranded copper conductors: 1.5 sqmm size wire shall normally be used for circuits with control fuse rating of 10 Amp. Or less. For control circuit having fuse of 16 Amps, 2.5 sqmm size wire shall be used. Control wiring for electronic circuits shall be through flat ribbon cable or through copper wire minimum of 0.5mm dia.

5.12.8 All control wiring shall preferably be enclosed in plastic channels or otherwise neatly bunched together. Each wire shall be identified at both ends by PVC ferrules. Ferruling of wires shall be as per relevant IS.

5.12.9 All metal surfaces shall be thoroughly cleaned and de-greased to remove mill scale, rust, grease and dirt. Fabricated structures shall be pickled and then rinsed to remove any trace of acid. The undersurface shall be prepared by applying a coat of phosphate paint and a coat of yellow zinc chromate primer. The under-surface shall be made free from all imperfections before undertaking the finished coat.

5.12.10 After preparation of the under-surface, the panels shall be spray painted with two coats of epoxy-based final paint or shall be powder-coated. Spray painted finished panels shall be dried in stoving ovens in a dust-free atmosphere. Panel finish shall be free from imperfections like pin holes, orange peels, run off paint etc. The vendor shall furnish the painting procedure along with the bids.

5.13 INSPECTION AND TESTING

During fabrication, the equipment shall be subjected to inspection by Owner or by an agency authorized by the Owner. Manufacturer shall furnish all

necessary information concerning the supply to Owner's inspector. Tests shall be carried out at manufacturer's works under his care and expense. UPS system shall be tested in accordance with applicable Standards. The following acceptance tests shall be performed on each UPS system as a minimum. All tests shall be witnessed by Owner or its authorized representative and 4 weeks prior notice shall be given before the date of commencement of tests. The tests certificates indicating test results shall be furnished.

Following system acceptance tests shall be conducted on each UPS system:

5.13.1 INSULATION TESTS

Insulation tests shall be performed as per IEC60146-1-1.

The insulation tests shall be carried out using an AC power frequency voltage or by using DC Voltage at the choice of the vendor. In case of AC power frequency voltage test, the test voltage at the frequency available in the test facility or at the rated frequency, but not exceeding 100 Hz, of the full value starting at a maximum of 0.5 p. u. The unit on test shall withstand the specified voltage for 1 minute.

In case DC voltage is used for the test, the value of DC voltage shall be equal to the crest value of the test voltage specified in the table.

$V_p/\sqrt{2}$ (V^* , is the highest crest voltage to be expected between any pair of terminals)	Test Voltage (AC rms value)
$\leq 60V$	500V
$\leq 125V$	1000V
$\leq 250V$	1500V
$\leq 500V$	2000V

5.13.2 INTERCONNECTION CABLE CHECK

The inter connection cables are to be checked for correct wiring, insulation and quality of the terminations.

5.13.3 A.C.INPUT FAILURE TEST

The test is performed with the test battery and carried out by tripping A.C.in incoming circuit breakers or by switching off rectifiers and bypass supply at the same time. Output voltage and frequency variations are to be checked for specified limits.

5.13.4 A.C.INPUT RETURN TEST

The test is performed by closing A.C. incoming circuit breakers or is simulated by energizing rectifiers and bypass supply. Proper operation of rectifiers starting and voltage and frequency variations of output are to be checked.

5.13.5 SIMULATION OF PARALLEL REDUNDANT UPS FAULT

The test is applicable for UPS with parallel redundant configuration. Fault of rectifier or inverter are to be simulated and output transients are to be recorded.

5.13.6 TRANSFER TEST

Transients shall be measured during load transfer from inverter to by pass supply caused by simulated fault and load retransfer after clearing the fault.

5.13.7 REGULATION TEST

5.13.7.1 This test shall be carried out by measuring input voltage, input current, output voltage, output current, DC link voltage, output distortion, input active power, output active power and frequency at no load, 50% load and 100% load at 0.7 and 0.8 p.f.

5.13.7.2 Following parameters of rectifiers and inverters are to measured:

5.13.7.3 Measurement shall be carried out in the rectifier float charge mode and in rapid charge mode. Measurement shall be at nominal A.C. voltage and at no load, 50% load and 100% of rectifier full load. Rectifier measurement shall comprise of:-

- a. Input voltage, frequency, phase current and input power. D.C. output voltage and current.
- b. Ripple current at the DC link bus shall be recorded after isolating the test battery.

5.13.7.4 Inverter measurement shall also be at no load, 50% load and 100% load of inverter rated output current and shall be repeated for inverter D.C. input voltages corresponding to battery float charge operation as well as rated inverter maximum and minimum input D.C. voltage. Measurement shall comprise of:

- i. Input voltage, input current.
- ii. Output voltage, frequency and wave form distortion, output power and current.

5.13.8 UPS EFFICIENCY

This shall be determined by the measurement of the active power input and output at rated p.f. for 50%, 75% and 100% load.

5.13.9 CURRENT DIVISION IN PARALLEL UPS

Load sharing between UPS units shall be measured with a dummy load under parallel redundant UPS configuration.

5.13.10 LIGHT LOAD TEST

The test is to verify that all functions of the UPS system operate properly. The load applied is limited to some percentage of rated loads. The following points are to be checked.

- a. Output voltage and frequency and correct operation of meters.
- b. Operation of all control switches and other means to put UPS system into operation.
- c. Functioning of protective and warning devices

5.13.11 BURN-IN TEST FOR PRINTED CIRCUIT BOARDS

PCB's and other electronic components sub-assemblies shall undergo a burn- in test for 96 hours at 50°C at a voltage varied between the maximum and minimum supply voltage. In case of failure of any component during testing, the tests shall be repeated after replacement of the faulty component.

5.13.12 CONTINUOUS FULL LOAD TEST AT 0.8 POWER FACTOR WITH TEMPERATURE RISE MEASUREMENT

5.13.12.1 The test is required to be performed by connecting resistive load or resistive and inductive load to the UPS system output. The load shall be placed outside the test room to avoid influences of its heat upon UPS ventilation.

5.13.12.2 UPS system in this test shall undergo a complete full load test for 32 hours at 0.8 power factor. Out of these 32 hours, each inverter section shall be subjected to full load test for 8 hours. Both invertors sections operating in parallel shall be subjected to full load test for 8 hours and the for remaining 8 hours, the by pass section shall be subjected to full load test. Steady state temperature of rectifier transformer, Rectifier set, D.C. choke, inverter set, static switch etc. shall be recorded during the test. The temperature of all UPS panels is also to be recorded.

5.13.13 AUXILIARY EQUIPMENT AND CONTROL CIRCUIT TESTS

The correct functioning of all measuring instruments, alarms, indications, protection devices and controls are to be verified. The functioning of auxiliary devices such as lighting, cooling fans, annunciation etc. should be checked.

5.13.14 SYNCHRONIZATION TEST

Frequency variation limits of inverter are to be tested by feeding bypass supply incoming line by variable frequency generator and inverter synchronization limit is to be checked as specified.

5.13.15 UNBALANCED LOAD TEST (FOR 3 PHASE UPS ONLY)

Unbalance load at specified limits is applied to the UPS system. The specified voltage and phase angle variation may be checked for compliance with specified values.

5.13.16 OUTPUT VOLTAGE UNBALANCE (FOR 3 PHASE UPS ONLY)

Output voltage unbalance shall be checked under symmetrical load conditions and unbalance load conditions. Phase to phase and phase to neutral output voltage are to be observed. The voltage unbalance is the ratio of highest phase voltage minus lowest phase voltage to the average value. Phase angle variation may be measured for phase to phase and phase to neutral voltages

5.13.17 OVERLOAD CAPABILITY TEST

Specified values of short time overload are to be applied for specified time interval. Values of output voltage and output current are to be recorded.

5.13.18 SHORT CIRCUIT CURRENT CAPABILITY TEST

Specified short circuit current capability is to be tested by application of a short circuit to UPS output if necessary via a suitable fuse. Short circuit current is to be recorded.

5.13.19 SHORT CIRCUIT FUSE TEST

Fuse tripping capability of the UPS system is to be tested by short circuiting the UPS system output via a specified rating of fuse. The test is carried out at an appropriate UPS load under normal operation.

5.13.20 RESTART

Manual restart to be tested after complete shutdown of UPS system.

5.13.21 OUTPUT OVER VOLTAGE

Operation of output over voltage protection is to be checked.

5.13.22 DYNAMIC RESPONSE TEST

Output recording at different loads and operating condition to be done.

5.13.23 HARMONIC COMPONENTS

Harmonic components of output voltage are to be recorded at no load, 50% load and 100% load conditions. Harmonic voltages caused by UPS system components in the A.C. incomer side shall be recorded at site.

5.13.24 EARTH FAULT TEST

An earth fault is to be applied to the output terminal of UPS system. UPS output transients are to be measured. An earth fault is also to be applied to the battery terminal and UPS system output transient shall be measured.

5.13.25 AUDIBLE NOISE TEST

5.13.25.1 The audible noise is required to be measured at 1 meter distance from UPS system in atleast 4 to 5 locations and its value shall be within permissible limit.

5.13.26 The detailed test schedule and test procedure shall be formulated in line with above. Vendor shall also indicate the maximum limit. Allowable tolerance for each test result along with the test procedures.

5.13.27 If tests show that certain requirements of the specifications are not met, 'Vendor' shall make necessary corrections to the equipment so that it satisfies all the requirements before acceptance is made.

5.13.28 SITE ACCEPTANCE TESTS

Vendor shall furnish Site Acceptance Tests procedure to be followed. Final acceptance testing along with the batteries shall be done at site. It shall be Vendor's responsibility to arrange necessary instruments and tools as required by their commissioning engineer for these tests.

6.0 TECHNICAL SPECIFICATION OF BATTERY BANK

The intent of this Specification is to define the design, manufacture, testing & supply of stationary Nickel Cadmium batteries for DC power system /AC UPS application.

6.1 CODES AND SPECIFICATIONS

The equipment shall comply with the requirements of the latest revision of the following Standards issued by BIS (Bureau of Indian Standards) unless otherwise specified.

IS-10918: Specification for Vented type Nickel Cadmium batteries

In case of imported equipment, Standards of the country of origin shall be applicable if these Standards are equivalent or more stringent than the applicable Indian Standards.

The equipment shall also conform to the provisions of Indian Electricity Rules and other statutory regulations currently in force in the country.

In case Indian Standards are not available for any equipment, Standards issued by IEC/ BS/ VDE/ IEEE/ NEMA or equivalent agency shall be applicable.

6.2 GENERAL REQUIREMENTS

6.2.1 The offered equipment shall be brand new with state of the art technology and proven field track record. No prototype equipment shall to be offered.

6.2.2 Vendor shall ensure availability of spare parts and maintenance support services for the offered equipment for at least 10 years from the date of supply.

6.2.3 Vendor shall give a notice of at least one year to the end user of equipment before phasing out the product/ spares to enable the end user to place order for spares and services.

6.3 TECHNICAL REQUIREMENTS

6.3.1 The Nickel Cadmium cell/ battery shall be suitable for float duty operation with a constant voltage permanently applied to its terminals which is sufficient to maintain it in a state close to full charge and shall be designed to supply load in the event of normal power supply failure. **Battery shall be medium discharge type.**

6.3.2 The standard rated ampere hour capacity of the cell/ battery shall be at a reference temperature of 27°C, constant current discharge at 5 hours rate (C5) and an end cell voltage of 1.1 V/cell.

6.3.3 Ampere hour of the battery shall be selected based on the following:

- a. Minimum site ambient temperature of 15°C
- b. Discharge duty cycle.
- c. End cell voltage.
- d. Ageing factor of 1.0
- e. Design margin of 1.0
- f. State of charge of 0.95
- g. Capacity rating factor- As per OEM standard

6.3.4 Number of cells shall be decided by the Vendor on the basis of maximum permissible voltage to the load when batteries are float charged while feeding the Load and minimum DC system voltage.

6.3.5 The battery shall be suitable. For being boost charged to fully charged condition from fully discharged condition within 10 hours, unless otherwise specified.

Battery assembly shall be supplied dry and uncharged. Dry electrolyte and required quantity of electrolyte liquid with 10% extra shall be delivered with the battery in suitable non returnable sealed containers, unless otherwise specified.

6.3.6 Each cell shall have a separate container. The cell container shall be of high strength alkali resistant material and designed to withstand

mechanical stresses, shocks and vibrations. The cell container shall be translucent/transparent.

6.3.7 The terminal posts shall be of nickel plated steel. The terminals shall be suitable for short circuit current and specified discharge current without damage to the cell as a result of terminal heating.

6.3.8 Stationary Nickel Cadmium cells shall be designed to withstand the mechanical stresses encountered during normal transportation and handling.

6.3.9 Flame arrestor shall be mounted on the cell so that all the vented gases diffuse through the arrestor to the outside environment. The construction of the arrestor shall be such that hydrogen burning on the external surface of the arrestor shall not propagate back into the cell to cause explosion.

6.3.10 The following information shall be permanently marked on the cell.

- a. Nominal voltage
- b. Name of manufacturer/model reference
- c. Rated capacity in ampere hours (Ah) with End Cell Voltage
- d. Voltage for float operation at 27°C with tolerance of $\pm 1\%$, Month and year of manufacture
- e. Polarity Marking.

6.3.11 Each set of battery shall be supplied with all the accessories, including, but not limited to the following:

- a. Mild steel battery stand pretreated and epoxy painted /PVC coated.
- b. Inter cell, inter row and interbank connectors and end take offs. These shall be of tin plated copper/flexible-insulated copper cable.
- c. Stand insulator.
- d. Cell number plates, Lugs for cable termination, as required.
- e. Any other accessories required for completion of the project.

6.3.12 PERFORMANCE

Nickel Cadmium batteries shall have been type tested to meet the performance requirements for each design and Ah rating of cells as per Standards IS-10918

6.3.13 FABRICATION

6.3.13.1 Flame arrestor shall be mounted on the cell so that all the vented gases diffuse through the arrestor to the outside environment. The construction of the arrestor shall be such that hydrogen burning on the external surface of the arrestor shall not propagate back into the cell to cause explosion.

6.3.13.2 Each cell shall have a separate container. The cell container shall be of high strength alkali resistant material and designed to withstand

mechanical stresses, shocks and vibrations. The cell container shall be translucent/ transparent.

6.3.14 INSPECTION AND TESTING

6.3.14.1 Batteries shall be subject to inspection by Owner or by an agency authorized by the Owner to assess the progress of work. The manufacturer shall furnish all the necessary information concerning the supply to Consultant/ Owner's representative.

6.3.14.2 Consultant/ Owner's Representative shall be given free access in the works from time to time for stage wise inspection and progress reporting. Four weeks advance notice shall be given to witness the final routine tests and other tests as agreed upon.

6.3.14.3 Following tests shall be carried out as a minimum for each Ah rating of cells/battery:

- a. Routine test
 - i. Physical examination test.
 - ii. Polarity and absence of short circuit.
 - iii. Dimension, Mass and layout.
 - iv. Marking and packing.
- b. Acceptance test
 - i. Marking and packing.
 - ii. Verification of dimensions.
 - iii. Test for Ah capacity
 - iv. Test for voltage during discharge
 - v. Internal resistance test.
- c. Type test
 - i. Verification of constructional requirement.
 - ii. Test for voltage during discharge.
- iii. Test for Ah capacity.
 - iv. Test for charge retention/loss of capacity
 - v. Air pressure test.
 - vi. Ampere hour and Watt-hour efficiency test.

6.3.14.4 Battery duty cycle test to meet the load cycle requirement shall also be performed at site after installation as part of commissioning.

7.0 MARKING, PACKING AND SHIPMENT

All the equipment shall be divided in to several shipping sections for protection and ease of handling during transportation. The equipment shall be properly packed for transportation by ship/rail or trailer. The equipment shall be wrapped in polyethylene sheets before being placed in wooden crates /cases to prevent damage to the finish. Crates /cases shall have skid bottoms for handling Special notations such as Fragile', ' This side up', ' center of gravity', `weight', 'Owner's particulars', `PO nos.' etc. shall be clearly marked on the package together with other details as per purchase order. The equipment may be stored outdoors for long periods before

installation. The packing shall be suitable for outdoor storage in areas with heavy rains and high ambient temperature unless otherwise agreed.

8.0 ERECTION, INSTALLATION AND COMMISSIONING AT SITE:

8.1 The fabrication works along with supply of materials required for construction of the foundation for installing the UPS and battery banks to be installed inside the porta center at respective site locations has to be carried out by bidder. Refer P106A-00-DWG-E004 for the layout drawing of the porta cabin.

8.2 Installation and Commissioning of the UPS system shall be carried out by the successful bidder at site.

8.3 The installation shall be performed in strict accordance with shop drawings, specifications, and the manufacturer's instructions and as per tender specifications.

8.4 All materials required for installation and commissioning shall be in the scope of the bidder. This includes supply of battery cable of rated capacity from battery bank to UPS System (approx. length 2 X 30 meters) for each site.

8.5 The successful bidder shall provide all tools and equipment, all safety gadgets for safe work, labour, appliances, apparatus etc. at his cost required to carry-out the installation and commissioning work.

8.6 The successful bidder shall be responsible for safety of its personnel and equipment during the installation and commissioning work.

8.7 During the installation & commissioning job, the bidder shall strictly ensure that all the cut ends of cables, packing materials, leftover items are removed from site after completion of work. No environmental damage shall be done while carrying out the job.

8.8 Bidder shall furnish the services of factory-trained personnel as required during installation and through the warranty period to inspect the installation, supervise startup of equipment installed, and repair the equipment when required. Service requests shall be answered and acted upon promptly.

8.9 The responsibility for performance to the specifications shall not be divided among individual component manufacturers, but must be assumed solely by the bidder(supplier). This includes UPS system design, manufacture, test etc.

8.10 Bidders should confirm in the technical bid that installation & commissioning and TPI charges are included in their offer.

8.11 Cost of Installation & commissioning charges should be quoted separately. These charges should include amongst others to and from fares,

fooding, boarding/ lodging, local transport at sites and other expenses of the service personnel during their stay at site.

9.0 SERVICE AND WARRANTY

9.1 Warranty for materials shall be 18 months from the date of despatch/ shipment or 12 months from the date of successful commissioning, whichever is earlier.

9.2 The supplier shall ensure adequate and prompt after sales service free of cost during warrantee/guarantee period. In case of accessory /component supplied by other manufacturers, the successful bidder shall furnish a guarantee/warrantee from the manufacturer for the same before the UPS System is taken over.

9.3 The nature of after sales service, which can be provided by the successful bidder, during initial erection and commissioning as also subsequent operation shall be clearly stated in the quotation.

9.4 The manufacturer must have a local authorized dealer in North East India who can provide factory trained servicemen, the required stock of replacement parts, technical assistance, and warranty administration. Documentary evidence on the above should be submitted along with the techno-commercial bid.

9.5 The manufacturer's authorized dealer shall have sufficient parts inventory to maintain over the counter availability of at least 90% of any normal wear and tear parts. (Belts, hoses, filters, turbines, pumps, safeties, regulators, injectors, gaskets).

9.6 The manufacturer's authorized dealer shall have factory trained service representatives and tooling necessary to install and commission all provided equipment.

9.7 The warranty coverage shall include repair parts, labor, reasonable travel expense necessary for repairs at the jobsite, and expendables used during the course of repair or any defects in the UPS or battery during warranty period shall be replaced by the party at his cost without any extra charge to AGCL.

9.8 Offer received without written warranties as specified shall be rejected entirety.

10.0 ORIENTATION

The bidder shall provide a complete orientation for AGCL's operating personnel. Orientation program shall be of minimum 2 days duration and shall include both classroom and hands-on training at the location of installation of the UPS. Topics covered shall include control operation, schematics, troubleshooting, wiring and diagrams, meters, indicators, warning lights, shutdown system and routine maintenance etc.

11.0 GENERAL NOTES TO TECHNICAL SPECIFICATION

11.1 All sundry equipment, fittings, assemblies, accessories, hardware items, foundation bolts, supports, termination lugs etc. for electrical connections, cable glands, junction boxes and all other sundry items for proper assembly and installation of the various equipment and components of the UPS System are deemed to have included in the tender, irrespective of the fact that whether such items are specifically mentioned in the tender documents or not.

11.2 In their offer the bidder must mention their detailed comments point-wise against each point of tender specifications. Any deviation from the tender specification shall be specifically mentioned. Specific type and make of equipment shall be mentioned. All the information required as per tender specifications must be submitted.

12.0 QUALITY ASSURANCE PLAN (QAP)

Bidder shall submit Quality Assurance Plan (QAP) for respective equipment within 15(fifteen) days of award of contract. Manufacturer shall follow his standard procedures for Quality Assurance and control. However, the standard procedures shall be submitted to the owner in extent of order. The procedure shall be in such a form as to clearly delineate the manufacturing sequence and major inspection points and to reference manufacturer's test and inspection procedures. The owner will inform the manufacturer as to which of the Inspection points and tests will be witnessed.

13.0 SUBMITTALS

The following documents are to be submitted along with the technical bid.

- 13.1 GA drawing of UPS panel and battery bank.
- 13.2 Foundation drawing of UPS panel and battery bank.
- 13.3 Complete Wiring diagram and schematics of UPS with rectifier.
- 13.4 Type test report of UPS and battery.
- 13.5 Battery sizing calculation with DC bus voltage.
- 13.6 K-factor chart of battery.
- 13.7 Temperature correction factor curve of battery.
- 13.8 Datasheet as specified
- 13.9 Manufacturer's product catalogues

14.0 DEVIATION

14.1 Deviation in respect of any specification as detailed above should be highlighted with technical calculation /catalogue/literature etc. in the form and format as given in Annexure-A3.

14.2 The bidders are not allowed to deviate from the principal requirements of the Specifications. However, the bidder is required to submit with his bid in the relevant format a detailed list of all deviations without any ambiguity.

In the absence of a deviation list, it is understood that such bid conforms to the bid specifications and no post-bid negotiations shall take place in this regard.

14.3 The discrepancies, if any, between the specification and the catalogues and / or literatures submitted as part of the offer by the bidders, shall not be considered and representations in this regard shall not be entertained.

15.0 GENERAL NOTES FOR BIDDERS

15.1 Materials shall be brand new, unused & of prime quality.

15.2 Pre-despatch/ Shipment Inspection & testing charges including TPI, if any, must be included in the total price of each genset. To and fro fares, boarding/ lodging and other en-route expenses of AGCL's Inspection team for carrying our inspection shall be borne by AGCL.

15.3 Third party inspection (TPI) shall conduct and record all the test as specified in the tender specification. The materials should be inspected by any reputed third party inspection agency given below at supplier's cost and inspection report shall be enclosed along with the shipping/ dispatch documents.

- 15.3.1. GERMANISCHER LLOYD
- 15.3.2. BUREAU VERITAS
- 15.3.3. MOODY INTERNATIONAL
- 15.3.4. SGS
- 15.3.5. CEIL
- 15.3.6. TUV
- 15.3.7. VELOSI
- 15.3.8. ABS
- 15.3.9. MEENAR GLOBAL
- 15.3.10. VCS QUALITY SERVICES PRIVATE LTD.
- 15.3.11. LLOYD REGISTER OF INDUSTRIAL SERVICES
- 15.3.12. EIL
- 15.3.13. H&G
- 15.3.14. TCE
- 15.3.15. PDIL
- 15.3.16. MECONS
- 15.3.17. DNV

In case the bidder is not a manufacturer, a certificate from the manufacturer to the effect that the manufacturer possesses the required facilities for testing of the equipment/ material and that they agree for the third party inspection should be enclosed along with the techno-commercial bid. AGCL may at its discretion conduct FAT at its own cost prior to dispatch of at the bidder/ manufacturer's premises in addition to the third party inspection done by the bidder.

ANNEXURE B-1
TECHNICAL DATASHEET FOR UPS

1.00	GENERAL	
1.01	Service / Application	
1.02	Supplier	
1.03	Make & Model	
1.04	Country of Origin	
1.05	Operation	
1.06	Degree of enclosure protection & temp. class	
1.07	System type	
1.08	Mounting type	
1.09	Access	
2.00	ENVIRONMENTAL CONDITIONS	
2.01	Place of Installation	
2.02	Site/environmental condition	
2.03	Area Classification	
3.00	SUPPLY NETWORK CHARACTERSTICS	
3.01	Voltage	
3.02	Phase Number	
3.03	Frequency	
3.04	Neutral System	
3.05	Upstream Protection (Supply by others)	
4.00	USE NETWORK DATA	
4.01	Output power	
4.02	Output Voltage	
4.03	No. of Phases	
4.04	Frequency	
4.05	Neutral System	
4.06	Online battery monitoring & Diagnostic facility	
4.07	Communication facility	
5.00	RECTIFIER	
5.01	Type: 3,6,12 PULSES	
5.02	Rectifier Quantity/ Sizing (50%, 100%)	
5.03	Input Transformer	
	a. Rating	
	b. Rated primary voltage	
5.04	Operating Condition	
	a. Stand alone	
	b. Stand by	
5.05	Sharing of loads	
5.06	Rated power (Floating Mode)	
5.07	Maximum observed load	
5.08	Recommended breaker rating	
5.09	Battery Quantity/ Sizing (50%, 100%)	
5.10	Input peak current	
5.11	Rectifier Rated output current	
5.12	Limitation of rectifier current (After 10mn, 3mn, 1mn, 10s)	
5.13	Rectifier output voltage / Voltage variation	
	a. Floating Mode	
	b. Commissioning Mode	

	c. High rate mode	
5.14	Ripple Voltage with battery	
5.15	Residual ripple battery current	
5.16	Current harmonic rejection	
5.21	Automatic changeover floating/ commissioning	
5.22	Automatic high Rate operation	
5.23	Efficiency	
5.24	Power factor	
5.25	Execution	
6.00	RECTIFIER CONTROL	
6.01	Rectifier ON/OFF	
6.02	Rectifier input MCCB	
6.03	Change over floating/commissioning	
6.04	High Rate operation	
6.05	High Rate operation duration timer	
6.06	Battery MCCB	
6.07	DC output voltage adjustment	
6.08	DC current limit adjustment	
7.00	RECTIFIER MEASURE DISPLAY	
7.01	DC circuit voltage	
7.02	Battery charge & discharge current	
7.03	Rectifier output current	
7.04	AC ammeter & voltmeter with selector switches for rectifier inputs	
7.05	Battery Autonomy time remaining	
8.00	RECTIFIER MONITORING	
8.01	AC Input supply available	
8.02	Rectifier ON / OFF	
8.03	Operating Mode	
8.04	Manual / Automatic Operation	
8.05	Operation on Battery	
8.06	Commissioning/ High rate inhibition	
8.07	DC voltage High	
8.08	DC voltage low	
8.09	Imminent discharge battery	
9.00	RECTIFIER FAULT DISPLAY	
9.01	AC input phase under voltage/failure	Local/ Remote
9.02	Rectifier failure	Local/ Remote
9.03	DC over voltage	Local/ Remote
9.04	Charging failure/ Battery discharging	Local/ Remote
9.05	Battery disconnected	Local/ Remote
9.06	DC earth fault	Local/ Remote
9.07	Cubical fan failure	Local/ Remote
9.08	Rectifier over current	Local/ Remote
9.09	Battery over current	Local/ Remote
10.00	RECTIFIER CUBICLE	
10.01	Length/Depth/Height	
10.02	Weight	
10.03	Cooling Mode	
10.04	Anti Condenser heaters	Yes/No
10.05	Protection against external surges	Yes/No
10.06	Internal lights	Yes/No
11.00	INVERTER	

11.01	PWM technology	Yes/No
11.02	Inverter Quantity (50%, 100%,)	
11.03	Output Voltage window	
11.04	Operating conditions	
	a. Stand alone	Yes/No
	b. Stand by	
	c. Sharing of the load	Yes/No
11.05	Rated power	*with fan/without fan
11.06	Output voltage regulation	
	a. Steady state (%)	
	b. Transient 50, 100% load change(%)	
	c. Voltage recovery time	
11.07	Output voltage adjustment (%)	
11.08	Semi conductor sizing	
	a. Maximum temp. (125%,...)	
	b. Maximum current (125%,...)	
11.09	Inverter efficiency 4/4,3/4,2/4,1/4 load	
11.10	Overall UPS efficiency 4/4,3/4,2/4,1/4 load	
12.00	INVERTER CONTROL	
12.01	Inverter ON / OFF	Local/ Remote
12.02	AC output voltage adjustment	Local/ Remote
12.03	Synchronizing range adjustment	Local/ Remote
12.04	Load transfer initiating	Local/ Remote
12.05	Inverter output MCCB	Local/ Remote
13.00	INVERTER MEASURE DISPLAY	
13.01	Output inverter voltage	Yes/No
13.02	Output inverter current	Yes/No
13.03	Output inverter frequency	Yes/No
13.04	By pass input voltage	Yes/No
14.00	INVERTER MONITORING	
14.01	Supply available	Local/ Remote
14.02	Inverter ON	Local/ Remote
14.03	Load on inverter	Local/ Remote
14.04	Load on by pass	Local/ Remote
14.05	Alternative / by pass supply available	Local/ Remote
14.06	Inverter / by pass synchronization	Local/ Remote
14.07	Static switch by passed	Local/ Remote
15.00	INVERTER FAULT DISPLAY	
15.01	Inverter failure	Local/ Remote
15.02	Output voltage deviation	Local/ Remote
15.03	Inverter over current / Output over load	Local/ Remote
15.04	Synchronizing fault	Local/ Remote
15.05	Operation by pass transformer	Local/ Remote
15.06	Emergency supply fault	Local/ Remote
15.07	AC earth fault	Local/ Remote
15.08	Cooling fan failure	Local/ Remote
15.09	Cubicle inverter stack over temperature	Local/ Remote
16.00	INVERTER CUBICLE	
16.01	Length/Depth/Height	
16.02	Weight	
16.03	Cooling Mode	
16.04	Anti Condenser heaters	Yes/No
16.05	Internal lighting	Yes/No
17.00	RECTIFIER & INVERTER CUBICLE SIGNALIZATION	

17.01	Type (Lamps, LED, Display unit)	
17.02	Signalization of colors	
17.03	Lamp test	Yes
17.04	Fault reset push buttons	Yes
17.05	Auto diagnostic display	Yes
17.06	Type of remote signaling	
17.07	Serial link communication	Yes
17.08	Battery diagnostic facilities	
17.09	Connection to SCMS	
17.10	Communication facilities	
17.11	General mimic diagram	
17.12	Common fault signal	
18.00	RECTIFIER & INVERTER CUBICLE GENERAL CHARACTERISTICS	
18.01	Access	
18.02	Cable entry	Bottom
18.03	Overall length / Depth / Height	
18.04	Overall weigh	
18.05	Degree of protection (IP)	IP 42
18.06	Painting	
	a. Treatment	
	b. Color	
18.07	Global noise level at full load	
19.00	BY PASS	
19.01	Manual by pass switch	Yes/No
19.02	Max. allowable short ckt current	Yes/No
19.03	Protection against external surges	Yes/No
20.00	STATIC SWITCH	
20.01	Quantity	
20.02	Static, Electromechanical	
20.03	Change over inverter / transformer	
	a. Manual, Automatic	
	b. With, without breaking	
	c. Operating time	
21.00	BY PASS TRANSFORMER	
21.01	Manufacture / Type	
21.02	Quantity	
21.03	Rated Power	
21.04	Rated primary voltage	
21.05	Rated secondary voltage at no load	
21.06	Rated frequency	
21.07	No. of phases	
21.08	Connection symbol and vector group	
22.00	BATTERY	
22.01	Manufacturer	
22.02	Quantity / Sizing (50%, 100 %,....)	
22.03	Type	
	a. Vented, Gas recombination	
	b. Lead acid, Cadmium-Nickel	
22.04	Rated voltage	
22.05	Number of Cell	
22.06	Voltage per cell	
	a. Floating mode	
	b. Commissioning Mode	
	c. High rate mode	

	d. End of discharge at 20° C	
22.07	Capacity	
	a. Batter fully charged (Ah)	
	b. After hours of discharge (h/Ah)	
22.08	Autonomy	
22.09	Load current	
	a. Float mode	
	b. Commissioning mode	
	c. High rate mode	
22.10	Short circuit current at	
	a. Battery fully discharge	
	b. Battery end of discharge	
22.11	Charging time in commissioning mode up to	
	a. 80% capacity	
	b. 100% capacity	
22.12	Charging in high rate mode	
	a. 80% capacity	
	b. 100% capacity	
22.13	Battery hydrogen emission	
	a. High rate charge	
	b. Commissioning charge	
	c. Float charge	
22.14	Delivery condition	
	a. Cells delivery filled, dry	
	b. Electrolyte delivery dry	
22.15	Max. storage time before first charging battery	
22.16	Cable connecting battery to UPS unit	
22.17	Battery cable route length	
23.00	INSTALLATION	
23.01	Location	
	a. Battery room – well ventilated	Yes
	b. Battery discharge room	Yes/No
23.02	Mounting	
	a. Cable with fixing frame	Yes/No
	b. On steel stands with proper foot installation	Yes/No
	c. No. of tiers / steps (3 step maximum)	
23.03	Dimensions / Weight per cell	
	a. Length / Depth / Weight	
	b. Weight with electrolyte	
	c. Volume of electrolyte	
23.04	Overall length / Depth / Height	
	a. Cubicle	
	b. Steel stand	
23.05	Overall weight	
23.06	Required ventilation	
	a. Floating mode	
	b. Commissioning / High rate mode	
23.07	Heat dissipation	
	a. Floating mode	
	b. Commissioning / High rate mode	
24.00	ACCESSORIES	

24.01	Densi meter	Yes/No
24.02	Portable voltmeter	Yes/No
24.03	Portable earth fault detector	Yes/No
24.04	Automatic filling device	Yes/No
24.05	Thermometer	Yes/No
24.06	Nameplates	Yes/No
24.07	Connections	Yes/No
24.08	Isolating breaker	
	a. Type	
	b. Tripping Coil	Yes/No
	c. Enclosure	
24.09	Tool box	Yes/No
24.10	Fixing Accessories	Yes/No
24.11	Battery load discharge MCCB	Yes/No
24.12	Battery online monitoring system	
24.13	Communication to SCMS	

(SIGNATURE OF BIDDER)

ANNEXURE B-2
TECHNICAL DATASHEET FOR BATTERY STORAGE

1.00	GENERAL	
1.01	Name of the manufacture	
1.02	Type of Battery	
1.03	Designation	
1.04	Ambient temperature	
	a. Minimum	
	b. Maximum	
2.00	GENERAL	
2.01	Site conditions	
2.02	Maximum Temperature	
2.03	Design Maximum Ambient Temperature	
2.04	Design Minimum Ambient Temperature	
2.05	Relative Humidity	
	a. Minimum	
	b. Maximum	
2.06	Site Elevation Above MSL	
2.07	Plant Atmosphere	
2.08	Maximum Rainfall	
3.00	CONSTRUCTION DETAILS	
3.01	Type of positive plate	
3.02	Type of negative plate	
3.03	Type of container	
3.04	Type of Separator	
3.05	No. of vent plugs	
3.06	Spray Arrestors provided	Yes/No
3.07	Type of Battery racks provided	
3.08	Method of connection between cells	
4.00	TECHNICAL DETAILS	
4.01	Battery capacity for 10 hr rate	
	a. At 27° C	
	b. At maximum ambient temperature	
	c. At minimum ambient temperature	
4.02	Nominal voltage	
	a. Cell V	
	b. Battery V	
4.03	No. of cells	
4.04	Open circuit voltage / cell V	
4.05	End cell voltage / cell V	
4.06	Expected life of battery Yrs.	
4.07	Internal resistance of cell Ohms	
4.08	Ampere-hour efficiency %	
4.09	Watt-hour efficiency %	
4.10	Expected fault level at bus due to battery kVA	
4.11	Intermediate tapping	

4.12	Terminal connections	
4.13	Max. allowable voltage variation	
4.14	Total resistance of Battery Ohms	
5.00	CHARGING	
5.01	Mode of charging	Float/Boost/Trickle
5.02	Recommended starting & finishing charging rates	
5.03	Charging Voltage & Current	
	a. Float charging V / Amps	
	b. Boost charging V / Amps	
5.04	c. Trickle charging V / Amps	
	Charging period (Hrs.)	
	a. Initial charging	
5.05	b. Boost charging	
	c. Normal charging	
5.06	Volume & Specific gravity of electrolyte per cell (at 27°C)	
	a. For first filling	
	b. At the end of full charge	
5.07	c. At the end of discharge at hrs rate	
5.08	Volume of cell at the end of charge at the finishing rate	
5.09	Hydrogen Emission cm ³ /hr/ Cell at ___ °C	
5.10	Amount of air to be introduced cm ³ /hr /cell	
5.11	Equalizing charge	
	a. Voltage & Current V / Amps	
	b. Duration min.	
5.12	c. Interval between successive	*Hrs Equalizing charge
6.00	MISCELLANEOUS	
6.01	Cell dimension (LxWxH) mm	
6.02	Battery Bank dimensions (LxWxH) mm	
6.03	Weight / Cell kg	
	a. Dry	
6.04	b. Filled	
6.05	Weight of battery with stand kg	
6.06	Battery stand suitable for single tier / double tier	Single tier / double tier
6.07	Level indicator provide	Yes/No
6.08	Battery bank layout furnished with offer	Single tier / double tier
6.09	Recommended exhaust fans rating	kW X Nos X Qty
6.10	Size of battery room required (L x W) mm	
6.11	Ageing factor	
6.12	Charger to battery bank cable size sq.mm	
6.13	Design margin	
6.14	Factor for rise of battery capacity after charge discharge	
6.15	List of spares / accessories enclosed	Yes/No
6.16	Discharge characteristics at various rates (at 27°C ambient) enclosed	Yes/No

6.16	Typical voltage curves enclosed	Yes/No
6.17	Ageing characteristic enclosed	Yes/No
6.18	Copies of test report enclosed	Yes/No
6.19	Copies of Installation, Commissioning, Operation and maintenance manual	Yes/No
6.20	Type test certificate enclosed	Yes/No
6.21	Calculation for Battery sizing, cable sizing for battery enclosed	Yes/No
7.00	LIST OF MANDATORY SPARES	
7.01	Cell container with cover per set (5 Nos.)	Yes/No
7.02	Vent plugs per cell (5 Nos.)	Yes/No
7.03	Level indication (if applicable) (5 Nos.)	Yes/No
7.04	Inter cell connector per set (5 Nos.)	Yes/No
7.05	Nut, bolts and washer per set	Yes/No

SIGNATURE OF BIDDER)

SECTION-C

BID EVALUATION CRITERIA (BEC)/ BID REJECTION CRITERIA (BRC)

BID EVALUATION CRITERIA (BEC):

The bid shall conform to the specifications and terms and conditions given in the Bidding Documents. Bids shall be rejected in case material and services offered do not conform to the required parameters stipulated in the technical specifications. Notwithstanding the general conformity of the bid to the stipulated specifications, the following requirements will have to be particularly met by the Bidders without which the same will be considered as non-responsive and will not be considered for evaluation. All the documents related to BEC shall be submitted along with the Technical Bid.

ELIGIBILITY CRITERIA:

i) The bid should be from OEM (Original Equipment Manufacturer) of the Uninterrupted Power Supply (UPS). A copy of the Certificate of Incorporation shall be submitted with the bid.

ii) The bids from Authorized distributors/ Authorized Dealers/ Indian Companies/ Authorized Electrical Contractor of OEM of UPS set may also be considered, provided such bids are accompanied with valid authorization letter (Please refer Annexure C2) and relevant certificates from the Original Equipment Manufacturer who have authorized them to market their product, provided further that such an authority letter is valid at the time of bidding and shall remain valid till the scheduled execution period of the order. Offers without back-up authority in writing from manufacturer will not be considered. Required warranty cover of the manufacturers for the product will be provided by such bidder.

1.0 TECHNICAL EVALUATION CRITERIA:

1.1 EXPERIENCE:

The bidder must have experience in successfully executing/completing 'similar' supply as indicated below in Central Govt. Organization/PSU/State Govt. Organization/Semi-State Govt. Organization or any other Central/State Govt. Undertaking /Public Limited Company during the last 5(five) years to be reckoned from the original bid closing date:

a. Three similar completed supply orders costing not less than the amount of Rs. 104.00 Lakhs each.

Or

b. Two similar completed supply orders costing not less than the amount of Rs. 130.00 Lakhs each.

Or

c. One similar completed supply orders costing not less than the amount of Rs. 208.00 lakhs each.

Notes to BEC Clause 1.1 above:

a. Definition of 'Similar': Experience of Supply, installation and commissioning of one UPS System including battery bank of minimum rating 3 KVA or above of the same make as quoted against this tender.

b. For proof of requisite Experience (refer Clause No. 1.1), the following documents/ photocopy (self-attested/attested) must be submitted along with the bid:

Bidder must submit the following:

A. Contract document /order copy showing details of supply,

AND

B. Job Completion Certificate showing:

- (i) Gross value/quantity
- (ii) Description of items and order no./Contract no.
- (iii) Contract period/delivery period and date of completion

c. Only Letter of Intent (LOI)/Letter of Award (LOA)/Work Order(s) are not acceptable as evidence of experience.

d. Mere award of contract(s)/placement of order will not be counted towards experience. Successful completion of the awarded contract(s)/order(s) to the extent of volume/quantities & value, as stipulated under Clause Nos. 1.1 will only be treated as acceptable experience.

e. Following experience will also be taken into consideration:

(i) If the prospective bidder has executed contract/order in which supply defined above is also a component of the contract/order.

(ii) In case the start date of the requisite experience is beyond the prescribed 05(five) years reckoned from the original bid closing date but completion is within the prescribed 05 (five) years reckoned from the original bid closing date.

(iii) If the prospective bidder is executing similar work/order, which is still running and the executed order (or contract) value/quantity/period prior to original bid closing date is equal to or more than the minimum prescribed value in the BEC.

e.1 Proof of work experience against Para **e. (i) and (ii)** above, to satisfy a) work/supply defined above b) minimum prescribed value/quantity/period c) prescribed period of 05 years, to be submitted as below:

Bidder must submit the breakup of similar work/supply and its value/quantity executed within the prescribed period of 05 (five) years reckoned from the original bid closing date. The breakup must be certified by the end user or a certificate issued by a practicing Chartered/Cost Accountant Firm (with

Membership Number & Firm Registration Number).

e.2 Proof of work experience against Para e. (iii) above, to satisfy a) work defined above b) minimum prescribed value/quantity/period c) prescribed period of 05 years, to be submitted as below:

i. Bidder must submit the following:

- A. Breakup of similar work/supply
- B. Contract document/PO showing details of work
- C. LOA/LOI/Work order showing:

- (i) Awarded Gross value/quantity
- (ii) Description of item(s)
- (iii) Contract no./Work order no./Purchase order
- (iv) Contract period /delivery period

ii. Certificate of Payment (COP)/SES (Service Entry Sheet) up to the previous month of the original bid closing date of this tender issued by the company indicating the following:

- (i) Work order no./Contract no./PO No.
- (ii) Executed Gross value/quantity
- (iii) Period of Work done/supply made
- (iv) Description of works/supply

f. 'Similar Work/ supply' executed by a bidder for its own organization/subsidiary/Joint Venture cannot be considered as experience for the purpose of meeting BEC.

g. Bids submitted for part of the work/supply will be rejected.

h. Bid will be rejected if not accompanied with adequate documentary proof in support of Work experience as mentioned in Para 1.1.

1.2 The bidder must confirm the following in their bid:

To quote for full service as specified in 'Scope of Work' and submit filled up 'Price bid format/Schedule of Rates'.

2.0 FINANCIAL EVALUATION CRITERIA:

2.1 Annual Financial Turnover of the bidder during any of the preceding 03 (Three) financial/ accounting years from the original bid closing date should be at least Rs. 130.00 Lakhs.

2.2 Net worth of the bidder must be Positive for the preceding financial/ accounting year.

Note: The Net worth to be considered against Clause 2.2 above, should be read in conjunction with the definition of Net worth as mentioned in Section 2 (57) of the Companies Act, 2013.

Notes to BEC Clause 2.0 above:

a. For proof of Annual Turnover & Net worth, any one of the following documents/photocopies must be submitted along with the bid:

(i) Audited Balance Sheet along with Profit & Loss account.

OR

(ii) A certificate issued by a practicing Chartered/Cost Accountant (with Membership Number and Firm Registration Number), as per Annexure C3.

Note: Mention of UDIN (Unique Document Identification Number) is mandatory for all Certificates issued w.e.f. February 1, 2019 by Chartered Accountant in Practice.

b. Considering the time required for preparation of Financial Statements, if the last date of preceding financial/accounting year falls within the preceding six months/within the due date for furnishing of audit report as per Section 139(1) of IT Act, 1961 (read along with latest circulars/notifications issued by CBDT from time to time) reckoned from the original bid closing date and the Financial Statements of the preceding financial/accounting year are not available with the bidder, then the financial turnover of the previous three financial /accounting years excluding the preceding financial/accounting year will be considered. In such cases, the Net worth of the previous financial/accounting year excluding the preceding financial/accounting year will be considered. However, the bidder has to submit an undertaking in support of the same along with their technical bid as per Annexure C4.

c. In case the bidder is a Central Govt. Organization/PSU/State Govt. Organization/Semi-State Govt. Organization or any other Central/State Govt. Undertaking, where the auditor is appointed only after the approval of Comptroller and Auditor General of India and the Central Government, their certificates may be accepted even though FRN is not available. However, bidder to provide documentary evidence for the same.

2.3 In case the bidder is a Government Department, they are exempted from submission of document mentioned under para-a. and b. above.

2.4 Bid will be rejected if not accompanied with adequate documentary proof in support of Annual turnover and Net worth as mentioned in Para 2.1 & 2.2.

3.0 COMMERCIAL EVALUATION CRITERIA:

3.1 The bids are to be submitted in single stage under Two Bid System i.e., Techno-Commercial Bid/Technical Bid and Financial Bid/BOQ together. Only the Price Bid should contain the quoted price.

3.2 The price quoted by the successful bidder must be firm during the performance of the contract and not subject to variation on any account except as mentioned in the bid document. Any bid submitted with adjustable price quotation

3.3 Bid Documents/User Id & Password for E-Tender portal are not transferable.

3.4 Any bid received in the form of Physical document/E-mail will not be accepted.

3.5 Bids shall be typed or written in indelible ink. The bidder or his authorized representative shall sign the bid digitally, failing which the bid will be rejected.

3.6 Bids shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by bidder, in which case such corrections shall be initiated by the persons(s) signing (digitally) the bid. However, white fluid should not be used for making corrections. Any bid not meeting this requirement shall be rejected.

3.7 Any bid containing false statement will be rejected and action will be taken by Company as per Bid Document.

3.8 Bidders must quote clearly and strictly in accordance with the price schedule outlined in Price Bidding Format attached under “Financial Bid/BOQ” tab in the main bidding engine of E-Tender portal; otherwise the bid will be rejected. All other techno-commercial documents other than price details to be submitted in Unpriced Techno-Commercial Bid as per tender requirement under “Technical “Tab Page only.

3.9 Bidder must accept and comply with the following provisions as given in the Tender Document in toto, failing which offer will be rejected:

- (i) Firm price
- (ii) Period of validity of Bid
- (iii) Price Schedule
- (iv) Performance Bank Guarantee / Security deposit
- (v) Delivery / Completion Schedule
- (vi) Scope of work
- (vii) Guarantee of material / work
- (viii) Liquidated Damages clause
- (ix) Tax liabilities
- (x) Arbitration / Resolution of Dispute Clause

3.10 There should not be any indication of quoted price in the Un-priced Techno-Commercial Bid. A bid will be straightway rejected if this is given in the Un-priced Techno-Commercial Bid.

3.11 Bid received with validity of offer **less than the specified days** as incorporated in the Forwarding Letter will be rejected.

4.0 EVALUATION CRITERIA:

4.1 Price bid shall be opened in respect of only the techno-commercially acceptable bidders whose bids have been found to be substantially responsive. A substantially responsive bid is one that meets the terms and conditions of the Tender and/or the acceptance of which bid will not result in indeterminate liability on AGCL.

4.2 Bidders are required to quote for all the items as per Price Bid Format, otherwise the offer of the bidder will be straightway rejected.

4.3 If there is any discrepancy between the unit price and the total price, the unit

price will prevail and the total price shall be corrected. Similarly, if there is any discrepancy between words and figure, the amounts in words shall prevail and will be adopted for evaluation.

4.4 The quantities shown against each item in the “Price Bid Format” shall be considered for the purpose of Bid Evaluation. It is, however, to be clearly understood that the assumptions made in respect of the quantities for various operations are only for the purpose of evaluation of the bid and the Contractor will be paid on the basis of the actual number of days/parameter, as the case may be.

4.5 The bidders are advised not to offer any discount/rebate separately and to offer their prices in the Price Bid Format after considering discount/rebate, if any.

4.6 Conditional and unsolicited discount will not be considered in evaluation. However, if such bidder happens to be the lowest recommended bidder, unsolicited discount without any condition will be considered for computing the contract/order price.

4.7 In case of identical overall lowest offered rate by more than 1(one) bidder, the selection will be made by draw of lot between the parties offering the same overall lowest price.

4.8 Price Bids shall be evaluated on overall lowest cost to AGCL (L-1 offer) basis i.e. considering total quoted price for all services including applicable GST (CGST & SGST/UTGST or IGST) .

4.9 GOODS AND SERVICES TAX:

4.9.1 In view of GST Implementation from 1st July 2017, all taxes and duties including Excise Duty, CST/VAT, Service tax, Entry Tax and other indirect taxes and duties have been submerged in GST. Accordingly, reference of Excise Duty, Service Tax, VAT, Sales Tax, Entry Tax or any other form of indirect tax except of GST mentioned in the bidding document shall be ignored.

Bidders are required to submit copy of the GST Registration Certificate while submitting the bids wherever GST (CGST & SGST/UTGST or IGST) is applicable.

4.9.2 Bidder should also mention the Harmonised System of Nomenclature (HSN) and Service Accounting Codes (SAC) at the designated place in the Price Bid Format.

4.9.3 Where the AGCL is entitled to avail the input tax credit of GST:

AGCL will reimburse the GST to the Supplier of Goods / Services (Service Provider) at actual against submission of Invoices as per format specified in rules/ regulation of GST to enable AGCL to claim input tax credit of GST paid. In case of any variation in the executed quantities, the amount on which the GST is applicable shall be modified in same proportion. Returns and details required to be filled under GST laws & rules should be timely filed by supplier with requisite details.

4.9.4 The input tax credit of GST quoted shall be considered for evaluation of bids, as per evaluation criteria of tender document.

4.9.5 Where the AGCL is not entitled to avail/take the full input tax credit of GST:

AGCL will reimburse GST to the Supplier of Goods / Services (Service Provider) at actual against submission of Invoices as per format specified in rules/regulation of GST subject to the ceiling amount of GST as quoted by the bidder. In case of any variation in the executed quantities (If directed and/or certified by the In-Charge) the ceiling amount on which GST is applicable will be modified on pro-rata basis.

The bids will be evaluated based on total price including GST.

4.9.6 It is the responsibility of the bidder to quote the correct GST rate. The classification of goods/services as per GST (Goods & Service Tax) Act should be correctly done by the contractor to ensure that input tax credit on GST (Goods & Service Tax) is not lost to the AGCL on account of any error on the part of the contractor.

4.9.7 Further, it is the responsibility of the bidders to make all possible efforts to make their accounting/IT system GST compliant in order to ensure availability of Input Tax Credit (ITC) to AGCL.

4.9.8 GST liability, if any, on account of supply of free samples against any tender shall be to bidder's account.

4.9.9 In case the bidder is covered under Composition Scheme under GST laws, then bidder should quote the price inclusive of the GST (CGST & SGST/UTGST or IGST). Further, such bidder should mention "Cover under composition system" in column for GST (CGST & SGST/UTGST or IGST) of price schedule.

4.9.10 AGCL will prefer to deal with registered supplier of goods/services under GST. Therefore, bidders are requested to get themselves registered under GST, if not registered yet. However, in case any unregistered bidder is submitting their bid, their prices will be loaded with applicable GST while evaluation of bid. Where AGCL is entitled for input credit of GST, the same will be considered for evaluation of bid as per evaluation methodology of tender document.

Price Bid uploaded without giving any of the details of the taxes (Including rates and amounts) will be considered as inclusive of all taxes including GST.

4.9.11 When a bidder mentions taxes as extra without specifying the rates & amount, the offer will be loaded with maximum value towards taxes received against the tender for comparison purposes. If the bidder emerges as lowest bidder after such loading, in the event of order on that bidder, taxes mentioned by AGCL on the Purchase Order/Contracts will be binding on the bidder.

4.9.12 Procurement of Specific Goods: Earlier, there is no tax incidence in case of import of specified goods (i.e. the goods covered under List-34 of Customs

Notification no. 12/2012-Cus dated. 17.03.2012 as amended). Customs duty is not payable as per the policy. However, under GST regime, IGST Plus GST compensation cess (if applicable) would be leviable on such imports. Bidders should quote GST as inclusive considering IGST component for the imported Materials portion while quoting their prices on destination basis. However, GST rate to be specified in the price bid format.

4.9.13 As per Clause 171 of GST Act it is mandatory to pass on the benefit due to reduction in rate of tax or from input tax credit to the consumer by way of commensurate reduction in prices. The Supplier of Goods / Services may note the above and quote their prices accordingly.

4.9.14 In case the GST rating of bidder on the GST portal / Govt. official website is negative / black listed, then the bid may be rejected by AGCL. In case rating of Contractor is negative/black listed after award of work for supply of goods/services, then AGCL shall not be obligated or liable to pay or reimburse GST to such vendor/Contractor and shall also be entitled to deduct/recover such GST along with all penalties/interest, if any, incurred by AGCL.

4.9.15 Price Bids shall be evaluated on overall lowest cost to AGCL (L-1 offer) basis i.e. considering total quoted price for all goods/services including applicable GST (CGST & SGST/UTGST or IGST).

4.9.16 As GST is being taken into account for the purpose of evaluation of bids, then the rate of GST as prevailing on the date of bid closing will be taken into consideration for the propose of evaluation of bids. However, if there is any change in the rate of GST after the date of bid closing but prior to award of the contract due to which there is any change in the original ranking of bidders, then the bidder who has emerged lowest based on the rate of GST as prevailing on the date of bid closing would be considered for award of contract but subject to matching his prices with the bidder who has emerged lowest as a result of modification in GST. In case originally evaluated L-1 bidder fails to match the price (of the bidder who emerges L-1 due to change in GST rate) then the award of contract will go to the bidder who subsequently emerges L-1 due to change in GST rate.

4.10 Based on the evaluation of techno-commercially qualified bidders, the job will be awarded to L-1 bidder.

5.0 GENERAL:

5.1 In case bidder takes exception to any clause of bidding document not covered under BEC/BRC, then the Company has the discretion to load or reject the offer on account of such exception if the bidder does not withdraw/modify the deviation when/as advised by company. The loading so done by the company will be final and binding on the bidders. No deviation will however be accepted in the clauses covered under BEC/BRC.

5.2 To ascertain the substantial responsiveness of the bid the Company reserves the right to ask the bidder for clarification in respect of clauses covered under BEC/BRC also and such clarifications fulfilling the BEC/BRC clauses in toto must be received on or before the deadline given by the company, failing which the offer will be will be evaluated based on the submission. However, mere submission of such clarification shall not make the offer responsive, unless company is satisfied with the substantial responsiveness of the offer.

5.3 If any of the clauses in the BEC/BRC contradict with other clauses of bidding document elsewhere, the clauses in the BEC/BRC shall prevail.

5.4 Bidder(s) must note that requisite information(s)/financial values etc. as required in the BEC/BRC & Tender are clearly understandable from the supporting documents submitted by the Bidder(s); otherwise Bids shall be rejected.

5.5 AGCL will not be responsible for delay, loss or non-receipt of applications for participating in the bid sent by mail and will not entertain any correspondence in this regard.

5.6 The originals of such documents [furnished by bidder(s)] shall have to be produced by bidder(s) to AGCL as and when asked for.

6.0 PURCHASE PREFERENCE CLAUSE:

6.1 PURCHASE PREFERENCE TO MSE BIDDERS: Purchase Preference to Micro and Small Enterprises is applicable for this tender.

6.1.1 In case participating MSEs Quote price within price band of L1+15%, such MSE shall be considered for award of contract by bringing down their price to L1 price in a situation where L1 price is from someone other than a MSE.

6.1.2 In case of more than one such MSE qualifying for 15% purchase preference, the contract shall be awarded to lowest eligible MSE amongst the MSEs qualifying for 15% purchase preference.

6.1.3 Documentation required to be submitted by MSEs: Categorization and various criteria applicable to MSE bidders shall be guided by the Gazette Notification No. CG-DL-E-26062020-220191 dated 26.06.2020 and Amendment vide Gazette Notification no. CG-DL-E-16062021-227649 DATED 16th June 2021 issued by MINISTRY OF MICRO, SMALL AND MEDIUM ENTERPRISES. The existing enterprises registered under EM- Part-II or UAM till 30th June'2020 shall continue to be valid only up to the 31st December, 2021.

Bidder claiming the MSE status (MSE-General, MSE-SC/ST, MSE-Woman) against this tender has to submit the following documents along with the technical bid for availing the benefits applicable to MSEs.

- i. Udyam Registration Number with Udyam Registration Certificate
or
- ii. Proof of registration with District Industry Centers or Khadi and Village Industries Commission or Khadi and Village Industries Board or Coir Board or National Small Industries Corporation or Directorate of Handicrafts and Handloom or Udyog Aadhaar registration or registration with any other body specified by Ministry of MSME.

Note: In case bidding MSE is owned by Schedule Caste or Schedule Tribe or Woman entrepreneur, valid documentary evidence issued by the agency who has registered the bidder as MSE owned by SC/ST/Woman entrepreneur should also be enclosed.

7.0 COMPLIANCE OF THE COMPETITION ACT, 2002: The bidder shall strictly comply with the provisions of the Competition Act, 2002, more particularly, Section-3 of the Act. Any violation the provisions of the Act shall attract penal action under the Act.

Annexure C1

Format of undertaking by Bidders towards submission of authentic information/documents
(To be typed on the letter head of the bidder)

Ref. No _____

Date _____

To,
The Managing Director
Assam Gas Company Limited
Duliajan-786602

Sub: Undertaking of authenticity of information/documents submitted.

Ref: Your tender No. _____ Dated _____

Sir,

With reference to our quotation against your above-referred tender, we hereby undertake that no fraudulent information/documents have been submitted by us.

We take full responsibility for the submission of authentic information/documents against the above cited bid.

We also agree that, during any stage of the tender/contract agreement, in case any of the information/documents submitted by us are found to be false/forged/fraudulent, AGCL has right to reject our bid at any stage including forfeiture of our EMD and/or PBG and/or cancel the award of contract and/or carry out any other penal action on us, as deemed fit.

Yours faithfully,
For (type name of the firm here)

Signature of Authorized Person:

Signatory Name :

Designation :

Phone No.

Place :

Date :

(Affix Seal of the Organization here, if applicable)

Annexure C2

**Format of Authorization & Backup Warranty by Manufacturers to Sole
Selling Agent/Dealer/Distributor/Supply House/Channel Partner
(To be typed on the letter head of the Manufacturers)**

Ref. No _____

Date _____

To,
The Managing Director
Assam Gas Company Limited
Duliajan-786602

Sub: Authorization & Backup Warranty

Ref: Your tender No. _____ **Dated** _____

Sir,

We, M/s..... (Name & address of the Manufacturer) hereby authorize M/s..... (Name & address of the Bidder) to submit their Bid against Tender No..... floated by Assam Gas Company Limited(AGCL) for supply tendered goods, which will be manufactured by us. As we do not participate directly against such tendering process, we authorize M/s. (name of the Bidder) to participate as our only Sole Selling Agent/Dealer/Distributor/Supply House/Channel Partner (strike out whichever is not applicable) against the tender.

We hereby guarantee the supply through M/s..... (name of the Bidder) in the event of placement of purchase order by AGCL and shall provide all back-up supports as may be necessary including for the quality & workmanship of supplied materials.

This authorization and back-up warrantee/guaranty shall remain valid throughout the execution by M/s. (Name of the Bidder) including the defect liability period, in the event of an order by AGCL on them.

Yours faithfully,
For (Name of the manufacture)

Name & Signature of Authorized signatory:

Designation :

Phone No.

Place :

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Annexure C3

CERTIFICATE OF ANNUAL TURNOVER & NET WORTH

TO BE ISSUED BY PRACTISING CHARTERED ACCOUNTANTS' FIRM ON THEIR LETTER HEAD

TO WHOM IT MAY CONCERN

This is to certify that the following financial positions extracted from the audited financial statements of M/s (Name of the Bidder) for the last 03(Three) completed accounting years upto.....(as the case may be)are correct:

YEAR	TURN OVER In INR	NET WORTH In INR

Place:

Date:

Seal:

Membership Number:

Signature

Registration No.:

UDIN:

#####

Annexure C4

**(TO BE EXECUTED BY THE AUTHORIZED SIGNATORY OF THE BIDDER ON
THE OFFICIAL LETTER HEAD OF THE BIDDER)**

CERTIFICATE OF COMPLIANCE TO FINANCIAL CRITERIA

**Ref : Note 'b' under Clause 2.2 Financial Criteria of BEC/BRC of
Tender No. _____**

I _____ the authorized signatory(s) of
_____ (Company or Firm name with address)
do hereby solemnly affirm and declare/ undertake as under:

**The balance sheet/Financial Statements for the financial year _____
have actually not been audited as on the Original Bid Closing Date.**

Yours faithfully,

For (type name of the firm here)

Signature of Authorized Signatory

Name:

Designation:

Phone No.

Place:

Date:

(Affix Seal of the Organization here, if applicable)

Note: This certificate is to be issued only considering the time required for preparation of Financial Statements i.e. if the last date of preceding financial/accounting year falls within the preceding six months reckoned from the Original Bid Closing Date.

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SECTION-D
PURCHASE ORDER ACCEPTANCE

To,
The Managing Director
Assam Gas Company Limited
Duliajan-786602

Sub: Purchase Order No.-----

Dear Sir,

Having examined the Item Specification, Rates, Terms & Conditions, Notes of the Purchase Order, General Purchase Condition and the Terms of Reference including all attachments thereto, the receipt of which is hereby duly acknowledged, we the undersigned accept to perform/execute the above Purchase Order in conformity with the said conditions of Purchase Order. We undertake, to execute the purchase order as per the delivery schedule of the order.

We will also submit PBG (If applicable) as per the order terms for the execution

Dated this _____ day of _____ 20__.

Authorized Person's Signature: _____

Name: _____

Designation: _____

Seal of the Seller:

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SECTION-E

PERFORMANCE SECURITY FORM

TO,
Assam Gas Company Limited
Duliajan - 786 602
Assam, India

WHEREAS _____ (Name and address of supplier/Contractor) (hereinafter called "Contractor") had undertaken, in pursuance of PO/Contact No. _____ to execute (Name of Contract and Brief Description of the Work) _____ (hereinafter called "the Contract").

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee as security for compliance with Contractor's obligations in accordance with the Contract.

AND WHEREAS we (May incorporate the Bank Name) have agreed to give the Contractor such a Bank Guarantee; NOW THEREFORE we hereby affirm that we are Guarantors on behalf of the Contractor, up to a total of (Amount of Guarantee in figures) _____ (in words), such amount being payable in the types and proportions of currencies in which the Contract price is payable, and we undertake to pay you, upon your first written demand and without cavil or arguments, any sum or sums within the limits of guarantee sum as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein. We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or the work to be performed thereunder or of any of the Contract documents which may be made between you and the Contractor shall in any way cease us from any liability under this guarantee, and we hereby waive notice of such change, addition or modification.

This guarantee is valid until the _____ day of _____.

The details of the Issuing Bank and Controlling Bank are as under:

A. Issuing Bank:

BANK FAX NO:

BANK EMAIL ID:

BANK TELEPHONE NO: IFSC CODE OF THE BANK:

B. Controlling Office:

Address of the Controlling Office of the BG issuing Bank:

Name of the Contract Person at the Controlling Office with Mobile No. and

e-mail address:.

Notwithstanding anything contained herein:

- a) Our liability under this Bank Guarantee shall be restricted upto Rs.....
- b) This guarantee shall be valid till.....
- c) We are liable to pay the guarantee amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before..... (Date of Expiry of BG PLUS one year claim period).
- d) At the end of the claim period that is on or after (Date of expiry of the Bank Guarantee Plus Minimum of 1-year claim period shall be stipulated) all your rights under this Guarantee shall stand extinguished and we shall be discharged from all our liabilities under this Guarantee irrespective of receipt of original Bank Guarantee duly discharged, by Bank.

Name of the Contact Person at the Controlling Office with Mobile No. and e-mail address:

SIGNATURE AND SEAL OF THE GUARANTORS: _____

Designation: _____

Name of the Bank: _____

Address: _____

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SECTION - F

RESTRICTIONS ON PROCUREMENT FROM A BIDDER OF A COUNTRY WHICH SHARES A LAND BORDER WITH INDIA

1.0 Ministry of Finance of Govt. of India, Department of Expenditure, Public procurement Division vide office memorandum F. No. 6/18/2019-PPD dated 23rd July, 2020 (order-Public Procurement no.1) has proclaimed the insertion of Rule 144 (xi) in the General Financial Rules (GFRs), 2017 w.e.f. 23rd July, 2020 regarding restrictions on procurement from a bidder of a country which shares a land border with India on the grounds of defence of India on matters directly or indirectly related thereto including national security. Bidders are requested to take note of the following clauses and submit their offers accordingly wherever applicable.

Bidders must submit duly sealed & signed undertaking as per format provided vide, “Annexure F1” along with the technical bid.

I. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority.

Validity of Registration:

In respect of tenders, registration should be valid at the time of submission of bids and at the time of acceptance of bids. In respect of supply otherwise than by tender, registration should be valid at the time of placement of order. If the bidder was validly registered at the time of acceptance/placement of order, registration shall not be a relevant consideration during contract execution.

II. “Bidder” (including the term ‘tenderer’, ‘consultant’ or ‘service provider’ in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.

III. “Bidder from a country which shares a land border with India “for the purpose of this Order means: -

- (a) An entity incorporated, established or registered in such a country; or
- (b) A subsidiary of an entity incorporated, established or registered in such a country; or
- (c) An entity substantially controlled through entities incorporated, established or registered in such a country; or
- (d) An entity whose beneficial owner is situated in such a country; or
- (e) An Indian (or other) agent of such an entity; or
- (f) A natural person who is a citizen of such a country; or

(g) A consortium or joint venture where any member of the consortium or joint venture falls under any of the above.

IV. The beneficial owner for the purpose of (III) above will be as under:

1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.

Explanation –

a. “Controlling ownership interest” means ownership of or entitlement to more than twenty-five per cent of shares or capital or profits of the company;

b. “Control” shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;

2. In case of a partnership firm, the beneficial owner is the natural person (s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership.

3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;

4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;

5. In case of trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

6. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.

7. The successful bidder shall not be allowed to sub-contract any job related to the procurement (e.g. installation and commissioning, Annual Maintenance Contract etc.) to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.

Annexure F1

Format for Undertaking by Bidders towards compliance of office memorandum F. No. 6/18/2019-PPD dated 23rd July, 2020 (Public Procurement no. 1) issued by Department of Expenditure, Ministry of Finance, Govt. of India

(To be typed on the letter head of the bidder)

Ref. No _____ Date: _____

**Assam Gas Company Limited
DULIAJAN, ASSAM, INDIA**

Subject: Tender No. _____ Date: _____

Dear Sirs,

We have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; We certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. We hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered. [Where evidence of valid registration by the Competent Authority shall be attached.]”

We also agree that, during any stage of the tender/contract agreement, in case the above information/documents submitted by us are found to be false, AGCL has the right to immediately reject our bid/terminate contract at any stage and carry out further legal action on us in accordance with law.

Yours faithfully,
For (type name of the firm here)

Signature of Authorised Signatory

Name :

Designation :

Phone No.

Place :

Date :

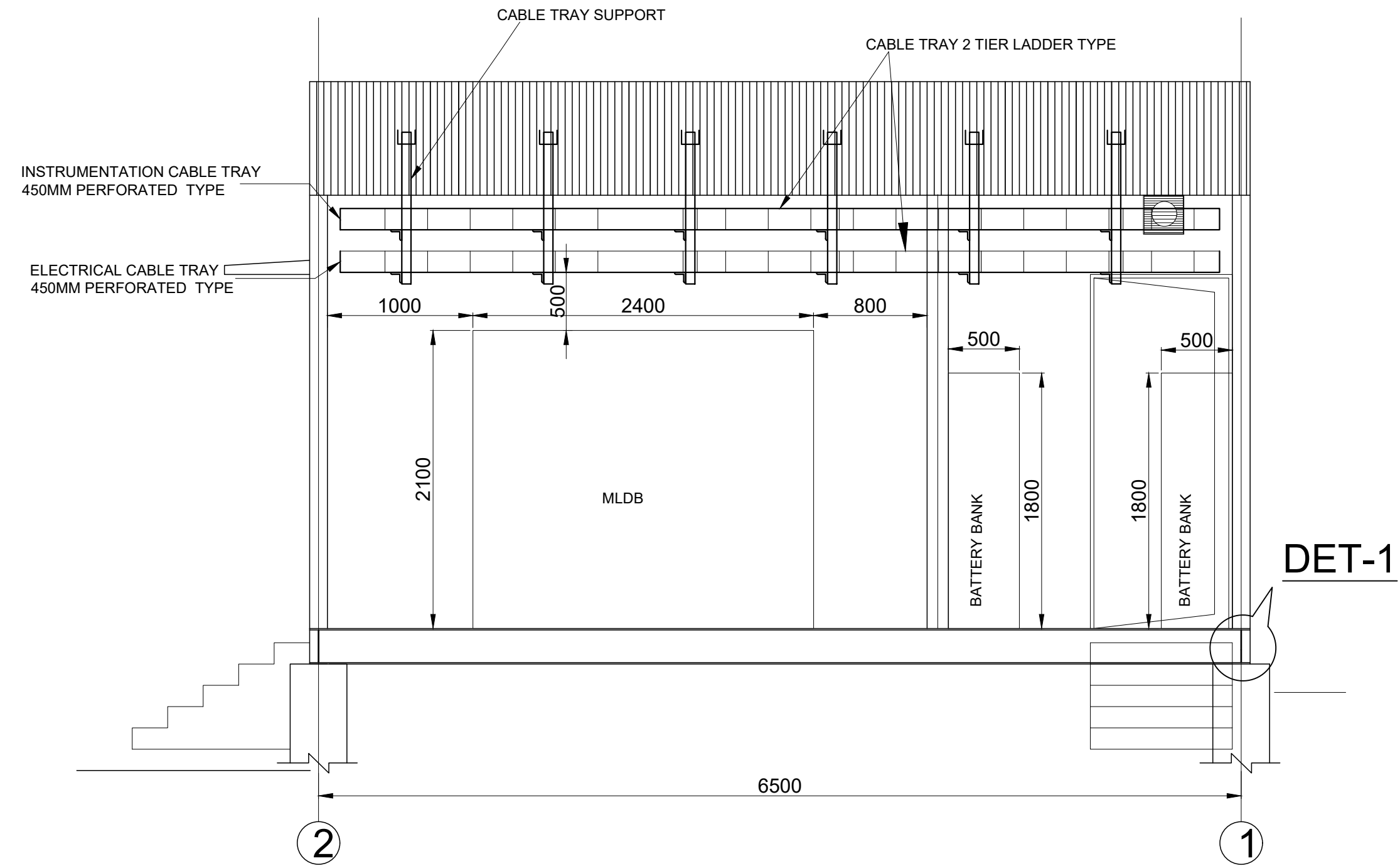
(Affix Seal of the Organization here, if applicable)

Note : This form should be returned along with offer duly signed.

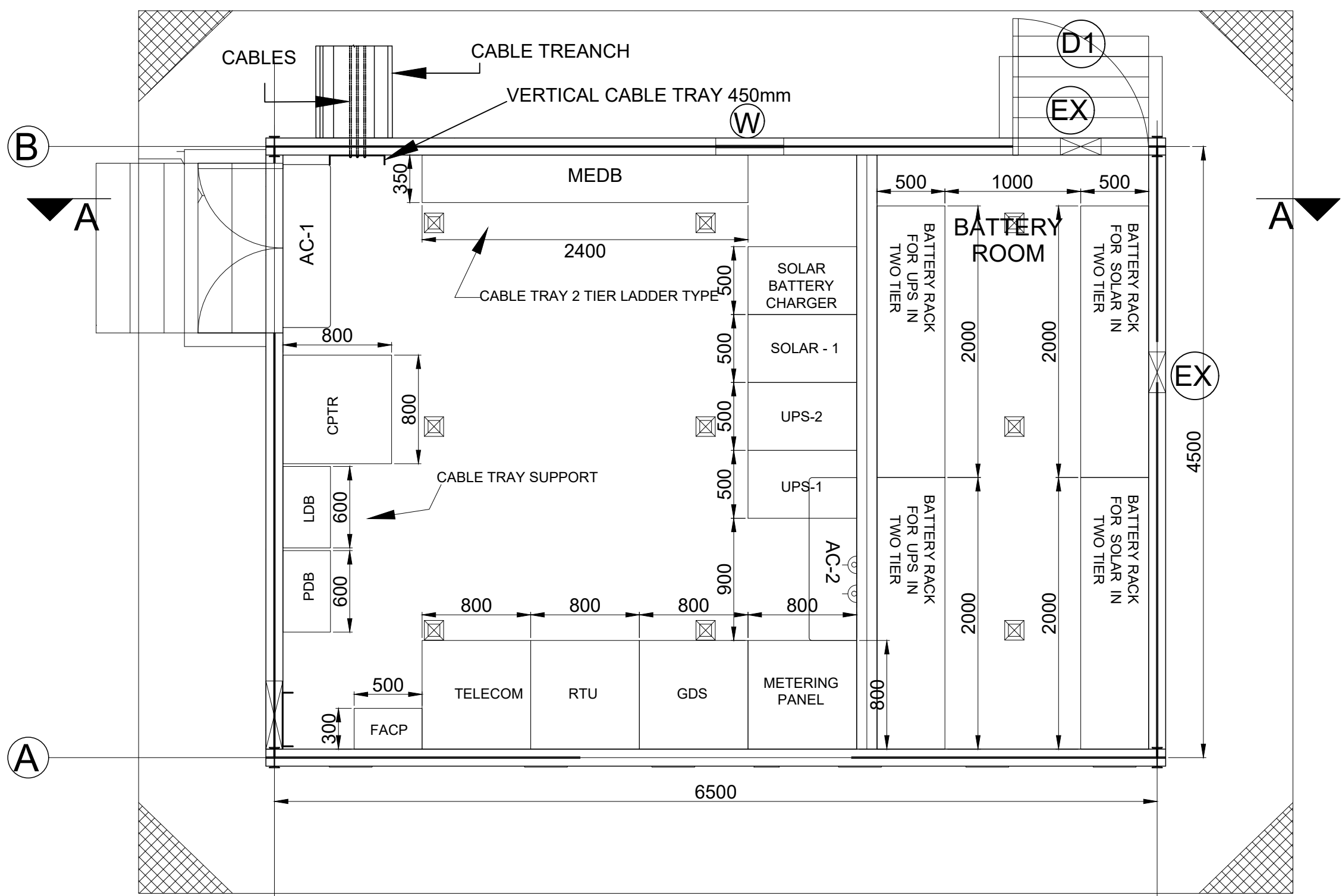
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EQUIPMENT LIST

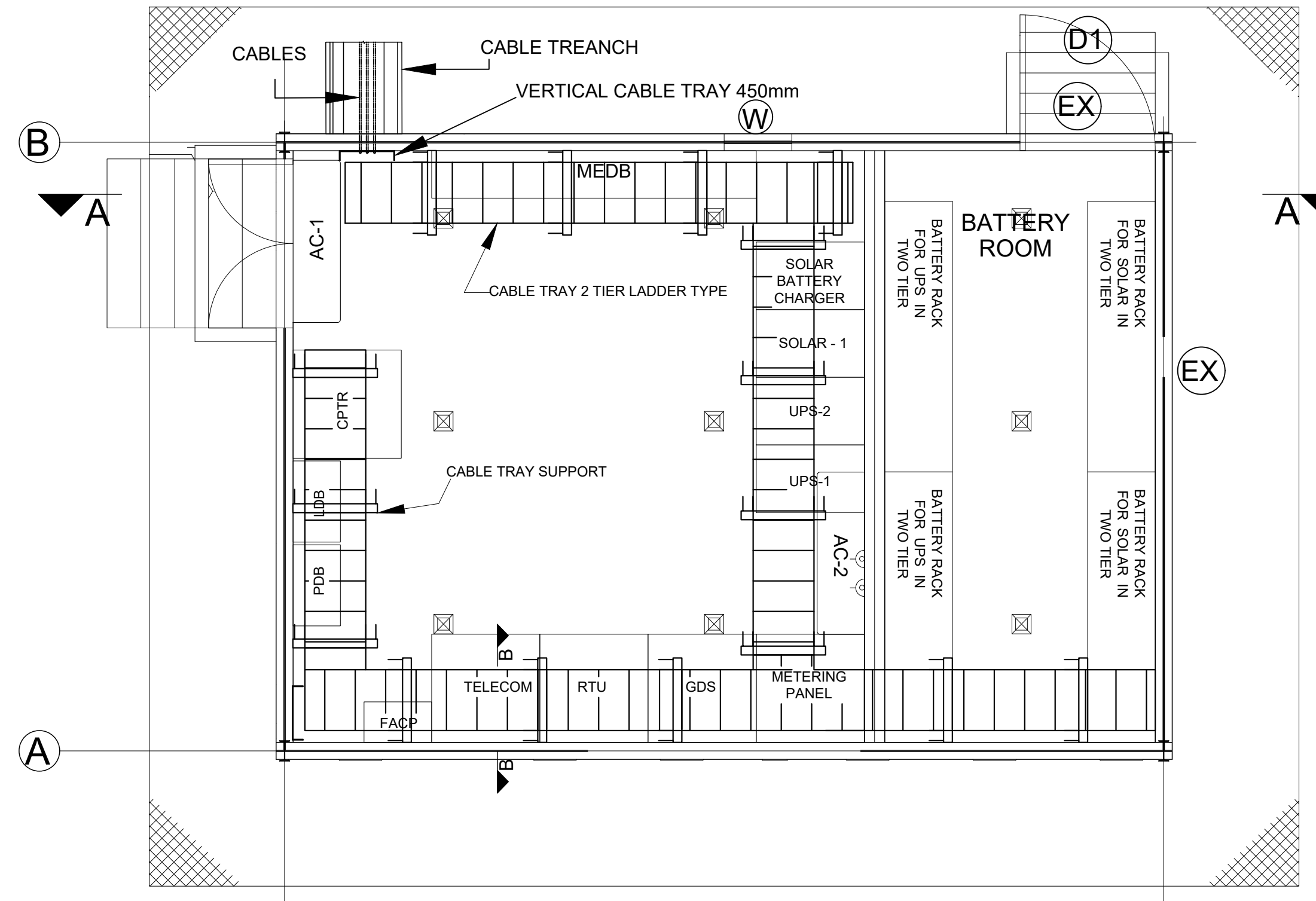
ITEM NO.	EQUIPMENT DESCRIPTION	MOUNTING TYPE	DIMENSION IN mm (L X W X H)
1	MEDB	FLOOR	2400 X 350 X 2200
2	PDB	WALL	600 X 350 X 1200
3	LDB	WALL	600 X 350 X 1200
4	UPS-1/2 OR SOLAR PANEL	FLOOR	800 X 800 X 1800
5	BATTERY BANK	FLOOR	2000 X 500 X 1800
6	AC-1/2	WALL	1200 X 350 X 2100
7	RTU	FLOOR	800 X 800 X 2100
8	TELECOM	FLOOR	800 X 800 X 2100
9	FAP.	WALL	600 X 300 X 600
10	GDS	WALL	800 X 800 X 600
11	METERING PANEL	FLOOR	800 X 800 X 2100
12	CPTR	FLOOR	800 X 800 X 1200



SECTION A - A



PLAN OF PORTA CABIN FOR EQUIPMENT ROOM



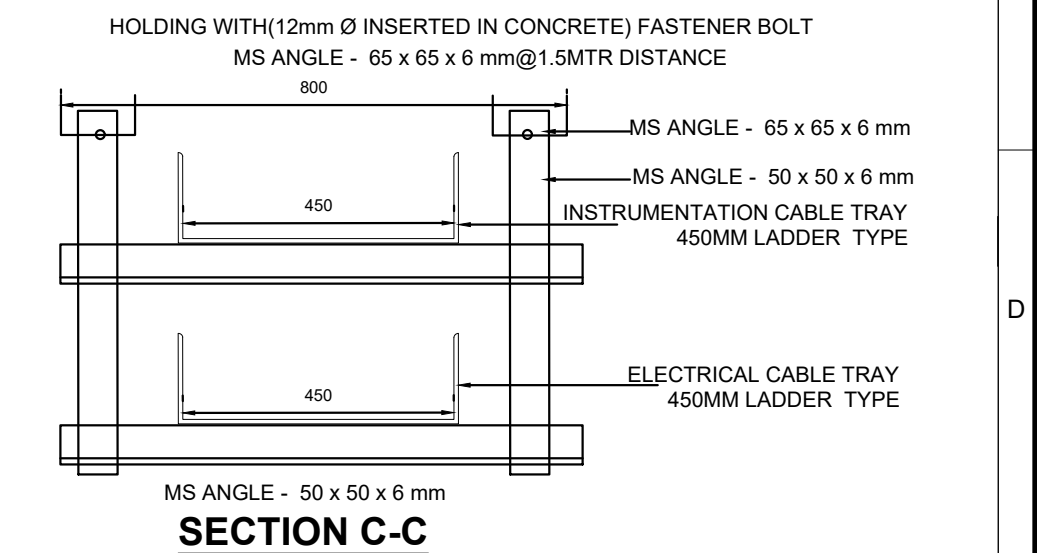
PLAN OF PORTA CABIN FOR EQUIPMENT ROOM

REFERENCE DRAWINGS	
DRAWING TITLE	DRAWING NUMBER

- NOTES:-**
- ALL DIMENSIONS ARE IN mm. & ALL LEVELS ARE IN m. UNLESS OTHERWISE SPECIFIED.
 - THE MARKED LOCATION OF EQUIPMENTS ARE INDICATIVE ONLY. THE EXACT LOCATION SHALL BE DECIDED AS PER ACTUAL SITE CONDITION & PANEL CUT OUT LOCATION.
 - CABLE ENTRY SHALL BE DONE AT TOP OF THE PANEL.
 - ALL ELECTRICAL EQUIPMENT DIMENSIONS ARE TENTATIVE ONLY FINAL DIMENSION SHALL BE UPDATED AS PER VENDOR DATA RECEIVED FROM FINAL VENDOR.
 - PORTA CABIN SHALL BE MOUNTED ON 1mtrs. ABOVE GROUND LEVEL.
 - VENDOR TO SUPPLY AND INSTALL FOLLOWING ITEMS:-
 - INDOOR LIGHTINGS.
 - FLAME PROOF EXHAUST FAN FOR BATTERY ROOM.
 - SWITCH AND SOCKETS.
 - 2 NOS SPLIT AIR CONDITIONER OF 2 TR EACH WITH 5KVS STABILIZER AND OUT DOOR UNIT.
 - CABLE TRAYS IN CEILING FOR ELECTRICAL AND INSTRUMENTATION PANELS AS PER ATTACHED LAYOUT WITH EARTHING STRIPS.

LEGENDS:-

	FLAME PROOF EXHAUST FAN FLP
	ELECTRICAL CABLE TRAY 450mm LADDER
	CABLE ENTRY MCT
	31W LED FLP LIGHTING FIXTURE INDUSTRIAL TYPE.
	16A SOCKET
	32A 2P MCB SOCKET
MEDB	Main Electrical Distribution Board
PDB	Power Distribution Boards
LDB	Lighting Distribution Board
UPS-1	Uninterruptible Power Supply
FACP	Fire Alarm Control Panel
RTU	Remote Terminal Unit
GDS	Gas Detection System
AC	AIR CONDITIONER



SECTION C-C

REV	DATE	DESCRIPTION	BY	CHKD	APPD
0	10-02-2023	ISSUE FOR IMPLEMENTATION	SC	NK	AD

OWNER: **ASSAM GAS COMPANY LTD** (A GOVT. OF ASSAM UNDERTAKING)
 ENGINEERING CONSULTANT: **PIPELINE ENGINEERING CONSULTANTS PVT. LTD.** (PLECO)

PROJECT: **NAMBOR-GOLAGHAT-NUMALIGARH PROJECT**

DWG. TITLE: **EQUIPMENT LAYOUT FOR PORTA CABIN**

SCALE	JOB NO.	DRAWING NUMBER	REV.
1:50	P106A	P106A-00-DWG-E004	0

1. Reference above, the electrical department was entrusted with the job of procurement and installation of the UPS and the battery bank as per the requirement of the stations of the NGN Project vide HR&A Order No OCI/ADM/96/XII/301 Dated 07.08.2023
2. Accordingly, department reviewed the tender document prepared by the consultant M/s VCS for the above project. In line with the same and in consultation with the project team engaged in the project, department has prepared an e-tender AGCL/PROJ/PMC-GHT/UPS/2023/137 Dated 16.10.2023 for supply, installation, testing and commissioning of brand -new uninterrupt power supply (UPS) system with battery bank and related accessories. However, the datasheet as mentioned in the consultant's tender document could not be traced on contacting VCS team and AGCL project team. The location of supply and installation of this UPS system are as follows
 1. Nambor Station : 2X5KVA online UPS with 2X50% Ni Cd Battery Bank
 2. Khoraghat Station : 2X5KVA online UPS with 2X50% Ni Cd Battery Bank
 3. Thoramukh Station : 2X5KVA online UPS with 2X50% Ni Cd Battery Bank
 4. Numaligarh Station : 2X5KVA online UPS with 2X50% Ni Cd Battery Bank
 5. Uriamghat Station : 2X5KVA online UPS with 2X50% Ni Cd Battery Bank
 6. Halmiramukh Station: 2X5KVA online UPS with 2X50% Ni Cd Battery Bank
 7. Sensua SV station : 2X3KVA online UPS with 2X50% Ni Cd Battery Bank
3. The budgetary estimate of the project is around Rupees Two Crores Fifty nine lakhs which is exclusive of G.S.T. The estimate has been prepared based on the submission of budgetary offers from two OEMs. (Refer page no 42&43)
4. The tender document has been vetted by Sri G.C Dev Choudhury considering Rupkhelia station also (Refer page 38 of this file). However on further correspondence with the project team, Rupkhelia Station is asked to be dropped from this tender as the said station is being upgraded to compressor station and UPS system can be integrated in the compressor package. (Refer page no 39 &40).

For your kind review and onward approval please

Note No 2

Paba
202-MCM(E)
17/10.10.2023


MD

1. Refer Note No 1.
2. An etender is to be floated for supply, installation, testing and commissioning of new UPS system with battery bank and related accessories at various locations of NGN Project.
3. Forwarded for your kind approval of the tender for floating please

Dam (SM)
21/10/23

3.

Approved.


21/10/23

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Handwritten text, possibly a date or reference number, partially obscured.

Handwritten text, possibly a list or notes, partially obscured.