

Notice Inviting Tender (NIT)

for

E-Tender for Supply, Installation, Testing & Commissioning of 2x40 KVA UPS at PFCCL's new office space at 7th floor ('A' Wing), 9th floor ('A' Wing) and 13th floor ('A' Wing) of Statesman House.

INVITATION TO BIDS

Ref. No.: 08/ORG/2016/UPS dated 14.10.2016

PFC CONSULTING LIMITED
(A wholly owned subsidiary of PFC Ltd.)
Corp. Office: First Floor Urjanidhi, 1, Barakhamba Lane,
Connaught Place, New Delhi-110001, India

PFC CONSULTING LIMITED
(A Wholly owned subsidiary of PFC Ltd.)
Corp. Office: First Floor, Urjanidhi, 1, Barakhamba Lane,
Connaught Place, New Delhi-110001, India

INVITATION TO BID

Ref.No.08/ORG/2016/UPS

Date: 14.10.2016

1. PFC Consulting Ltd. intends to procure 2x40 KVA UPS for their office at 7th Floor ('A' Wing), 9th Floor ('A' Wing) and 13th Floor ('A' Wing), Statesman House situated in Delhi.
2. Interested bidders may obtain further information from the Office of PFC Consulting Limited, First Floor, Urjanidhi, 1, Barakhamba Lane, Connaught Place, New Delhi-110001, India.
3. Bids shall be received upto **12:00 hrs. (IST) on 24.10.2016** on <https://www.tcil-india-electronictender.com>. **Technical & Commercial Bids** shall be opened on the same day at **14:00 hrs. (IST)**. The time table for bid process is as follows:

Place of Submission & Opening of Bids	At PFCCL office through e-procurement website (https://www.tcil-india-electronictender.com)
Issue of NIT & Date of commencement of NIT (from https://www.tcil-india-electronictender.com)	14.10.2016
Last Date & Time of downloading of NIT (https://www.tcil-india-electronictender.com)	24.10.2016 up to 10:00 hrs.
Last Date & Time for receipt of Bid (on https://www.tcil-india-electronictender.com)	24.10.2016 up to 12:00 hrs.
Date & Time of Opening of Technical & Commercial Bids through e-procurement Portal	24.10.2016 14:00 hrs.
Date & Time of Opening of Price Bids	To be intimated later on to the eligible bidders
Place of submission of Bids	https://www.tcil-india-electronictender.com
Place of Opening of Bids	At PFC Consulting Ltd. office through e-procurement
Address for communication	SVP (Unit-1) PFCCL, first floor , Urjanidhi 1, Barakhamba Lane ,New Delhi, Pin-110001 Tel: 011- 23456136 / 23456122 Fax :011-23456111 Email-vk_jain@pfcindia.com/ prakash_shivnani@pfcindia.com

Bidders are required to be registered on the e-procurement portal of TCIL i.e. <https://www.tcil-india-electronictender.com>

Official tender documents have to be procured /downloaded from <https://www.tcil-india-electronictender.com> after registration on the above website for participation in the tendering process before the closure date of sale of tender documents.

However, a free copy of tender documents is also available on above website as well as PFCCCL's website for **viewing purpose only**.

Note: Bidders are advised to start the registration process on the <https://www.tcil-india-electronictender.com> as early as possible as it may take a few days so as to avoid any delay in bid submission (upload) stage.

4. **Minimum Qualifying Requirements:**

The bidder should meet the following eligibility requirements:

- 4.1 Bidder shall be an Indian Company /firm engaged in Supply & Installation of UPS for last three years and having its sales & maintenance branch office in Delhi/NCR. (Certificate of incorporation to be submitted)
- 4.2 Bidder should be an Authorised dealer / Authorised Channel Partners of Original Equipment Manufacturer (OEM) and they are required to enclose the supporting document to this effect from OEM as performa at Appendix-III along with the proposal.
- 4.3 Bidder must have executed similar works in large Corporate/Govt./PSU (as specified in clause 4.1 above) during last Seven financial years among which bidder should meet any of the following criteria during last 07 Financial years till the bid due date
 - 4.3.1 At least one similar completed works costing not less than Rs.14.5 Lakhs;

or
 - 4.3.2 At least two similar completed works and each costing not less than Rs.9 Lakhs each;

or
 - 4.3.3 At least three similar completed works and each costing not less than Rs.7.5 Lakhs each.

Documents to this effect i.e. Completion Certificate and Copy of PO along with any other supporting document (like confirming supply of material and installation report or release of 90% payment by purchaser towards invoice etc.) must be uploaded with technical bid through e-procurement in support of the above;

"Similar work" means that the bidder has successfully executed supply, installation of UPS to corporate sector/PSU.

- 4.4 Bidder should have minimum average annual turnover of Rs. 5.5 Lakhs (Rupees Five Lakhs Fifty Thousands only) during last three financial years. In support of this, bidder shall submit copies of audited balance sheet, profit and loss account statement etc.
- 4.5 Bidder should have valid registration no. of sales tax/vat/ service tax, whichever is applicable;
- 4.6 Bidder should have valid pan no. (Copy of proof to be enclosed);
- 4.7 Owner reserves the right to carry out capability assessment of the Bidders and Owner's decision shall be final in this regard

The firm is required to submit (**upload**) the documentary evidence for meeting the above eligibility criteria as per the format enclosed at Annexure-IV (Schedule-1) in bidding document.

5. All Technical, Commercial Bids and Price Bids must be submitted at the <https://www.tcil-india-electronictender.com>. All bids must be accompanied by a bid guarantee(EMD) for an amount of Rs.1,00,000/- (Rupees One Lakh Only) as specified in the NIT and any bid not accompanied by the required bid guarantee (EMD) shall not be opened. **Scanned copies** of banker's cheque or demand draft on a/c of bid guarantee (EMD) need to be uploaded while submitting bids.
6. **Original copy of banker's cheque or demand draft on a/c of bid guarantee (EMD) and pass phrases should reach at the below mentioned address before the due date & time of opening of technical bid i.e. 24.10.2016 up to 12:00 hrs.**

SVP (Unit #1)
PFC Consulting Ltd. First Floor, "Urjanidhi",
1, Barakhamba Lane, Connaught Place, New Delhi-110001

The Bidders may also send banker's Cheque / demand draft by registered post so as to reach above address before bid closing date and time.

7. No further discussion /interface will be granted to bidders whose bids have been disqualified. PFC Consulting Limited reserves the right to accept or reject in part or full any or all the offers without assigning any reason whatsoever.

IMPORTANT INFORMATION

BEING E-TENDER, OFFICIAL COPY OF TENDER DOCUMENTS TO BE DOWNLOADED FROM <https://www.tcil-india-electronictender.com> AFTER ASSIGNING MARKETING AUTHORITY ON E-TENDER PORTAL BY BIDDER, FAILING IN WHICH BIDDER WILL NOT BE ABLE TO UPLOAD THEIR BID BY LAST DATE OF RECEIPT OF BID i.e. 24.10.2016 up to 12:00 hrs. ACCORDINGLY, BIDDERS ARE REQUESTED TO ENSURE TO DOWNLOAD OFFICIAL COPY AND NOT FREE COPY BY LAST DATE OF SALE OF TENDER DOCUMENTS AS EXPLAINED ABOVE.

PFC CONSULTING LIMITED
(A Wholly owned subsidiary of PFC Ltd.)
Corp. Office: First Floor, Urjanidhi, 1, Barakhamba Lane,
Connaught Place, New Delhi-110001, India

Ref. No.08/ORG/2016/UPS

Date: 14.10.2016

Subject: Supply, Installation, Testing & Commissioning of 2x40 KVA UPS at PFCCL's new office space at 7th floor ('A' Wing), 9th floor ('A' Wing) and 13th floor ('A' Wing) of Statesman House.

Dear Sir,

PFC Consulting Ltd., (A wholly owned subsidiary of PFC Ltd) invites e-bids for **"Supply, Installation, Testing & Commissioning of 2x40 KVA UPS at PFCCL's new office space at 7th floor ('A' Wing), 9th floor ('A' Wing) and 13th floor ('A' Wing) of Statesman House.**

The following documents are enclosed which need to be uploaded on e-tender portal duly signed in each and every page in token of acceptance along with **Earnest Money Deposit (EMD) of Rs. 1,00,000/- (Rupees One Lakh only).**

S. No.	Description Tender Documents	
1.	General Purchase Conditions (Section-GPC)	Annexure I
2.	Instruction to Bidders(Section-INB)	Annexure II
3.	Detailed Technical Specifications (Section-DTS) Minimum Specifications (UPS) Bill of Quantity	Annexure III Annexure III-A Annexure III-C
4.	Schedule-1(Qualifying Requirement Data) Schedule-2(Technical Deviations) Schedule-3(Commercial Deviations) Schedule-4 (Authorization Letter) Schedule-5 (Proposed Methodology, Work Plan, Resources and Manpower for Undertaking the Tasks as per Scope of Work and Deliverables)	Annexure IV
5.	Format for Quoting Rates(Price Schedule)	Annexure V
6.	Performa for Bank Guarantee for Bid Guarantee Performa for Bank Guarantee for Contract Performance Letter of Authority from OEM-Performa Letter of Acceptance Instructions for e-tendering	Appendix-I Appendix-II Appendix-III Appendix-IV Appendix-V

The bidders are required to submit EMD i.e. Rs. 1,00,000/- in the form of Demand Draft/ Banker's Cheque drawn in favour of "PFC Consulting Ltd." payable at New Delhi. Bidders are required to write their name and full address on the back of Bank Draft/Banker's Cheque submitted in support of tender document.

Or

The bidders may submit an irrevocable bank guarantee as per Clause 5 of GPC from any Nationalized Indian Bank or reputed commercial bank equivalent to Rs.1,00,000/- in favour of PFC Consulting Ltd., New Delhi in the format furnished in Appendix. The bid guarantee shall be valid for a period of three calendar months from the date of bid opening which shall be extended from time to time as desired by Purchaser.

In case no deviation is proposed in any of the clauses of technical or commercial enunciated in tender document, Schedule 2 & 3. Non-submission of Annexure IV, Schedule 2 & 3 will amount to no deviation from tender documents.

EMD duly sealed in separate envelopes and superscribed as "EMD respectively for **Supply, Installation, Testing & Commissioning of 2x40 KVA UPS at PFCCL's new office space at 7th floor ('A' Wing), 9th floor ('A' Wing) and 13th floor ('A' Wing) of Statesman House.**" - Due on 24.10.2016 at 12.00 Hrs." and addressed to:

SVP(Unit#1)
PFC Consulting Ltd., First Floor,
"Urjanidhi", 1 Barakhamba Lane,
Connaught Place, New Delhi – 110001

Thanking you,

Yours faithfully,
Sd/-
(V.K. Jain)
SVP (Unit #1)

SECTION GPC

GENERAL PURCHASE CONDITIONS

1.1 DEFINITION OF TERMS

- 1.2 The "Contract" means the agreement entered into between Owner and Contractor as per the Contract Agreement signed by the parties, including all attachments and appendices there to and all documents in corporate by reference therein.
- 1.3 "Owner" shall mean the PFC Consulting Limited., New Delhi, India (A wholly owned subsidiary of PFC Ltd.) having its Corporate office at First Floor, "Urjanidhi", 1, Barakhamba Lane, Connaught Place, New Delhi – 110001 and shall include their legal representatives, successors and assigns.
- 1.4 "Contractor" or "Manufacturer" shall mean the Bidder whose bid will be accepted by the Owner for the award of the Works and shall include such successful Bidder's legal representatives, successors and permitted assigns.
- 1.5 "Sub-Contractor" shall mean the person named in the Contract for any part of the Works or any person to whom any part of the Contract has been sublet by the Contractor with the consent in writing of the Engineer and will include the legal representatives, successors and permitted assigns of such person.
- 1.6 "Engineer" shall mean the officer appointed in writing by the Owner to act as Engineer from time to time for the purpose of the Contract by the Owner.
- 1.7 "Consulting Engineer"/"Consultant" shall mean any firm or person duly appointed as such from time to time by the Owner.
- 1.8 The terms "Equipment", "Stores", and "Materials" shall mean and include equipment, stores and materials to be provided by the Contract or under the Contract.
- 1.9 "Works" shall mean and include the furnishing of equipment/materials at site and if required, supervision of unloading, storage, handling at site, erection, testing & commissioning and putting in to satisfactory operation as defined in the Contract.
- 1.10 "Specifications" shall mean the Specifications and Bidding Document forming a part of the Contract and such other Schedules and drawings as may be mutually agreed upon.
- 1.11 "Site" shall mean and include the land and other places on, into or through which the Works and the related facilities are to be erected or installed and any adjacent land, paths, street or reservoir which may be allocated or used by the Owner or Contract or in the performance of the Contract.
- 1.12 The term "Contract Price" shall mean the lumpsum price quoted by the Contractor in his bid with additions and/or deletions as maybe agreed and incorporated in the Letter of Award, for the entire scope of the works.
- 1.13 "Manufacturer's Works" or "Contractor's Works" shall mean the place of Works used by the manufacturer, the Contractor, their collaborators/associates or Sub-Contractors for the performance of the Contract.
- 1.14 "Inspector" shall mean the Owner or any person nominated by the Owner from time to time, to inspect the equipment, stores or Works under the Contract and/or the duly authorized representative of the Owner.

- 1.15 "Notice of Award of the Contract"/ "Letter of Award"/"Telex of Award" shall mean the official Notice issued by the Owner notifying the Contractor that his bid has been accepted.
- 1.16 "Date of Contract" shall mean the date on which Notice of Award of Contract/Letter of award has been issued.
- 1.17 "Month" shall mean the calendar month "Day" or "Days" unless here in otherwise expressly Defined shall mean calendar day or days of 24 hours each.
- A "Week "shall mean continuous period of 7(seven) days.
- 1.18 "Writing" shall include any manuscript, typewritten or printed statement, under or over signature and/or seal as the case maybe.
- 1.19 When the words "Approved", "Subject to Approval", "Satisfactory", "Equal to", "Proper", "Requested", "As Directed", "Where Directed", "When Directed", "Determined by", "Accepted", "Permitted", or words and phrases of like importance are used the approval, judgment, Direction etc. is understood to be a function of the Owner/Engineer.
- 1.20 Test on completion shall mean such tests as prescribed in the Contract to be performed by the Contractor before the work is taken over by the Owner.
- 1.21 Startup' shall mean the time period required to bring the equipment covered under the Contract from an inactive condition, when construction is essentially completed, to the state ready for trial operation. The startup period shall include preliminary inspection and check out of equipment and supporting sub-system, initial operation of the complete equipment covered under the Contract to obtain necessary pre-trial operation data, perform calibration and corrective action, shutdown, inspection and adjustment prior to the trial operation period.
- 1.22 "Initial operation" shall mean the first integral operation of the complete equipment covered under the Contract with the sub-system and supporting equipment in service or available for service.
- 1.23 "Trial operation", "Reliability Test", "Trial Run", "Completion test", shall mean the extended period of time after the start up period. During this trial operation period the unit shall be operated over the full load range. The length of Trial Operation shall be as determined by the Engineer, unless otherwise specified elsewhere in the Contract.
- 1.24 "Performance and Guarantee Test" shall mean all operational checks and tests required to determine and demonstrate capacity, efficiency, and operating characteristics as specified in the Contract Documents.
- 1.25 The term "Final Acceptance" shall mean the Owner's written acceptance of the Works performed under the Contract, after successful commissioning/completion of Performance and Guarantee Tests, as specified in the accompanying Technical Specifications or otherwise agreed in the Contract.
- 1.26 "Commercial Operation" shall mean the condition of operation in which the complete equipment covered under the Contract is officially declared by the Owner to be available for continuous operation at different loads up to and including rated capacity. Such declaration by the Owner, however, shall not relieve or prejudice the Contractor of any of his obligations under the Contract.
- 1.27 "Warranty Period"/"Maintenance Period" shall mean the period during which the Contractor shall remain liable for repair or replacement of any defective part of the Works performed under the Contract.

1.28 “Latent Defects” shall mean such defects caused by faulty design, material or workmanship which cannot be detected during inspection, testing etc. based on the technology available for carrying out such tests. _

2.1 SUBMISSION OF BIDS

2.2 The entire process of bidding shall be through e-procurement/e-tendering. If require any brochures/specifications relating to items in such case their scan copy to be uploaded in technical bids.

3.0 SEALING AND MARKING OF BIDS

3.1 The envelope containing banker’s cheque /demand draft on a/c of EMD shall indicate the name and address of the Bidder to enable the envelope to be returned unopened incase it is declared “late” or “rejected”.

4.0 DEADLINE FOR SUBMISSION OF BIDS

4.1 Bids submitted by fax will not be accepted. No request from any Bidder to the Owner to collect the proposal from airlines, cargo agent’s etc. shall be entertained by the Owner.

4.2 Envelopes containing banker’s cheque/ demand draft on a/c of EMD must be received by the Owner at the address specified above, not later than the time & date mentioned in the Invitation to Bid.

4.3 The Owner may, at its discretion, extend this deadline for the submission of bids by amending the Invitation to Bid/NIT, in which case all rights and obligations of the Owner and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

5.0 EARNEST MONEY DEPOSIT (EMD)/ BID GUARANTEE

5.1 Each bid shall be accompanied by a Bid Guarantee amounting to Rs.1,00,000 /- (**Rupees One Lakh only**) in one of the form listed out here in below:

5.2 The bid guarantee shall be valid for a period of three calendar months from the date of bid opening which shall be extended from time to time as desired by Purchaser. The successful Bidder shall keep his bid guarantee valid till one month beyond the submission of Contract Performance Guarantee, if required.

5.3 The bid guarantee may be submitted in one of the following forms:

(a) A crossed bank draft in favour of PFC Consulting Ltd., New Delhi, payable at New Delhi from a Nationalized Bank or a reputed commercial bank of the Bidder’s country.

(b) An irrevocable bank guarantee from any Nationalized Indian Bank or reputed commercial bank of the Bidder’s country in favour of PFC Consulting Ltd., New Delhi in the proforma enclosed here with as APPENDIX–I.

5.4 Any bid, not accompanied by the bid guarantee is able to be rejected by the Owner as non-responsive.

5.4.1 Bid Guarantee of the unsuccessful bidder shall be returned after the acceptance of the Purchase Order by the successful bidder.

- 5.4.2 The bid guarantee of the successful bidder shall be returned after the said bidder submits the contract performance guarantee (10% of the contract price) in specified form and its acceptance, if required.
- 5.4.3 The Bid Guarantee may be forfeited without any notice or proof of damages etc.
- (a) If a Bidder withdraws its bid during the period of bid validity specified by the bidder on the Bid form.
- Or**
- (b) In the case of a successful Bidder if the Bidder fails:
- (i) To accept Letter of Award/Purchase Order incorporating the agreements reached during pre-award discussion unconditionally.
- 5.4.4 No interest will be payable by the owner on the above bid guarantee.

6.0 MODIFICATION AND WITHDRAWAL OF BIDS

- 6.1 No bid may be modified subsequent to the deadline for submission of bids.
- 6.2 No bid may be withdrawn in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Bid Form. Withdrawal/modification of a bid during this interval may result in the forfeiture of bid security.

7.0 INFORMATION REQUIRED WITH THE PROPOSAL

- 7.1 The following information shall be required with technical bid in the form of scanned copies, if required.
- 7.2 **The information about model, make and complete specifications of UPS shall be uploaded/provided by the Bidder in the form of separate sheets, drawing, catalogues, etc.**
- 7.3 Oral statements made by the Bidder at anytime regarding quality, quantity or arrangement of the equipment or any other matter will not be considered.
- 7.4 Standard catalogue pages and other documents of the Bidder may be used in the bid to provide additional information and data as deemed necessary by the Bidder.
- 7.5 In case the "Bid Proposal" information contradicts NIT requirements, the NIT requirements will govern, unless otherwise brought out clearly in the technical/commercial deviation schedules.

8.0 OPENING OF BIDS BY THE OWNER

- 8.1 The Bids shall be opened by the Owner on the date as specified in bid documents or in the case any extension has been given thereto, after the extended Bid submission date as notified on e-tender portal and PFC Consulting Ltd. website.
- 8.2 The Bidder's names, bid prices, modifications, bid withdrawals and the presence or absence of the requisite bid guarantee and such other details as the Owner, at its discretion may consider appropriate, will be announced at the opening.

8.3 No electronic recording devices will be permitted during bid opening.

9.0 CLARIFICATION OF BIDS

9.1 To assist in the examination, evaluation and comparison of bids the Owner may, at its discretion, ask the Bidder for clarification of its bid. The request for clarification and the response shall be in writing and no change in the price or substance of the bid shall be sought, offered or permitted.

10.0 PRELIMINARY EXAMINATION

10.1 The Owner will examine the bids to determine whether they are complete, whether any computational errors have been made, whether required sure ties have been furnished, whether the documents have been properly signed, and whether the bids are generally in order.

10.2 Arithmetical errors will be rectified on the following basis: If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and total price shall be corrected. If there is a discrepancy between words and figures, the amount in words will prevail. If the Bidder does not accept the correction of the errors as above, his Bid will be rejected and the amount of Bid Guarantee forfeited.

10.3 The Bidder should ensure that the prices furnished in various price schedules are consistent with each other. In the case of any inconsistency in the prices, furnished in the specified price schedules to be identified in Bid Form for this purpose, the Owner shall be entitled to consider the highest price for the purpose of evaluation and for the purpose of award of Contract use the lowest of the prices in these schedules.

10.4 Prior to the detailed evaluation, the Owner will determine the substantial responsiveness of each bid to the NIT. For the purpose of these Clauses, a substantially responsive bid is one which conforms to all the terms and conditions of the NIT without material deviations. A material deviation is one which affects in any way the prices, quality, quantity or delivery period or which limits in any way the responsibilities or liabilities of the Bidder or any right of the Owner as required in these NIT documents and specifications. The Owner's determination of a bid's responsiveness shall be based on the contents of the bid itself without recourse to extrinsic evidence.

10.5 A bid determined as not substantially responsive will be rejected by the Owner and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

11.0 PRICE

11.1 The Bidder shall quote Firm prices valid till the complete execution of the order.

11.2 The Bidder shall quote on FOR Destination basis inclusive of packing, forwarding, freight, insurance charges, taxes & duties, installation charges, testing and commissioning charges etc, if any.

11.3 The Bidder shall quote item wise unit and lot prices for all the material and services (if any).

12.0 TAXES AND DUTIES

12.1 All the Bidders are requested to familiarize themselves with the laws, rules and regulations prevailing in India and consider the same while developing and submitting their Proposal.

- 12.2 All Customs duties, Excise Duties, Sales Tax and other levies payable by the bidder on goods, equipments, components, Sub-assemblies, raw materials & any other items used for their consumption or dispatched directly to owner by the contractor or their sub-suppliers shall be included in the bid price & any such taxes, duties, levies additionally payable will be to bidder's account & no separate claim on this account will be entertained by the owner.
- 12.3 The Contractor shall be liable and pay all non-Indian taxes, duties, levies, lawfully assessed against the Owner or the Contractor in pursuance of the Contract. Tax liability, if any, on Contractor's personal income & property shall be borne by the Contractor and shall be the responsibility of the Contractor as per Tax Laws of India.
- 12.4 PFC Consulting Ltd shall be entitled to deduct applicable tax (if any) at source as per Indian Laws from all payments due to the Contractor under the contract.
- 12.5 As regards the Indian Income Tax, surcharges on Income Tax and any other Corporate tax, PFC Consulting Ltd. shall not bear any tax liability, whatsoever, irrespective of the mode of contracting. The Contractor shall be liable and responsible for payment of all such taxes, if attracted under the provisions of the law. In this connection, attention of Contractors is invited to the provisions of Indian Income Tax Act and the circulars issued by the Central Board of Direct Taxes, Government of India.
- 12.6 If any rates of taxes/duties/levies (here in after called "Tax") are increased or decreased, a new Tax is introduced, an existing Tax is abolished or any change in interpretation or application of any Tax occurs in the course of the performance of Contract, which was or will be assessed on the Contract or in connection with performance of the Contract, an equitable adjustment of the Contract Price shall be made to fully take into accountancy such change by addition to the Contract Price or deduction there from, as the case may be. However, these adjustments would be restricted to direct transactions between the Owner and the Contractor and not on procurement of components/products/services etc. by the Contractor and shall also not be applicable on the bought out items dispatched directly from sub vendor's works to site.
- 13.0 INSURANCE**
- 13.1 The seller at his cost shall arrange, secure and maintain all insurance as may be pertinent and obligatory in terms of law to protect his interest and interests of the Owner against all perils. The responsibility to maintain adequate insurance coverage at all times till the equipment/materials "Taken Over" by the Owner shall be of Seller alone. The insurance covers to be taken by the seller shall be in the name of Owner. The seller shall however be authorized to deal directly with the insurance company.
- 13.2 Any loss or damage to the equipment / material during handling, transportation till sixty (60) days after the equipment/material under the contract reach Purchaser's warehouse shall be to the account of seller. The insurance policy to be taken by seller should be on warehouse to warehouse basis valid for a period of sixty days beyond the receipt of material by the Purchaser's consignee as stipulated in the Purchase Order. The seller shall be responsible for preference of all claims and make good for the damages or loss by way repairs and/or replacement of the material damaged or lost. The transfer of title shall not in any way relieve the seller of the above responsibilities during the period of Contract.
- 13.3 The insurance required to be taken by seller shall cover all risks including war, strike, riots and civil commotion etc. The scope of such insurance shall be adequate to cover the replacement/re-installment cost of the materials delivered at site. Notwithstanding the extent of insurance cover the amount of claim available from the underwriters and the time at which claim is available from the under underwriters, the seller shall be liable to make good the full availability as per Owner's requirements.

14.0 BID CURRENCIES

14.1 Prices shall be quoted in Indian Rupees only.

15.0 PERIOD OF VALIDITY OF BIDS

15.1 Bids shall remain valid and open for acceptance for a period of 4 months after the dates for Bid opening.

16.0 BID OPENING–E-Procurement

16.1 Those bids whose bid guarantee and tender cost fee is not submitted before the due date and time shall not be opened. The Purchaser will examine all other Bids to determine whether they are complete, whether the requisite Bid Guarantees have been furnished, whether the documents have been properly uploaded, and whether the Bids are generally in order.

17.0 PROCESS TO BE CONFIDENTIAL

17.1 Any effort by a bidder to influence the Purchaser in the process of examination, clarification, evaluation and comparison of Bids, and in decisions concerning the award of Contract, may result in the rejection of his Bid.

18.0 CORRECTION OF ERRORS

18.1 Bids determined to be sub-sequentially responsive will be checked by the Purchaser for any arithmetic errors in computation and summation, Errors will be corrected by the Purchaser as follows:

- a) Where there is discrepancy between amounts in figures and in words, the amount in words will govern.
- b) Where there is a discrepancy between the unit rate and the total amount derived from the multiplication of the unit rate and the quantity, the unit rate as quoted will govern, unless in the opinion of the Purchaser there is an obviously gross misplacement of the decimal point in the unit rate, in which event the total amount as quoted will govern and the unit rate will be corrected.

18.2 The amount stated in the Bid Form will be adjusted by the Purchaser in accordance with the above procedure for the correction of errors and shall be considered as binding upon the bidder. If the bidder does not accept the corrected amount of Bid, his Bid will be rejected and the Bid Guarantee forfeited.

19.0 TIME SCHEDULE

19.1 The basic consideration and the essence of the Contract shall be the strict adherence to the time schedule specified in the bidding documents and incorporated in the Contract for supplies and services.

20.0 EVALUATION AND COMPARISON OF BIDS

20.1 The Purchaser will evaluate and compare the Bids previously determined to be substantially responsive to the requirements of the e-bidding documents, pursuant to Clause 10.0 above.

20.2 In evaluating Bids, the Employer will determine for each Bid the evaluated Bid price by adjusting the Bid price as follows:

- a) Making any corrections for errors pursuant to Clause 18.0

- b) Excluding provisional sums
- c) Making an appropriate adjustment for any other acceptable quantifiable deviations subject to responsiveness test at Clause 10.2.

20.3 The purchaser reserves the right to accept or reject any variation, deviations or alternative offered. Variations, deviations, alternative offers and other factors which are in excess of the requirements of the bidding documents or otherwise result in the accrual of unsolicited benefits to the Purchaser shall not be taken into account in Bid evaluation.

20.4 Sales tax and other levies legally payable on the transaction between the Purchaser, the bidder & sub-supplier shall be taken into account for Bid evaluation.

21.0 AWARD CRITERIA

21.1 The Purchaser will award the Contract to the bidder whose Bid has been determined to be substantially responsive to the bidding documents and has been determined as the lowest evaluated bid pursuant to Clause 20 above based on outcome of E-Tender, provided further that the bidder has the capability and resources to carry out the Contract effectively .

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

22.1 The Purchaser reserves the right to accept or reject any e-Bid and to annul the e-bidding process and reject all e-Bids at any time prior to award of Contract, without here by incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidders or bidders of the grounds for the Purchaser's action.

23.0 NOTIFICATION OF AWARD

23.1 Prior to the expiry of the period of Bid validity prescribed by the Purchaser, the Purchaser will notify the successful bidder by Email-Communication, confirmed in writing by registered letter, that his Bid has been accepted. This letter (here in after and in the Conditions of Contract called "Notification of Award"/ "Letter of Award ") shall name the sum which the Purchaser will pay to the Contractor in consideration of the execution, completion and maintenance of the Works by the Contractor as prescribed by the Contract (hereinafter and in the Conditions of Contract called the " Contract Price "). Within 5 days of receipt of the "Notification of Award"/ "Letter of Award" the successful bidder shall sign and return a copy of the same to the Purchaser as acknowledgement of receipt of the same.

23.2 The Document will prevail as the Master valid Documents and no further contract will be signed.

24.0 DELIVERY/SHIPMENT TERMS

24.1 All the equipment/materials shall be dispatched to destination on FOR destination basis within the delivery period as stipulated in the DTS/Purchase Order/LOA.

25.0 SECURITY DEPOSIT

- 25.1 In case of bidders who had submitted an unconditional and irrevocable bank guarantee in support of EMD, the awardee is required to furnish DD amounting to Rs.1,00,000 /- on a/c of Security Deposit along with acceptance of the contract within 10 days from the date of receipt of Work Order.
- 25.2 The Bank Guarantee shall be issued from (a) a Public Sector Bank or (b) a Scheduled Indian Bank.
- 25.3 Failure of the successful bidder to comply with the requirements of Clause 23.1 shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Guarantee, in which case the Purchaser may make the award to the next lowest evaluated bidder or call for new Bids.

26.0 LOCAL CONDITIONS

- 26.1 It will be imperative on each bidder to fully inform himself of all local conditions and factors which may have any effect on the performance of the Contract covered under these specifications and documents.

27.0 PAYMENT TERMS

- 27.1 90% post successful installation/implementation/Configuration of UPS as specified in the scope of work.
- 27.2 10% post go live Two (02) Month warranty period.

28.0 INSPECTION-CHECKING - TESTING

All materials/equipment manufactured by the supplier himself and/or by his sub-vendor against the purchase order shall be subject to inspection, check and/or test by the purchaser or his authorized representative at all stages and places, before, during and after his manufacturing.

Inspection by the Purchaser and/or his authorized representative or failure by the Purchaser and/or his authorized representative to inspect the material/equipment shall not relieve the supplier of any responsibility or liability.

29.0 ACCESS TO SUPPLIERS PREMISES

The Owner and/or his authorized representative shall be provided access to Vendor's and or his sub-Vendors premises, at any time during the pendency of the order for expediting, inspection, checking etc. of the progress of the work.

30.0 REMOVAL OF REJECTED GOODS AND REPLACEMENT

If upon deliver, whether inspected and approved earlier or otherwise the material/equipment is not in conformity with the specifications the same shall be rejected by the Purchaser or his duly authorized representative and notification to this effect will be issued to the Vendor normally within 30 days from the date of receipt of the material at the work/site/office.

The Supplier shall arrange removal of the rejected items within 15 days of the notice of rejection failing which the owner shall be at liberty to dispose off such rejected items in any manner as he may think fit. All expenses incurred by the Owner indisposing off the rejected items including money paid to the Supplier shall be recoverable from the Supplier.

31.0 SOURCE OF SUPPLY

The Vendor will ensure that the indigenous capacity is utilized to the fullest extent possible in execution of this order. Where imports are unavoidable, all such items shall be imported by the Vendor in good time against his own import license without affecting the contractual delivery date/delivery schedule.

32.0 PACKING AND MARKING

32.1 All goods shall be securely packed in cases, bundles, crates etc. suitable for rail /road / sea/air transport. All exposed services/connections/protrusions shall be properly protected.

32.2 All exposed parts shall be packaged with due care and the packages should bear the words "WITHCARE". The packing of the goods to be transported by rail/road/sea shall be as per the conditions laid down by the appropriate authorities and the Vendor shall obtain clean railway/goods receipt/ Bill of lading/Airway Bill in favour of the consignee without any qualifying remarks. All packages and unpackaged materials shall be marked on at least two places indicating the name of the Purchaser, Consignee ,Purchase Order number, Gross and net weights and dimension with in delible paint in English, in case of bundles, metallic plates marked with the above details shall be tagged to such bundles.

32.3 All goods should be dispatched as per the relevant terms of the Purchase Order. In case any other mode of transport has to be resorted to other than that mentioned in the Purchaser Order, the same shall be done only after obtaining prior approval in writing from the Purchaser. All movements, sanctions, loading permission etc. from the Railway Authority shall be obtained by the Vendor.

32.4 The Vendor shall communicate the relevant dispatch particulars immediately on dispatch by FAX/Telex/Telegrams to the consignee as specified in the Purchase Order. The vendor shall also forward original and copies of dispatch documents to the concerned authorities as required in the Purchase Order within two days from the date of dispatch failing which the vendor shall be responsible for any delay in payments for that consignment for want of documents and consequent demurrage, and wharf age and detention charges etc.

33.0 WARRANTY

As explained in detail vides Clause 11.0 of Detailed Technical Specifications (Annexure-III).

34.0 LIQUIDATED DAMAGES FOR DELAY IN COMPLETION

34.1 In case of any delay in execution of the order beyond stipulated date of delivery work schedule, including any extension permitted in writing, the Owner reserves the right to recover from the vendor a sum equivalent to ½ (half percent) of the value of delayed material/equipment or unperformed services for each week of the delay and part there of subject to a maximum of 10% of the total value of the order.

34.2 Alternatively, the Purchaser reserves the right to purchase the materials/equipment from elsewhere at the risk and cost of the vendor and recover all such extra cost incurred by the purchaser in procuring the material by the above procedure.

34.3 Alternatively, the Purchaser may cancel the order completely without prejudice to his right under the alternatives mentioned above.

35.0 DEMURRAGE, WHARFAGE ETC.

Any demurrage, wharf age or other expenses incurred after the consignment reaches the destination (railway go down or port or airport of CWC warehouse) due to delayed

Negotiations of dispatch documents or for any reason attributable to the seller shall be to the Account of the seller/settler's Indian Agent.

36.0 FORCE MAJEURE

36.1 Definition of Force Majeure

Force Majeure means any circumstances beyond the control of the parties, including but not limited to:

- a) War and other hostilities, (whether war be declared or not), invasion, act of foreign enemies, mobilization, requisition or embargo;
- b) Ionizing radiation or contamination by radioactivity from any nuclear fuel or from any nuclear waste from the combustion of nuclear fuel, radioactive toxic explosives, or other hazardous properties of any explosive nuclear assembly or nuclear components thereof.
- c) rebellion, revolution, insurrection, military or usurped power and civil war;
- d) riot, commotion or disorder, except where solely restricted to employees of the Contractor.

37.0 SPECIFICATIONS, DRAWINGS & DATA

All drawings, data & documentation in respect of the ordered Items are an integral part of the Purchase Order. The Vendor will furnish all such drawings, data and documentation to the Purchaser. The schedule for submission of these documents by the vendor and the required no. of the copies shall be specified by the Purchaser. The Vendor shall ensure strict compliance with the schedule. The data sheet at Annexure-III C for offered model of UPS must be filled and uploaded by the bidder.

38.0 ADDITIONS / ALTERATIONS/ MODIFICATIONS

The Owner reserves the right to make the additions/aerations/modifications to the quantity of the items in the Purchase Order to the extent of $\pm 25\%$ of the value of the Purchase Order. Such an option shall be exercised by the Owner before completion of supplies under purchase order. The vendor shall supply such quantities also, at the same rate as originally agreed to and incorporated in the Purchase Order. If, however the additional work is at variance in design, size and specifications & is not already covered by the Purchase Order of the amendments there in, the rates for such additional work shall be negotiated & mutually agreed upon.

39.0 SUB-LETTING

The Vendor shall not sub-let, transfer or assign any part of this order without the prior written consent of the Purchaser. Copies of sub-contract order shall be forwarded to the Purchaser.

40.0 INFORMATION PROVIDED BY THE PURCHASER

All drawings data & documentation that are given to the Vendor or by the Purchaser for the execution of the order shall be the property of the Purchaser. The Vendor shall not make use of any of the above documents for any other purpose at any time except for the purpose of executing the order to the Purchaser. The Vendor shall not disclose above information to any person, firm corporate body and/or authority and shall use all endeavors to ensure that the above information is kept confidential.

41.0 PATENT RIGHTS

Royalties and fees for patents covering material/equipment or process used in executing the work shall be to the account of the Vendor. The vendor shall satisfy all demands that may be made any time for such royalties and fees and shall be liable for damages, infringement and shall keep the purchase indemnified in that regard. In the event, any equipment/material or part thereof supplied by the Vendor is involved in any suit or other proceedings held to constitute infringements, and its use is enjoyed, the Vendor, shall at his own expenses, either procure for the purchaser the right to continue the use of such equipment/material or replace it with a non-infringing material/equipment/or modify it so that it becomes non-fringing.

42.0 COMPLIANCE OF REGULATIONS

The Vendor shall warrant that all goods and services covered by the Purchase Order have been produced, sold, dispatched, delivered, tested and installed and are in strict compliance with all applicable laws, regulations including industries (development and regulations) Act 1951 and technical codes and requirements as applicable from time to time.

The Vendor should execute and deliver such documents as may be needed by the Purchaser in evidence of compliance. All laws and regulations required to be incorporated by the Purchase Order are hereby deemed to be incorporated by this reference. Any liability arising out of contravention of any of the laws in executing the order shall be the sole responsibility of the Vendor.

43.0 CONTRACTOR'S DEFAULT

43.1 Notice of Default

If the Contractor is not executing the Works in accordance with the Contract or is neglecting to perform his obligations thereunder so as to seriously affect the programme for carrying out of the Works, the Purchaser may give notice to the Contractor requiring him to make good such failure or neglect.

43.2 Nature of Contractor's Default

If the Contractor:

- a) Has failed to comply within a reasonable time with a notice under sub-clause 43.1, or
- b) Assigns the Contractor sub-contracts the whole of the Works without the Employer's Written consent or
- c) Becomes bankrupt or insolvent and has a receiving order made against him or compounds with his creditors, or carries on business under a receiver, trustee or manager for the benefit of his creditors or goes into liquidation.

The purchaser may, after giving 15 days' notice to the Contractor terminate the Contract and expel the Contractor from this Site.

Any such expulsion and termination shall be without prejudice to any other rights or powers of the Purchaser, or the Contractor under the Contract.

The Purchaser may upon such termination complete the works himself or by any other Contractor. The Purchaser or such other Contractor may use for such completion any of the Contractor's equipment which is at the Site as he or they may think proper, and the Purchaser shall allow the Contractor a fair price for such use.

43.3 Valuation of Date of Termination

The Purchaser shall, as soon as possible after such termination, certify the value of the works and all sums then due to the Contractor as on the date of termination.

43.4 Payment after Termination

The Purchaser shall not be liable to make any further payments to the Contractor until the Works have been completed. When the Works are so complete, the Purchaser shall be entitled to recover from the Contractor the extra costs, if any, of completing the Works after allowing for any sum due to the Contractor under Sub-clause 46.3. If there is no such extra cost the Purchaser shall pay any balance due to the Contractor.

43.5 Effect on Liability for Delay

The Contractor's liability under clause 31 shall immediately cease when the Purchaser expels him from the Site without prejudice to any liability there under that may have already occurred.

44.0 SALE CONDITIONS

The order would constitute an entire agreement between the two parties there to. With the Vendor's acceptance of the provisions of the Purchase Order, he waives and considers as cancelled any of this general/special sales conditions.

45.1 CANCELLATION

The Owner reserves the right to cancel the order in part or in full by giving one week advance notice there by if:

- a) The Vendor fails to comply with any of the terms of the order.
- b) The Vendor becomes bankrupt or goes into liquidation.
- c) The Vendor makes general assignment for the benefit of the creditors; and
- d) Any receiver is appointed for the property owned by the Vendor.

46.0 DISPUTES AND ARBITRATION

46.1 The Purchaser & Supplier shall make every effort to resolve amicably by direct informal negotiation, any disagreement or dispute arising between them under or in connection with the Contract.

46.2 If after thirty (30) days from the commencement of such internal negotiations, the Purchaser & Supplier have been unable to resolve amicably a contract dispute; either party may require that the dispute be referred for resolution to the formal mechanism specified below.

46.3 The dispute resolution mechanism to be applied shall be as follows:

- (a) In the case of dispute between the Purchaser and bidder the dispute shall be referred to adjudication/arbitration in accordance with Indian Laws.

46.4 The award given by the Arbitrator(s) shall be speaking award.

46.5 Work to Continue

Performance of the contract shall continue during arbitration proceedings unless the Purchaser shall order suspension. If any such suspension is ordered the reasonable costs incurred by the Contractor and occasioned there by shall be added to the Contract Price.

46.6 No payments due or payable by the purchaser shall be with held on account of pending reference to arbitration.

47.0 LAW AND PROCEDURE

47.1 Applicable Law

The law which is to apply to the Contract and under which the Contract is to be constructed shall be Indian Law. The Courts of Delhi shall have exclusive jurisdiction in all the matters arising in the Contract including execution of Arbitration Award.

47.2 ACCEPTANCE OF TERMS AND CONDITIONS

The Bidder must confirm his acceptance of the terms and conditions mentioned here in above and the enclosed documents. In case any clause is not acceptable to the Bidder, the same should be specifically brought out in deviation schedule given in the Bid Proposal Sheets with categorical confirmation that all other clauses are acceptable to the Bidder. If no mention is made in this regard, it shall be presumed that all clauses mentioned here in above are acceptable to the Bidder.

48.0 SIGNATURE OF BIDS

48.1 The bid must contain the name and place of business of the person or persons making the bid and must be signed by the Bidder with his usual signature. The names of all persons signing should also be typed or printed below the signature.

48.2 Bid by a partnership must be furnished with full names of all partners and be signed with the partnership name, followed by the signature(s) and designation(s) of the authorized partner(s) or other authorized representative(s).

48.3 Bids by Corporation / Company must be signed with the legal name of the Corporation/Company by the President, Managing Director or by the Company Secretary or other person or persons authorized to bid on behalf of such Corporation/Company in the matter.

48.4 **Satisfactory evidence of authority of the person signing on behalf of the Bidder shall be furnished with the bid.**

48.5 The Bidder's name stated on the proposal shall be the exact legal name of the firm.

SECTION INB
INSTRUCTION TO BIDDERS

1.1 GENERAL INSTRUCTIONS

PFC Consulting Ltd. (here in after called Owner) invites e-Bids in respect of **Supply, Installation, Testing & Commissioning of 2x40 KVA UPS at PFCCL's new office space at 7th floor ('A' Wing), 9th floor ('A' Wing) and 13th floor ('A' Wing) of Statesman House , Barakhamba Road, Connaught Place, New Delhi**. All Bids shall be prepared and submitted strictly in accordance with these instructions.

- 1.2 The Owner reserves the right to itself to accept any Bid or reject any or all Bids or cancel/withdraw Invitation to Bid without assigning any reason for such decisions. Such decisions by the Owner shall bear no liability whatsoever consequent upon such a decision.

2.0 MINIMUM QUALIFYING REQUIREMENTS FOR BIDDERS

The bidder should meet the following eligibility requirements:

- 2.1 Bidder shall be an Indian Company/ firm engaged in Supply & Installation of UPS for last three years and having its sales & maintenance branch office in Delhi/NCR. (Certificate of incorporation to be submitted)

- 2.2 Bidder should be an Authorised dealer / Authorised Channel Partners of Original Equipment Manufacturer (OEM) and they are required to enclose the supporting document to this effect from OEM as performa at Appendix-III along with the proposal.

- 2.3 Bidder must have executed similar works in large Corporate/Govt./PSU (as specified in clause 2.1 above) during last Seven financial years among which bidder should meet any of the following criteria during last 07 Financial years till the bid due date

2.3.1 At least one similar completed works costing not less than Rs.14.5 Lakhs;

or

2.3.2 At least two similar completed works and each costing not less than Rs.9 Lakhs each;

or

2.3.3 At least three similar completed works and each costing not less than Rs.7.5 Lakhs each.

Documents to this effect i.e. Completion Certificate and Copy of PO along with any other supporting document (like confirming supply of material and installation report or release of 90% payment by purchaser towards invoice etc.) must be uploaded with technical bid through e-procurement in support of the above;

"Similar work" means that the bidder has successfully executed supply, installation of UPS to corporate sector/PSU.

- 2.4 Bidder should have minimum average annual turnover of Rs. 5.5 Lakhs (Rupees Five Lakhs Fifty Thousand only) during last three financial years. In support of this, bidder shall submit copies of audited balance sheet, profit and loss account statement etc.

- 2.5 Bidder should have valid registration no. of sales tax/vat/ service tax, whichever is applicable;

- 2.6 Bidder should have valid pan no.(copy of proof to been closed);
- 2.7 Owner reserves the right to carry out capability assessment of the Bidders and Owner's decision shall be final in this regard

The firm is required to submit (**upload**) the documentary evidence for meeting the above eligibility criteria as per the format enclosed at Annexure-IV (Schedule-1) in bidding document.

3.0 COST OF BIDDING

- 3.1 All the costs and expenses incidental to preparation and submission of the proposals, discussions including pre-award discussions with the successful Bidder etc. shall be to the account of the Bidders and the Owner shall not be responsible in any way whatsoever, and shall bear no liability whatsoever, on such costs and expenses, regardless of the conduct or outcome of the Bidding process.

4.0 INSPECTION OF SITE

- 4.1 The Bidders are at liberty to visit the site for inspection.

5.0 DOCUMENT COMPRISING THE BID

- 5.1 The Bidder shall complete all thee-Bid Forms inclusive of Price Schedules, Schedule of Requirements etc. furnished in the NIT, indicating, for the products to be supplied and services to be rendered, a brief description of products and services, quantities and prices.
- 5.2 The Bidder shall also upload documentary evidence to establish that the Bidder meets the Qualifications Requirements as detailed in clause 2.0 above.

5.3 Scope of the Proposal

- 5.3.1 The scope of the proposal shall be on the basis of a sole responsibility of the bidder, completely covering all the materials and services specified under the accompanying NIT documents.

6.0 The bidder should also upload the under mentioned information:

a.	Name of the firm, address, telephone and fax nos.	:	
b.	E-mail Address	:	
c.	Name of the Contact Person Telephone/Mobile No.	:	
d.	Name of the Bank (with full Address)	:	

e.	Bank Account No. (Enclose an unsigned cheque duly cancelled)	:	
f.	PAN No.	:	
g.	TIN No./ Sales Tax No.	:	
h.	Service Tax No.	:	
i.	Details of Earnest Money Deposit Name of the Bank Banker's Cheque No. & Date	:	

7.0 **FORMAT AND SIGNING OF BID**

7.1 The Bidder shall complete all the procedure and format of the bid through **e-procurement** Process.

7.2 Bids not confirming to the above requirements of Clause 7.0 may be disqualified.

8.0 **BID PRICES**

8.1 The Bidder shall indicate, in line with the price schedule enclosed in Bid proposal sheets. All rates and amount shall be written both in figures and words and shall be indicated in Indian rupees only.

9.0 **BID SECURITY**

9.1 A Bid security i.e. EMD i.e. Rs.1,00,000/- in the form of Demand Draft /Banker's Cheque drawn in favour of "PFC Consulting Ltd." payable at New Delhi and whose validity should be at least 3 months and further extendable as desired by owner from the date of opening of bids. Bidders are required to write their name and full address on the back of Bank Draft/Banker's Cheque submitted in support of tender document.

Or

The bidders may submit an irrevocable bank guarantee as per Clause 5 of GPC from any Nationalized Indian Bank or reputed commercial bank equivalent to Rs. 1,00,000 /- in favour of PFC Consulting Ltd., New Delhi in the format furnished in Appendix.

9.2 The Bid Security shall be made payable to the Owner without any condition. The Bank guarantee (towards Bid Security) shall be valid for a period of 3 (three) calendar months from the date of opening of Bids which shall be extended from time to time as desired by the Purchaser.

9.3 The Bid security is required to protect the Owner against the risk of Bidders conduct which would warrant the security for feature

9.4 If the successful Bidder fails to accept letter of award /purchase order, the Bid security amount shall be forfeited. Bid security amount may also be forfeited if a Bidder withdraws his Bid during the period of Bid validity.

9.5 The Bid security of all the Bidders except that of the successful Bidder will be returned within thirty (30) days after the Award of Contractor 15 days after the expiration of the period of Bid validity whichever is earlier.

9.6 Any Bid not accompanied by a Bid security in accordance with above provisions will be

treated as non-responsive and will be rejected by the Owner.

9.7 No interest or any other cost will be payable by the Owner on the Bid security.

10.0 **PERIOD OF VALIDITY OF BIDS**

10.1 Bids shall be kept valid for acceptance for a period of 4(four) calendar months from the date of opening of Bids. A Bid valid for a shorter period may be rejected by the Owner as non-responsive.

11.0 **SUBMISSION OF BIDS TO THE OWNER**

11.1 The Bidder shall submit the bids through <https://www.tcil-india-electronictender.com>. The banker's cheque/ demand draft on a/c of EMD shall be forwarded to us before the opening date of technical bid. However, scanned copy of the fees (EMD) is to be **uploaded** in the system through e-procurement. The bids are to be uploaded on above portal in two parts i.e. Technical and Price bid. The technical bid should have all the technical details along with scanned copy of demand drafts on account of EMD. Price bid should have only price details. If price schedule or any details of price bid is disclosed in technical bid, the bid will be out-rightly rejected.

11.2 Any Bid received by the Owner after the deadline for submission of e-Bids prescribed by the Owner, in the Invitation to Bid shall be automatically rejected by the system.

12.0 **WITHDRAWAL OF BIDS**

12.1 No Bid may be withdrawn in the interval between the deadline for submission of Bids and expiration of the period of Bid validity. Withdrawal of a Bid during this interval shall result in the forfeiture of Bid Security of the Bidder.

13.0 **OPENING OF THE BIDS BY THE OWNER**

13.1 The Bids shall be opened by the Owner on scheduled bid opening date and time as specified in Invitation of Bids or in the case any extension has been given there to, after the extended Bid submission date notified to all Bidders.

14.0 **PRELIMINARY EXAMINATION**

14.1 The Owner will examine the Bids to determine whether they are complete, whether required Bid security has been furnished, whether Bidder fulfills the qualifying requirements and whether the Bids are generally in order.

14.2 Prior to detailed evaluation, the Owner will determine the substantial responsiveness of each Bid with reference to the Bidding documents. A substantial responsive Bid is one which confirms to all the terms and conditions of the Bidding documents without material deviation. The Owner's determination of Bids responsiveness will be based on the contents of the Bid itself.

14.3 A Bid determined as not substantially responsive will be rejected by the Owner and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

14.4 The Owner may waive any minor informality or non-conformity or irregularity in a Bid which does not constitute a material deviation. The decision of the Owner with regards to the deviation being material or not shall be final and binding.

15.0 **EVALUATION OF BIDS**

15.1 The Owner will evaluate and compare the Bids previously determined to be substantially

responsive pursuant to Clause 14.0.

- 15.2 The Bids submitted by the Bidders which do not meet the qualifying requirements as per Clause 2.1 Section IN B will be treated as non-responsive and will be rejected.

15.2.1 Technical Proposal Evaluation

The Technical Proposal will be opened online on **24.10.2016 at 14:00 hrs. (IST)**. The Technical Proposal would be evaluated on the following basis:

A) Responsiveness Check

The responsiveness check will be with respect to the following:

- i) The Technical Proposal should contain Schedule-1, Schedule-2, Schedule-3 and Appendix-I duly filled and signed by the authorized signatory. The Authority Letter shall be submitted as per Schedule-4.
- ii) The Bidder should agree to the entire scope of work and deliverables (given in the Appendix - IV). No proposal for deviation/ conditional scope of work will be considered.
- iii) Details of past experience and other relevant documents for meeting the eligibility requirements are to be provided in Technical Bid as per format at Schedule-1. Documentary evidence (e.g. Copy of work Order/Letter of Award/Lol/Purchase Order or any other related documents etc. and proof of satisfactory completion for assignments handled from their Clients.) to be provided in support of past experience.
- iv) Adequacy of the proposed Methodology, Work Plan, Resources and manpower and capability know-how are to be provided in responding to the Scope of Work as per Schedule-5.
- v) Details of composition of Team and Team Leader proposed to be deployed are to be provided in Technical bid as per format provided at Schedule-6.
- vi) Requisite Earnest Money Deposit in form of crossed demand draft of any nationalized bank or scheduled bank or bank guarantee in favour of PFC Consulting Ltd. Payable at New Delhi as per Appendix -II.

PFCCL may call for any clarifications/ information if required. Bid of any firm not meeting any or all the above criteria, the technical evaluation of the firm will not be carried out and the bid shall be rejected outright.

B) Evaluation

The Technical Proposal would be evaluated on the following basis:

- a) The bidder's relevant experience as per QR will be considered as per relevant documentary evidence submitted by the bidder as per Schedule 1
- b) The bidder's turnover as per QR.

Note: The bidders are required to submit the documentary evidence in support of claiming the above experience and details shall be furnished as per Schedule 1

- 15.3 The Bids submitted by the Bidders which do not meet the qualifying requirements as per Clause 15.2 will be treated as non-responsive and will be rejected.

16.1 AWARD OF WORK

- 16.2 Notification of Award of Contract will be made in writing by registered post or by hand/through email communication to the successful Bidder by the Owner. The notification of award shall constitute the formation of Contract.
- 16.3 Owner reserves the right to split the Scope of work and may award separate Contracts to two or more Bidders.
- 16.4 The Owner reserves the right, to accept any Bid (not necessarily the Bid having lowest Bid prices) or to reject any or all Bids or to cancel/withdraw the Invitation to Bid or to annul the Bidding process at any time prior to Award of Contract, without assigning any reason for such decision. Such decision by the Owner shall not be subject to question by any Bidder and the Owner shall bear no liability whatsoever consequent upon such a decision nor shall he have any obligation to inform the affected Bidder or Bidders of the grounds for the Owner's action.
17. **CONTRACT PERFORMANCE GUARANTEE:**

Within 15 days of notification of award of the contract, as a Contract Performance Security, the successful bidder, to whom the work is awarded, shall be required to furnish a contract performance guarantee from (a) a Public Sector Bank or (b) a scheduled Bank, in favor of owner in the prescribed proforma. The guarantee amount shall be equal to 10% of the total contract price and it shall guarantee the faithful performance of the contract in accordance with the terms and conditions specified in these documents and specifications. The guarantee shall be valid up to three months beyond completion of warranty period.

ANNEXURE III

**SECTION DTS
TECHNICAL SPECIFICATIONS FOR
UPS**

1.0 GENERAL REQUIREMENTS

- 1.1 PFC Consulting Ltd. invites E-Bids for Supply, Installation, Testing & Commissioning of 2x40 KVA UPS at PFCCL's new office space at 7th floor ('A' Wing), 9th floor ('A' Wing) and 13th floor ('A' Wing) of Statesman House.
- 1.2 In case of any discrepancy between the provisions of this section and provisions of other section of tender documents, the provisions of this section shall prevail.
- 1.3 The Equipment provided under these specifications shall be complete with power cables.
- 1.4 UPS shall be from the reputed/certified/as per best of the Industry Practice Original Equipment Manufacturer (OEM). In case during the warranty of the UPS any of these components or sub-components require replacement the same shall be replaced by the brand new spare parts bearing the same OEM part no.

2.0 SCOPE OF WORK:

PFCCL has hired its office space at 7th floor ('A' Wing), 9th floor ('A' Wing) & 13th floor ('A' Wing) at Statesman House, Barakhamba Road, Connaught Place, New Delhi. The UPS & batteries would be installed at 13th floor ('A' Wing) and the UPS supply would be provided through cabling to 7th floor ('A' Wing), 9th floor ('A' Wing) & 13th floor ('A' Wing). The scope of above UPS cabling to be included in item 2 below.

- 1) **UPS:** The scope of work includes supply, installation, testing & commissioning System capacity – 2*40 KVA UPS with 25 minutes backup on full load with 32*65 AH batteries. (Including Battery Rack, Links and accessories etc.), # 3 years OEM Warranty on UPS & Batteries. The detailed Technical specification has been given at Annexure- III-A {Lot}
- 2) Installation & Commissioning of above items at 1 (UPS cabling as per site condition)

3.0 VENDORS RESPONSIBILITY:

Vendor's responsibility shall include the following:

- 3.1 Supply and installation of all the hardware and software items as per the scope detailed in clause 2.0 above and as per detailed technical specifications. All these equipment/accessories will be warranted and must operate at or above the guaranteed values with regard to availability.
- 3.2 The system spare parts, as and when required and complete maintenance support of the system in future shall be back to back guaranteed from OEM for a period of 3 years from the date of successful taking over of the system by the owner from the vendor.
- 3.3 One copy of Hardware and Software documentation shall be provided along with the supply of equipment. The vendor shall provide services as detailed in this specification.
- 3.4 The vendor shall arrange for all tools, tackles, testing instruments etc. as required during all

operations such as transportations, installation, testing and commissioning etc. for completing the scope of work as per this specification. These tools and tackles and testing instruments etc. shall be allowed to be taken back by the vendor. The vendor shall undertake all testing and commissioning activities and shall provide assistance during inspection and acceptance testing by the owner.

- 3.5 Vendor shall provide all required equipment and services, whether explicitly mentioned in these specifications or not, to fulfill the intent of the specification and to ensure completeness, operability and maintainability of the system at no extra cost to the owner.
- 3.6 Vendor shall furnish the part No./Product identification Number for all products as provided by the original manufacturer.
- 3.7 Vendor shall provide a clear and explicit activity wise action plan and schedule of completion of the above work.

4.0 BID DATA:

- 4.1 The Bidder must furnish complete information asked in this specification. Incomplete information may lead to the rejection of the Bid. Bidder has to quote for the total scope of supply and other works. Bidder offering in complete scope of supply and other works are liable to be rejected. Amongst other things, the Bidder must supply the details/specifications regarding the following items along with his bid:
 - a) Hardware: Comprehensive write-upon features of H/W Systems.
 - b) Software: Comprehensive write-upon features of Operating System, Utilities and other packages including version details.
 - c) Site Preparation, Supervision and Installation.
 - d) Special requirements, if any, of operating parameters like the range of temperature, humidity, dust level and power requirement.
- 4.2 Printed Brochures /Pamphlet/Leaflet illustrating Technical details/ specifications etc. for all the items/ materials quoted should be enclosed with bid.
- 4.3 The Bidder must address all the above aspects in the same order and must indicate very specifically any deviation taken by him on account of make/ configuration/technical and other particulars in a separate schedule included in the bid documents. Unless specifically brought out in the specific schedule as mentioned above, the bid shall be deemed to be in line with the technical and other particulars mentioned in the tender specifications.

5.0 SITE PREPARATION, SUPERVISION AND INSTALLATION:

- 5.1 It shall be the responsibility of the vendor to supervise the site preparation by the owner to ensure that the site is prepared as per his requirements such as environmental conditions, power requirements etc. The vendor shall ensure that his system operates efficiently under these conditions.
- 5.2 The vendor shall furnish along with his offer a list of facilities and other necessities required by him, if any, for site preparation etc. The vendor shall be fully responsible for installation and commissioning of the equipment including cabling related to installed equipment (except power cables) and other related activities such as unpacking, uncrating, inspection etc. for which the owner shall provide the required space at his premises, the vendor will have to arrange by himself all testing equipment and tools required for maintenance and make his own transport arrangements.

6.0 DOCUMENTATION:

The documentation in original shall include the followings:

- 6.1 **HARDWARE:** The necessary Operating Manuals for all the H/W Systems/subsystems, peripherals being supplied. The extent of documentation to be furnished shall be to the satisfaction of the Owner.
- 6.2 **SOFTWARE:** User and reference manuals related to complete software being supplied. The documentation shall be to the satisfaction of the owner.

7.0 TESTING & ACCEPTANCE BY PFCCL.

- 7.1 Any other test(s), as PFCCL may deem fit so as to confirm the performance or to establish the technical specifications of either individual hardware item or for the integrated operation of network, shall be done by Supplier at the Site. Should the results of these tests show any deficiency from the corresponding specifications or operation is not up to the desired level of performance, Supplier shall do the necessary replacement so as to make the Hardware items to function at the desired level of performance. All costs for such replacements shall be borne by Supplier.
- 7.2 After satisfactory completion of acceptance tests and installation of the equipment/systems/software by the Vendor, the acceptance certificate will be issued by the PFC Consulting Ltd. in writing after which the Equipment shall be handed over to PFC Consulting Ltd.
- 7.3 Acceptance or waiver of tests will not relieve the Vendor from the responsibility to furnish material in accordance with the specifications.
- 7.4 PFC Consulting Ltd. also reserves the right to conduct any testing/benchmarking of previously approved materials at any stage before taking over of the system and if the same reveal noncompliance to the specifications, the Vendor shall take necessary action so that the material/system/software conforms to the specifications to the satisfaction of the owner.

8.0 WORK SCHEDULE:

The hardware and software shall be delivered, installed and commissioned in full at the sites within 25 days from the date of order. However the bidder should put all its effort to complete the scope of work as early as possible. Thereafter the hardware and software shall be handed over to the owner as per the relevant clauses above. Partial delivery and installation, if necessary shall be allowed only with prior approval of the owner.

9.0 QUANTITY VARIATION:

During the execution of the contract, Owner reserves the right to increase or decrease the quantities of items under the contract but without any change in Unit price or other terms and conditions. Such variation shall be subject to limit of Plus or Minus 25% of the total contract price, however, quantity of individual item may vary up to any extent.

10.0 REPEAT ORDER OPTION:

Owner reserves the right to award additionally any of the hardware/software items covered under this contract to the extent of 50% of the total award value at the same rates, terms & conditions within three months from the date of order.

11.1 PAYMENT TERMS:-

- a) 90% post successful installation/implementation/Configuration of UPS as specified in the scope of work.
- b) 10% post go live Two (02) Month warranty period.

12.0 WARRANTY:

- 12.1 Vendor shall provide on-site comprehensive back to back warranty from OEM for trouble free operation of hardware and software, supplied under this contract, for a minimum period of 3 calendar years after commissioning and successful testing and taking over. Documentary proof from OEM confirming 3 years on-site comprehensive warranty should be closed with the bid offer. During this period, it will be the responsibility of the vendor to maintain and support the hardware and software fully and ensure availability of the same. The Vendor shall be responsible for providing, free of cost, all supplies, spares and services necessary for maintenance during warranty. The vendor shall arrange for stand by equipment, if the faulty equipment is not rectified within two working days or machines are taken out of PFC Consulting Ltd. premises for servicing/repair. Mechanical breakages are not included in the warranty.
- 12.2 The Vendor shall provide periodic preventive maintenance during the warranty including cleaning or periodic inspection. The preventive maintenance schedule recommended shall be furnished by the vendor and shall be finalized in consultation with the Owner.
- 12.3 The detailed scope of services to be provided by vendor during Warranty period, shall include but not limited to the following:
- a. Vendor shall provide comprehensive maintenance support for satisfactory performance of all Hardware supplied under this contract.
 - b. In case of any failure/non-operation of above items the same shall be attended by the vendor within 24 hours of lodging the complaint by PFC Consulting Ltd., excluding intervening holidays. Vendor should also provide details of appropriate escalation levels in case of non-satisfactory service support.
 - c. Once complaint is lodged with the service center for repair/maintenance, the problem must be attended to within 24 hours as mentioned above and records for the repair/maintenance carried out, should be maintained. A call report sheet giving the details of problem attended, duly signed by the concerned end user shall be maintained.

13 SITE VISIT

The bidders are strongly advised to visit and examine the existing infrastructure and to obtain himself, on his own responsibility, all information that may be necessary for preparing the Bid and entering into a Contract. The costs of visiting the sites shall be bidders own expenses. The purchaser/Owner will assist.

MINIMUM SPECIFICATIONS FOR UPS (Attached as Annexure III-A)

Warranty & Support:

UPS should include:

- On site comprehensive back to back warranty support from **OEM for 3 years** and to this effect, confirmation letter from OEM should be submitted along with the tender.

BOQ FOR UPS

S. No.	Description of Item	Qty.
1	2*40 KVA UPS with 25 minutes backup on full load with 32*65 AH batteries. (Including Battery Rack, Links and accessories etc.), # 3 years OEM Warranty on UPS & Batteries.	Lot
2	Installation & Commissioning of above items at 1 (UPS cabling as per site condition)	Lot

TECHNICAL DEVIATIONS

Technical Deviations for Supply & Installation of UPS shall be uploaded through e-procurement in the following prescribed Proforma

The following are the Technical deviations and variations from the exceptions to the specifications and documents against Detail Technical Specification of Ref. No./ORG/2016/UPS. These deviations and variations are exhaustive. Except these deviations and variations the entire work shall be performed as per PFC Consulting Ltd. specifications and documents.

Sl. No.	Section	Clause No.	Page No.	Statement of deviations and variations

SCHEDULE – 4: AUTHORISATION LETTER
(ON THE LETTER HEAD OF THE ORGNISATION /FIRM)

We authorize _____ [Name of the person], who is employed and holding the position of[Designation] in our Company, to submit bid on our behalf and do all such acts, deeds and things necessary in connection with or incidental to submission of Bids for [Name of the Bid]. The Signature of the Authorized Person is also attested herewith.

Signature of Authorized Person:

Full Name:

Designation:

Signature:

Full Name:

Designation:

Address:

(Seal)

SCHEDULE -5

THE PROPOSED METHODOLOGY, WORK PLAN, RESOURCES AND MANPOWER FOR UNDERTAKING THE TASKS AS PER SCOPE OF WORK AND DELIVERABLES

Bidder`s Name & Address

To
PFC Consulting Limited
(A wholly owned subsidiary of Power Finance Corporation Ltd.)
First Floor, "Urjanidhi", 1-Barakhamba Lane
Connaught Place
New Delhi-110 001

Dear Sir,

We hereby endorse a brief write up on the proposed methodology to be adopted **for Supply, Installation, Testing & Commissioning of 2x40 KVA UPS at PFCC's new office space at 7th floor ('A' Wing), 9th floor ('A' Wing) and 13th floor ('A' Wing) of Statesman House** indicating the following:

- i) Approach Methodology and Work Plan in responding to scope of work and deliverables
- ii) Resources available for performing the assignment.
- iii) Key Personnel and their Task Assignment for Completing the Assignment

Authorised Signatory:

Full Name:

Address:

(Seal)

SCHEDULE – 6: CURRICULUM VITAE FOR EACH MEMBER OF CONTRACTOR’S TEAM

Name: _____

Profession/ Present Designation: _____

Total post qualification experience: _____ Years with organisation: _____

Educational Qualification: _____

(Under this heading, summarise college/ university and other specialized education of staff member, giving names of colleges, etc. degrees obtained.)

Experience:

(Under this heading, list of positions held by staff member since graduation, giving dates, names of employing organisation, title of positions held and location of assignments.)

Language:

(Indicate proficiency in speaking, reading and writing of each language by ‘excellent’, ‘good’ or ‘poor’)

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes me, my qualifications, and my experience. I understand that any wilful misstatement described herein may lead to disqualification of the firm.

Signature of Team member

Full Name

Date

Signature of Authorised Signatory

Full Name

Date

Format for Quoting Rates (Price schedule)

(PRICE BID) (Through e-procurement)

UPS

S. No.	Description of Item	Qty.	Unit Rate (in Rs.)	Amount (in Rs.)	Applicable Taxes/Duties	Total Amount (in Rs.)
1	2*40 KVA UPS with 25 minutes backup on full load with 32*65 AH batteries. (Including Battery Rack, Links and accessories etc.), # 3 years OEM Warranty on UPS & Batteries.	Lot				
2	Installation & Commissioning of above items at 1 (UPS cabling as per site condition)	Lot				

Note:

1. Please indicate the total amount payable in words also.
2. All above items would be as per specification given at Annexure-III, and complying with the requirement of tender document.
3. Bidder has to quote the rate as well as total amount for each individual item above along with Taxes. "If a firm quotes nil charges / Consideration, the bid shall be treated as unresponsive and will not be considered."

Name of the Contact person _____

Tel./ Mobile No. _____

E-mail ID _____

Date:

Place:

Signature with Seal

APPENDIX-I

PROFORMA FOR BANK GUARANTEE FOR BID GUARANTEE

(To be stamped in accordance with Stamp Act)

M/s.PFC Consulting Ltd.
 Frist Floor , "Urjanidhi",
 1,Barakhamba Lane,
 Connaught Place,
 New Delhi-110001.
 Dear Sir,

In accordance with your Tender Specification NO.....
 M/s.....having its Registered/Head Office
 at..... (here in after called the "Bidder") wish to participate
 in the said bid for

Valid for.....months from the date of bid opening is required to be submitted by the Bidder as a condition precedent for participation in the said bid which amount is liable to be forfeited on the happening of any contingencies mentioned in the Bid Documents.

We, theBank at.....having our Head Office at
Guarantee and under to pay immediately on demand by PFC Consulting Ltd.,
 the amount.....

(in Figures & Words)

Without any reservation, protest, demur and recourse. Any such demand made by said Owner shall be conclusive and binding on us irrespective of any dispute or difference raised by the Bidder.

This guarantee shall be irrevocable and shall remain valid up to.....
If any further extension of this guarantee is required the same shall be
 extended to such required period (not exceeding one year) on receiving instructions from
 M/s.....on whose behalf the guarantee is issued.

In witness where of the Bank, through its authorized officer has set its hand stamped on
 this.....day of.....2016.....at

WITNESS:

(Signature)

Name:

(Signature)
 Name
 Attorney as per Power of Attorney No.

Date.....

(Official Address)

- * The amount should be as indicated by the Purchaser.
- ** This date should be 30days after the date for which bid are valid.

Note:

- i) The non-judicial stamp papers for this bid guarantee should be purchased in the name of the issuing Bank.
- ii) This bank guarantee must be issued by a nationalized Indian Bank / Commercial bank as indicated in Clause.

PROFORMA BANK GUARANTEE FOR CONTRACT PERFORMANCE
(To Be Stamped In Accordance With Stamp Act)
(Reference Clause of Contract)

(The non-judicial stamp paper should be in the name of issuing bank)

Ref. No.....

Bank Guarantee

No.....Date.....

To,
PFC Consulting Ltd.
First Floor , UrjaNidhi,1 Barakambha Lane,
Connaught Place, New Delhi-110001

Dear Sir,

In consideration of the PFC Consulting Ltd. (here in after referred to as the `Owner` which expression shall unless repugnant to the context or meaning there of include its successors, administrators and assigns) having awarded to M/s.....with its Registered/Head Office at (herein after referred to as the Contractor or Vendor which expression shall unless repugnant to the context or meaning there of include its successors, administrators and assigns)a Contract by issue of Owner's Letter of Award No..... dated..... and the same having been unequivocally accepted by the Contractor/Vendor resulting into a contract value datfor..... (Scope of Contract) and the Contractor/Vendor having agreed to provide a Contract Performance Guarantee for the faithful performance of the entire contract, equivalent to.....% (Percent) of the said value of the contract to the Owner. We..... (name and address),having its Head Office at (herein after referred to as the `Bank`, which expression shall , unless repugnant to the context or meaning there of, include its successors, administrators, executors and assigns) do here by guarantee and undertake to pay the Owner, on demand any and all monies payable by the Contractor/Vendor to the extent of.....as a foresaid at anytime upto.....(Days/month/year)without any demur, reservation, contest, recourse or protest and/or without any reference to the Contractor/Vendor.

Any such demand made by the Owner on the Bank shall be conclusive and binding not withstanding any difference between the Owner and Contractor/Vendor or any dispute pending before any court, tribunal or any other authority. The Bank undertakes not to revoke this guarantee during its currency without previous consent of the Owner and further agrees that the guarantee here in contained shall continue to been forceable till the Owner discharges this guarantee.

The Owner shall have the fullest liberty without affecting in anyway the liability of the Bank under this guarantee from time to time to extend the time for performance of the contract by the Contractor/Vendor. The Owner shall have the fullest liberty, without affecting this guarantee, to postpone from time to time the exercise of any powers vested in the m or of any right which they might have against the Contractor/Vendor, and to exercise the same at any time in any manner, and either to enforce or to for bear to enforce any covenants, contained or implied, in the Contract between the Owner and the Contractor/Vendor or any other course of or remedy or security available to the Owner. The Bank shall not be released of its obligations under the represents by any exercise by the Owner of its liberty with reference to the matters aforesaid or any of them or by reason of any other acts of omission or commission on the part of the Owner or any other indulgence shown by the Owner or by any other matters or thing whatsoever which under law would, but for this provision, have the effect of relieving the Bank.

The Bank also agrees that the Owner at its option shall been titled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Contractor/ Vendor

and not withstanding any security or other guarantee that the Owner may have in relation to the Contractor / Vendor's liabilities.

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

Dated this.....Day of.....2016.....at.....

WITNESS: (Authorized Signatories of the Bank)

1.
 (Signature) (Signature)

Name: Name:

Official Address: Official Address:

2.
 (Designation with Bank Stamp)
 Attorney as per Power of Attorney No.....dated.....

.....
 (Signature)

Name:.....

Official Address:.....

- Note:
1. This sum shall be ten percent(10%) of the total lump-sum Contract Price.
 2. The date shall be 90days after the end of Warranty Period.
 3. The stamp paper of appropriate value shall be in the name of Bank issuing the guarantee.

APPENDIX- III

**LETTER OF AUTHORITY FROM ORIGINAL EQUIPMENT MANUFACTURER –
PROFORMA**

(To be furnished in Original on the Manufacturer's Letter head)

M/s. PFC Consulting Ltd.
Frist Floor , "Urjanidhi"
1 Barakhamba Lane,
Connaught Place,
New Delhi - 110001.

Dear Sir,

Ref.: Specification NO.....

In continuation with your above captioned invitation to Bid M/s.....

.....
(Name and Full Address)

(Telephone.....and Fax.....)

Will act as our authorized dealer/ representative/ agent. We here by confirm that any other/commitments made by the m including prices, technical specifications and delivery schedules shall be binding on us.

This authority shall remain valid and binding until revoked with notice to you.

Any commitment made by the above agency before revocation of the authority shall be binding on us.

Yours faithfully,

For and on behalf of.....

Name.....

Designation.....

Common Seal.....

LETTER OF ACCEPTANCE
To be furnished on the Tenderer's Letter head

M/s.PFC Consulting Ltd.,
First Floor, "Urjanidhi", 1, Barakhamba
Lane, Connaught Place, New Delhi-110001.

**Subject: Supply, Installation, Testing & Commissioning of 2x40 KVA UPS at
PFCCCL's new office space at 7th floor ('A' Wing), 9th floor ('A' Wing) and 13th
floor ('A' Wing) of Statesman House.**

Dear Sir,

With reference to your Bid Ref. No. 08/ORG/2016/UPS dated 14.10.2016 for "Supply, Installation, Testing & Commissioning of 2x40 KVA UPS at PFCCCL's new office space at 7th floor ('A' Wing), 9th floor ('A' Wing) and 13th floor ('A' Wing) of Statesman House.", we here by confirm that we have read the provisions of the bid documents and further confirm to accept all the terms and conditions contained in the bid documents except those against which we have taken deviation in the respective schedules.

Thanking you.

Yours faithfully,

For and on behalf of.....

Name.....

Designation.....

Common Seal.....

Special instructions to Bidders for e-Tendering

General

The Special Instructions (for e-Tendering) supplement “Instruction to Bidders”, as given in these Tender Documents .Submission of Online Bids is mandatory for this Tender.

E-Tendering is a new methodology for conducting Public Procurement in a transparent and secured manner. Now, the Government of India has made e-tendering mandatory. Suppliers/Vendors will be the biggest beneficiaries of this new system of procurement. For conducting electronic tendering, *PFC Consulting Ltd.*, (a wholly owned subsidiary of Power Finance Corporation Ltd.) has decided to use the portal <https://www.tcil-india-electronictender.com> through TCIL, a Government of India Undertaking.

This portal is based on the world’s most “secure” and “user friendly” software from Electronic Tender[®]. A portal built using Electronic Tender’s software is also referred to as Electronic Tender System[®] (ETS) .

Benefits to Suppliers are outlined on the Home-page of the portal.

Instructions

Tender Bidding Methodology:

Sealed Bid System

- *Single Stage Two Envelope*

Broad Outline of Activities from Bidder’s Perspective:

1. Procure a Digital Signing Certificate(DSC)
2. Register on Electronic Tendering System[®](ETS)
3. Create Marketing Authorities (MAs), Users and assign roles on ETS. It is mandatory to create at least one MA.
4. View Notice Inviting Tender(NIT)on ETS
5. For this tender—Assign Tender Search Code (TSC)to an MA.
6. Download Official Copy of Tender Documents from ETS. Note: Official copy of Tender Documents is distinct from downloading “Free Copy of Tender Documents”. To participate in a tender, it is mandatory to procure official copy of Tender Documents for that tender by tender close date.
7. Clarification to Tender Documents on ETS
 - Query to *PFC Consulting Ltd.*(Optional)
 - View response to queries posted by *PFC Consulting Ltd.*
8. Bid-Submission on ETS
9. Attend Public Online Tender Opening Event(TOE)on ETS
 - Opening of relevant Bid-Part
10. Post-TO E Clarification on ETS(Optional)
 - Respond to *PFC Consulting Ltd.* Post-TO E queries
11. Attend Public Online Tender Opening Event(TOE)on ETS
 - Opening of relevant part(I e Financial-Part)(Only for Technical Responsive Bidders)

For participating in this tender online, the following instructions are to be read carefully. These instructions are supplemented with more detailed guidelines on the relevant screens of the ETS.

Digital Certificates

For integrity of data and authenticity/non-repudiation of electronic records, and to be compliant with IT Act 2000, it is necessary for each user to have a Digital Certificate (DC). Also referred to as Digital Signature Certificate (DSC), of Class2orabove, issued by a Certifying Authority (CA) licensed by Controller of Certifying Authorities (CCA) [refer <http://www.cca.gov.in>].

Registration

To use the Electronic Tender[®] portal <https://www.tcil-india-electronictender.com>, vendors need to register on the portal. Registration of each organization is to be done by one of its senior persons who will be the main person coordinating for the e-tendering activities. In ETS terminology, this person will be referred to as the Super User (SU) of that organization. For further details, please visit the website/portal, and click on the "Supplier Organization" link under Registration" (on the Home Page), and follow further instructions as given on the site. Pay Annual Registration Fee as applicable.

After successful submission of Registration details and Annual Registration Fee, please contact TCIL/ETS Helpdesk (as given below), to get your registration accepted/activated

Important Note: To minimize the things problems during the use of ETS (including the Registration process), it is recommended that the user should peruse the instructions given under, "ETS User-Guidance Center" located on ETS Home Page, including instructions for timely registration on ETS. The instructions relating to, "Essential IT Networking equipments and UPS Security Settings for Use of ETS" and "Important Functionality Checks" should be especially taken into cognizance.

Please note that even after acceptance of your registration by the Service Provider, to respond to a tender you will also require time to complete activities related to your organization, such as creation of users, assigning roles to them, etc.

TCIL/ ETS Helpdesk	
Telephone/Mobile	Customer Support:+91-11-26241790 Emergency Mobile Numbers: +91-9868393775, 9868393717 , 9868393792
E-mail ID	ets_support@tcil-india.com [Please mark CC: support@electronictender.com]

PFC Consulting Ltd. Contact	
Contact Person	Mr.Virendra Kumar Jain SVP(Unit-1)
Telephone/Mobile	011-23456136 011-23456122 [between 10:00 hrs to 16:00 hrs on working days]
E-mail ID	vk_jain@pfcindia.com/ prakash_shivnani@pfcindia.com

Some Bidding related Information for this Tender (Sealed Bid)

The entire bid-submission would be online on ETS (unless specified for Offline Submissions). Broad outline of submissions are as follows:

- Submission of Bid-Parts/ Envelopes
 - Technical-Part

- Financial-Part
- Submission of information pertaining Bid Security/ Earnest Money Deposit (EMD)
- Submission of digitally signed copy of Tender Documents/ Addendum
- Submission of General Terms and Conditions (with/ without deviations)
- Submission of Special Terms and Conditions (with/ without deviations)

Offline Submissions:

The bidder is requested to submit the following documents offline to the under mentioned address before the start of Public Online Tender Opening Event in a Sealed Envelope.

*Contact Persons Name: SVP (UNIT 1)
Address: PFC Consulting Ltd.
First Floor, Urjanidhi, '1',
Barakhamba Lane, C.P.,
New Delhi*

The envelope shall bear (E-Tender for Supply, Installation, Testing & Commissioning of 2x40 KVA UPS at PFCCL's new office space at 7th floor ('A' Wing), 9th floor ('A' Wing) and 13th floor ('A' Wing) of Statesman House.), the tender number and the words 'DO NOT OPEN BEFORE 24.10.2016; 12:00 HRS.'

1. *Original copy of the EMD/ Bid Security (DD/Bank Guarantee) as detailed in tender documents.*

Note: The Bidder should also upload the Scan copy of all above said original documents as Bid-Annexure during Online Bid-Submission.

Special Note on Security and Transparency of Bids

Security related functionality has been rigorously implemented in ETS in a multi-dimensional manner. Starting with 'Acceptance of Registration by the Service Provider', provision for security has been made at various stages in ElectronicTender's software. Specifically for Bid Submission, some security related aspects are outlined below:

As part of the Electronic Encrypter™ functionality, the contents of both the "Electronic Forms" and the "Main-Bid" are securely encrypted using a **Pass-Phrase** created by the Bidder himself. Unlike a "password", a **Pass-Phrase** can be a multi-word sentence with spaces between words (e.g. "I love this World"). A **Pass-Phrase** is easier to remember, and more difficult to break. It is recommended that a separate **Pass-Phrase** be created for each Bid-Part. This method of bid-encryption does not have the security and data-integrity related vulnerabilities which are inherent in e-tendering systems which use Public-Key of the specified officer of a Buyer organization for bid-encryption. Bid-encryption in ETS is such that the Bids cannot be decrypted before the Public Online Tender Opening Event (TOE), even if there is connivance between the concerned tender-opening officers of the Buyer organization and the personnel of e-tendering service provider.

CAUTION: All bidders must fill Electronic Forms™ for each bid-part sincerely and carefully, and avoid any discrepancy between information given in the ElectronicForms™ and the corresponding Main-Bid. For transparency, the information submitted by a bidder in the ElectronicForms™ is made available to other bidders during the Online Public TOE. If it is found during the Online Public TOE that a bidder has not filled in the complete information in the ElectronicForms™, the TOE officer may make available for downloading the corresponding

Main-Bid of that bidder at the risk of the bidder. If variation is noted between the information contained in the ElectronicForms™ and the "Main-Bid", the contents of the ElectronicForms™ shall prevail. Alternatively, the Buyer organization reserves the right to consider the higher of the two pieces of information (e.g. price) for the purpose of short-listing, and the lower of the two pieces of information (e.g. price) for the purpose of payment in case that bidder is an awardee in that tender.

Typically, "Pass-Phrase" of the Bid-Part to be opened during a particular Public Online Tender Opening Event (TOE) is furnished online by each bidder during the TOE itself, when demanded by the concerned Tender Opening Officer.

Additionally, the bidder shall make sure that the Pass-Phrase to decrypt the relevant Bid-Part is submitted to PFC Consulting Ltd. in a sealed envelope before the start date and time of the Tender Opening Event (TOE).

There is an additional protection with SSL Encryption during transit from the Owner-end computer of a Contractor organization to the e-tendering server/ portal.

Public Online Tender Opening Event (TOE)

ETS offers a unique facility for "Public Online Tender Opening Event (TOE)". Tender Opening Officers, as well as, authorized representatives of bidders can simultaneously attend the Public Online Tender Opening Event (TOE) from the comfort of their offices. Alternatively, one/ two duly authorized representative(s) of bidders (i.e. Contractor organization) are requested to carry a Laptop with Wireless Internet Connectivity, if they wish to come to PFC Consulting Ltd. office for the Public Online TOE.

Every legal requirement for a transparent and secure "Public Online Tender Opening Event (TOE)", including digital counter-signing of each opened bid by the authorized TOE-officer(s) in the simultaneous online presence of the participating bidders' representatives, has been implemented on ETS.

As soon as a Bid is decrypted with the corresponding "Pass-Phrase" as submitted online by the bidder himself (during the TOE itself), salient points of the Bids (as identified by the Buyer organization) are simultaneously made available for downloading by all participating bidders. The tedium of taking notes during a manual "Tender Opening Event" is therefore replaced with this superior and convenient form of "Public Online Tender Opening Event (TOE)".

ETS has a unique facility of "Online Comparison Chart" which is dynamically updated as each online bid is opened. The format of the chart is based on inputs provided by the Buyer for each Bid-Part of a tender. The information in the Comparison Chart is based on the data submitted by the Bidders. A detailed Technical and/ or Financial Comparison Chart enhance Transparency. Detailed instructions are given on relevant screens.

ETS has a unique facility of a detailed report titled "Minutes of Online Tender Opening Event (TOE)" covering all important activities of "Online Tender Opening Event (TOE)". This is available to all participating bidders for "Viewing/ Downloading".

There are many more facilities and features on ETS. For a particular tender, the screens viewed by a Contractor will depend upon the options selected by the concerned Buyer.

Other Instructions

For further instructions, the Contractor should visit the home-page of the portal <https://www.tcil-india-electronictender.com>, and go to the **User-Guidance Center**

The help information provided through "ETS User-Guidance Center" is available in three categories – Users intending to Register / First-Time Users, Logged-in users of Buyer organizations, and Logged-in users of Contractor organizations. Various links are provided under each of the three categories.

Important Note: It is strongly recommended that all authorized users of Contractor organizations should thoroughly peruse the information provided under the relevant links, and take appropriate action. This will prevent hiccups, and minimize teething problems during the use of ETS.

SEVEN CRITICAL DO'S AND DON'TS FOR BIDDERS

Specifically for Supplier organizations, the following '**SEVEN KEY INSTRUCTIONS for BIDDERS**' must be assiduously adhered to:

1. Obtain individual Digital Signing Certificate (DSC or DC) well in advance of your first tender submission deadline on ETS
2. Register your organization on ETS well in advance of the important deadlines for your first tender on ETS viz 'Date and Time of Closure of Procurement of Tender Documents' and 'Last Date and Time of Receipt of Bids'. Please note that even after acceptance of your registration by the Service Provider, to respond to a tender you will also require time to complete activities related to your organization, such as creation of -- Marketing Authority (MA) [ie a department within the Supplier/ Bidder Organization responsible for responding to tenders], users for one or more such MAs, assigning roles to them, etc. It is mandatory to create at least one MA. This unique feature of creating an MA enhances security and accountability within the Supplier/ Bidder Organization.
3. Get your organization's concerned executives trained on ETS well in advance of your first tender submission deadline on ETS
4. For responding to any particular tender, the tender (ie its Tender Search Code or TSC) has to be assigned to an MA. Further, an 'Official Copy of Tender Documents' should be procured/ downloaded before the expiry of Date and Time of Closure of Procurement of Tender Documents. Note: Official copy of Tender Documents is distinct from downloading 'Free Copy of Tender Documents'. Official copy of Tender Documents is the equivalent of procuring physical copy of Tender Documents with official receipt in the paper-based manual tendering system.
5. Submit your bids well in advance of tender submission deadline on ETS (There could be last minute problems due to internet timeout, breakdown, et al)
6. It is the responsibility of each bidder to remember and securely store the Pass-Phrase for each Bid-Part submitted by that bidder. In the event of a bidder forgetting the Pass-Phrase before the expiry of deadline for Bid-Submission, facility is provided to the bidder to 'Annul Previous Submission' from the Bid-Submission Overview page and start afresh with new Pass-Phrase(s)
7. ETS will make your bid available for opening during the Online Public Tender Opening Event (TOE) 'ONLY IF' your 'Status pertaining Overall Bid-Submission' is 'Complete'. For your record, you can generate and save a copy of 'Final Submission Receipt'. This receipt can be generated from 'Bid-Submission Overview Page' only if the 'Status pertaining overall Bid-Submission' is 'Complete'.

NOTE:

While the first three instructions mentioned above are especially relevant to first-time users of ETS, the fourth, fifth, sixth and seventh instructions are relevant at all times.

Minimum Requirements at Bidder's End

Computer System having configuration with minimum Windows 7 or above, and
Broadband connectivity
Microsoft Internet Explorer 7.0 or above
Digital Certificate(s)

Technical Specifications – 3 Phase, 40 kVA UPS System

Part 1 GENERAL

1.1. SUMMARY

- A. This specification describes a three-phase, on-line, continuous operation, solid-state uninterruptible power supply (UPS). The UPS shall operate as an active power control system, working in conjunction with the building electrical system to provide power conditioning and on-line power protection for the critical loads.

1.2. DESCRIPTION

- A. The UPS shall consist of the following easy to repair modular rectifier/inverter sections.
- B. The UPS shall be provided with separate feeds for rectifier/inverter section and the static bypass switch.
- C. Modes of operation: The UPS shall operate as an on-line system in the following modes:
- i. *Normal*: The inverter and the rectifier shall operate in an on-line manner to continuously regulate the power to the critical load. The rectifier shall derive power from the AC input source and supply DC power to float charge the battery.
 - ii. *Battery*: Upon failure of the AC input source, the critical load shall continue being supplied by the main inverter without any switching. The inverter shall obtain its power from the battery. There shall be no interruption in power to the critical load upon failure or restoration of the AC input source.
 - iii. *Recharge*: Upon restoration of the AC input source, the UPS shall simultaneously recharge the battery and regulate the power to the critical load.
 - iv. *Bypass*: The static bypass switch shall be used for transferring the critical load to input supply without interruption. Automatic re-transfer to normal operation shall also be accomplished with no interruption in power to the critical load. The static bypass switch shall be fully rated and shall be capable of manual operation. The UPS shall be able to recharge the batteries while supplying full power to the load via the static bypass switch.
 - v. *Internal maintenance bypass*: The UPS shall be provided with an internal manual bypass to simplify the installation and shall be used for supplying the load directly from the mains supply, while the UPS is taken out for maintenance.
 - vi. *External maintenance bypass [Optional]*: The external maintenance bypass switch shall be used for supplying the load directly from the mains supply, if the UPS is to be replaced. An UPS input, output, and bypass switch shall be housed in the same low-voltage assembly. The bypass switch must be monitored by the UPS via an auxiliary contact. The maintenance bypass must be housed in a wall mounted low-voltage assembly that complements the appearance of the UPS.
- D. The UPS shall be provided with RS-232 signaling and WEB/SNMP integration. This system must provide a means for logging and alarming of all monitored points plus email notification.
- E. The UPS shall have nominal voltage of 3×400/230V (adjustable for 3×380/220V, 3×415/240V), 50Hz 3 and 4-wire + earth configurations.
- F. The UPS shall be compatible with all types of data centers, data rooms and facilities. Dedicated service to one specific environment shall not be acceptable.

1.3. STANDARDS

- A. Safety: EN50091-1-1 / IEC 62040-1-1
- B. Emissions: EN50091-2/IEC 62040-2
- C. Performance: EN/IEC 62040-3
- D. IEC 61000-3-2
- E. IEC 61000-3-3,

1.4. CLASSIFICATION

- A. Classification according to EN/IEC 62040-3: VFI-SS-112

1.5. SUBMITTALS

- A. Proposal Submittals
 - i. Bid system bill of materials
 - ii. Product catalogue sheets or equipment brochures
 - iii. Product guide specifications
 - iv. System single-line operation diagram
 - v. Floor layout
 - vi. Capacity data
 - vii. Piping connection drawing
 - viii. Installation guide
 - ix. Drawings for requested optional accessories
- B. Delivery Submittals
 - i. Installation manual, which includes instructions for storage, handling, examination, preparation, installation, and start-up of all systems.
 - ii. User manual, which includes operating instructions.
 - iii. As built equipment drawings.

1.6. QUALIFICATIONS

- A. Manufacturer experience: The manufacturer shall have a minimum of 20 years experience in the design, manufacture, and testing of UPS and cooling systems.
- B. ISO 9001 Certification: The manufacturer shall be ISO 9001 & 14001 certified. Certification assures that the vendor's quality control & environmental measures have been certified by an accredited registrar and meet internationally recognized standards.

1.7. ENVIRONMENTAL REQUIREMENTS:-

- A. Storage ambient temperature: 15°C to 40°C.
- B. Operating ambient temperature: 0°C to 40°C. 15°C to 25°C is ideal for batteries (above the battery lifetime is reduced).
- C. Relative humidity: 0 to 95%, non-condensing.
- D. Storage elevation: 0 to 15000m.
- E. Operating altitude with no derating: 0 to 1000m feet above sea level.
 - i. 1000 m. / 3000 ft.: 100% load
 - ii. 1500 m. / 4500 ft.: 95% load
 - iii. 2000 m. / 6000 ft.: 91% load
 - iv. 2500 m. / 8000 ft.: 86% load
 - v. 3000 m. / 10,000 ft.: 82% load

PRODUCT

2.1. STATIC UPS

F. GENERAL

- i. The UPS shall be housed in a free standing enclosure. The enclosure shall be designed to blend into an IT environment. The cabinet shall be equipped for fork truck lifting. The UPS cabinet shall be painted with the manufacturer's standard color, black. All service and installation access shall be from the front and top
- ii. The UPS shall be in a self contained cabinet and comprising 40kVA power section; Bypass Static Switch; Battery for standard run time and interface LCD display all mounted in a separate cabinet. The UPS shall permit user installable and removable battery units. The power section shall be of the Double Conversion On-Line topology with power factor corrected inputs.
 1. The UPS shall be sized for 40kVA and 32 kW load.
 2. The UPS battery shall be sized for 40 kVA at a power factor of 0.8 for 30 minutes.
- iii. The UPS shall have a short circuit withstand capability of 30kA

G. SYSTEM INPUT

- i. Nominal Input voltage rating: 3×400/230V (adjustable for 3×380/220V or 3×415/240V)
- ii. Input Voltage range: 304-477V
- iii. Earthing principle: [TN-S] [TN-C-S] [TN-C] [TT] or [IT].
- iv. Input frequency: 40-70 Hz (auto sensing)
- v. Input power factor: 0.98
- vi. Magnetizing inrush current: NONE, if optional input isolating transformer is installed then 500% of nominal input current for less than one cycle
- vii. Input current distortion with no additional filters:
- viii. < 5% THD at 100% load
- ix. Power walk-in/Soft-Start: Shall be linear from 0 to 100% of the load over a 15-second period

H. SYSTEM OUTPUT

- i. Nominal Output voltage rating: 3×400/230V.
- ii. Earthing principle: [TN-S] [TN-C-S] [TN-C] [TT] or [IT].
- iii. Output voltage regulation for steady state and transient variations (at default parameter settings):
 1. ± 1% steady state for a static 100% balanced load.
 2. ± 1% steady state for a static 100% unbalanced load.
 3. ± 5% for a 0 to 100% load step.
- iv. Max. Voltage transient recovery time: 50 milliseconds to nominal.
- v. Output frequency regulation:
 1. Synchronized to mains over the range of 47-53Hz or 57-63Hz in normal operation
 2. 50 Hz ± 0.1 Hz in battery operation.
- vi. Output voltage harmonic distortion:
 1. <2% THD maximum and 1% single harmonic for a 100% linear load
 2. <5% THD maximum for a 100% non-linear load
- vii. Overload capability:
 1. 150% for 30 seconds in normal operation.
 2. 110% continuous in bypass operation
 3. 800% for 500 milliseconds in bypass operation

- viii. Phase displacement:
 - 1. 20 degrees \pm 1 degree for balanced load.
 - 2. 20 degrees \pm 1 degree for 50% unbalanced load.
 - 3. 20 degrees \pm 3 degrees for 100% unbalanced load.
- ix. Output Power Factor Rating: For loads exhibiting a power factor of 0.5 leading to 0.5 lagging, no derating of the UPS shall be required.
- x. Short circuit withstand: The UPS must withstand a bolted-fault short circuit on the output without damage to the UPS module.
- xi. System AC-to-AC efficiency 100% load: >95.5%
- xii. System AC-to-AC efficiency 50% load: >95.5 %
- xiii. Acoustical noise: dB(A) of noise, typically, < 70 db measured at 1 meter from the operator surface

I. COMPONENTS

i. Rectifier

- 1. Each UPS power module shall include an active power factor corrected, insulated Gated Bipolar Transistor (IGBT) rectifier.
- 2. DC buss voltage shall be \pm 192Vdc nominal.
- 3. The battery charging shall keep the DC bus float voltage of \pm 220v, \pm 1%
- 4. The DC buss voltage shall be compensated against temperature variations (Battery Temperature Compensation) to always maintain optimal battery float charging voltage for temperature excursions above or below 25°C. Temperature compensation rate shall be 320mV/°C for ambient temperatures > 20°C and 0mV/°C for ambient temperatures < 20°C.
- 5. DC ripple voltage shall be less than \pm 1% of nominal with no battery connected.
- 6. Input power factor shall be 0.98 lagging at 100% load with out the use of passive filters. Rectifier shall employ electronic waveform control technology to maintain the current sinusoidal.
- 7. Pulse Width Modulation (PWM) current control shall be used. Digital Signal Processors (DSP) shall be used for all monitoring and control tasks. Analog control is not acceptable.
- 8. Reflected input current Total Harmonic Distortion (THD) shall not exceed 5% at 100% load.
- 9. Input voltage window: 304-477V.
- 10. Typical battery recharges time per IEEE 485.

ii. Batteries

- 1. Standard battery technology shall be Valve Regulated Lead Acid (VRLA) with 30 minutes backup on each 40 kVA at 0.8 power factor and 1.7 ECV.

iii. Inverter

- 1. The inverter shall consist of fast switching IGBT power module.
- 2. Inverter shall be PWM controlled using DSP logic. Analog control shall not be acceptable.
- 3. The inverter modules shall be rated for an output power factor at 0.8.
- 4. Nominal output voltage shall be 3x400/230V and adjustable for 3x380/220V or 3x415/240V, 50Hz, L1,L2,L3,N,PE.
- 5. Efficiency of each module at full load: > 94.5%
- 6. Output Voltage Total Harmonic Distortion at full load:
 - Less than 2% for 100% resistive load.
 - Less than 5% for computer load as defined by EN50091-3/IEC 62040-3.

7. Output voltage regulation
 - Static: Less than 1% at full linear load.
 - Dynamic: 5% at 100% step load.
8. Output frequency: 50Hz free running.
9. Crest factor: Unlimited but regulates it down to 2.7.
 - a. Remote Emergency Power Off (EPO) shall be standard (wall switch and wiring shall be provided by the electrical contractor).

iv. Static Bypass Switch

1. The static switch shall consist of fully rated Silicon Controlled Rectifiers (SCRs). Part rated SCRs with a wrap around contactor are not acceptable.
2. The static bypass switch shall automatically transfer the critical load to bypass input supply without interruption after the logic senses one of the following conditions:
 - Inverter overload beyond rating.
 - Battery runtime expired and bypass available.
 - Inverter failure.
 - Fatal error in control system.
3. The static bypass switch shall automatically retransfer from bypass to the inverter, when one of the following conditions occurs:
 - After an instantaneous overload-induced transfer has occurred and the load current has returned to less than 100% of the system rating.
 - The inverter is active (on).
4. The static bypass switch shall be equipped with a manual means of transferring the load to bypass and back to inverter.
5. If more than 10 transfer from and to inverter occur in a 10 minutes period, the load shall be locked on static bypass. An alarm communicating this condition shall be annunciated.

J. MECHANICAL

1. The UPS power section, Static Bypass Switch, internal manual bypass switch and the VRLA batteries shall be housed in a free standing enclosure in a matching black color having the following specifications:
 - Colour finish. Black
 - Dead front construction
 - Caster fitted for mobility. Leveling feet shall be supplied as standard.
 - The cable entry shall be from the bottom on the back of the UPS.
 - Ingress level of min. IP20.

K. 2.9 DISPLAY, CONTROLS AND ALARMS

- i. A microprocessor controlled display unit shall be located on the front of the system. The display shall consist of an alphanumeric display with backlight, an alarm LED, and a keypad consisting of pushbutton switches.
- ii. The following metered data, shall be available on the alphanumeric display:
 1. Year, Month, Day, Hour, Minute, Second of occurring events
 2. Input AC Voltage
 3. Output AC voltage
 4. Output AC current
 5. Input Frequency
 6. Battery voltage
 7. Highest Internal Battery temperature

- iii. The display unit shall allow the user to display an event log of all active alarms and of the 64 most recent status and alarm events.

The following minimum set of alarm conditions shall be available:

1. Static bypass switch on
2. EPO Active
3. Mechanical bypass activated
4. External bypass switch (Q3) activated
5. Battery discharged
6. Return from low battery
7. Low battery
8. Load not powered from UPS
9. UPS in bypass
10. Runtime calibration aborted
11. Runtime calibration started
12. Runtime calibration complete
13. Battery self test aborted
14. Battery self test started
15. Battery self test completed
16. Number of battery modules decreased
17. Number of battery modules increased
18. Fan fault
19. SBS fault
20. System not in sync.
21. Bypass not available, frequency/voltage out of range
22. Mains voltage/frequency out of range
23. Site wiring fault
24. Low battery voltage shut down
25. XR battery breaker or fuse open
26. Defective battery detected
27. Runtime is below alarm threshold
28. Load is above alarm threshold
29. Battery over-voltage warning
30. Battery over-temperature warning
31. Emergency power supply fault
32. Output overloaded

- iv. The following controls or programming functions shall be accomplished by use of the display unit. Pushbutton membrane switches shall facilitate these operations.

1. Silence audible Alarm
2. Set the alphanumeric display language
3. Display or set the date and time
4. Enable or disable the automatic restart feature
5. Transfer critical load to and from static bypass
6. Test battery condition on demand
7. Set intervals for automatic battery tests
8. Adjust set points for different alarms
9. Program the parameters for remote shutdown.

- v. The following shall make up the UPS front panel user interface.
1. Indicating LED's
 - Load On When Green, this LED indicates the load is being supported by the UPS output
 - On Battery When Yellow, this LED indicates the UPS is running from Battery power
 - Bypass When Yellow, this LED indicates the load is being supported by static bypass/mechanical bypass
 - Fault When Red, this LED indicates there is a fault condition present in the UPS.
 2. Push Button User Controls
 - Up Arrow
 - Down Arrow
 - Help Key
 - Escape Key
 - Enter Key
- vi. Potential Free (Dry) Contacts
1. The following potential free contacts shall be available on an optional relay interface board:
 - Normal Operation
 - Battery Operation
 - Bypass Operation
 - Common Fault
 - Low Battery
 - UPS Off
- vii. For purposes of remote communications with the UPS the following shall be available and contained within the UPS on a removable, "hot swappable" "smart slot" interface card:
1. RJ-45 Interface port for remote communications with a network via web browser or SNMP.
 2. Environmental monitoring feature, capable of locally monitoring temperature and humidity as well as one additional generic set of user determined dry contacts capable of taking an input signal.

Part 2 ACCESSORIES

- A. SERVICE BYPASS PANEL (SBP)
- i. The service bypass panel shall provide power to the critical load bus from the bypass source, during times where maintenance or service of the UPS is required. The SBP shall provide a mechanical means of complete isolation of the UPS from the electrical wiring of the installation. The SBP shall be constructed in a free-standing or wall-mounted IP20 enclosure unless otherwise stated in this specification.
 - ii. As a minimum, the SBP shall contain the following features and accessories:
 1. Switches of the appropriate size and withstand rating (30 kA), for the system.
 2. Minimum 1 NO/NC auxiliary contact for the purpose of relaying status information of the manual maintenance bypass switch to the UPS in order to make sure that the UPS will go/be in static bypass operation so the UPS is not damaged.
 3. The SBP shall be CE marked according to at least EN/IEC60439.

B. SOFTWARE AND CONNECTIVITY

- i. The Ethernet Web/SNMP Adaptor shall allow one or more network management systems (NMS) to monitor and manage the UPS in TCP/IP network environments. The management information base (MIB) shall be provided in DOS and UNIX "tar" formats. The SNMP interface adaptor shall be connected to the UPS via the RS232 serial port on the standard communication interface board.
- ii. Unattended Shutdown
- iii. The UPS, in conjunction with a network interface card, shall be capable of gracefully shutting down one or more operating systems during when the UPS is on reserve mode.
- iv. The UPS shall also be capable of using an RS232 port to communicate by means of serial communications to gracefully shut down one or more operating systems during an on battery situation.

C. REMOTE UPS MONITORING

- i. The following three methods of remote UPS monitoring shall be available:
 1. Web Monitoring: Remote monitoring shall be available via a web browser such as Internet Explorer.
 2. RS232 Monitoring: Remote UPS monitoring shall be possible via either RS232 or contact closure signals from the UPS.
 3. Simple Network Management Protocol (SNMP): Remote UPS Monitoring shall be possible through a standard MIB II compliant platform.

D. SOFTWARE COMPATIBILITY

- i. The UPS manufacturer shall have available software to support graceful shutdown and or remote monitoring for the following systems:
 - a. Microsoft Windows 95/98/XP
 - b. Microsoft Windows NT 4.0 SP6/2000
 - c. OS/2
 - d. Netware 3.2 – 5.1
 - e. MAC OS 9.04, 9.22, 10
 - g. Digital Unix/True 64
 - h. SGI 6.0-6.5
 - j. SCO UNIX
 - k. SVR4 2.3, 2.41
 - m. SCO Unix Ware 7.0 - 7.11
 - n. SUN Solaris 2.6-2.8
 - o. SUN OS 4.13, 4.14
 - p. IBM AIX 4.3x-4.33g, 5.1
 - q. HP-UX 9.x-11.i

Part 3 EXECUTION

A. FACTORY ASSISTED START-UP

If a factory assisted UPS start-up is requested, factory trained service personnel shall perform the following inspections, test procedures, and on-site training:

- A. Visual Inspection:
 - Inspect equipment for signs of damage.
 - Verify installation per manufacturer's instructions.
 - Inspect cabinets for foreign objects.
 - Inspect Battery Units.
 - inspect Power Module(s).

B. Mechanical Inspection:

1. Check all UPS and external maintenance bypass cabinet internal power wiring connections.
2. Check all UPS and external maintenance bypass cabinet terminal screws, nuts, and/or spade lugs for tightness.

C. Electrical Inspection:

1. Verify correct input and bypass voltage.
2. Verify correct phase rotation of all mains connections.
3. Verify correct UPS control wiring and terminations.
4. Verify voltage of all battery modules.
5. Verify neutral and ground conductors are properly landed.
6. Inspect external maintenance bypass switch for proper terminations and phasing.

D. Site Testing:

1. Ensure proper system start-up.
2. Verify proper firmware control functions.
3. Verify proper firmware bypass operation.
4. Verify proper maintenance bypass switch operation.
5. Verify system set points.
6. Verify proper inverter operation and regulation circuits.
7. Simulate utility power failure.
8. Verify proper charger operation.
9. Document, sign, and date all test results.

- E. On-Site Operational Training: During the factory assisted start-up, operational training for site personnel shall include key pad operation, LED indicators, start-up and shutdown procedures, maintenance bypass and AC disconnect operation, and alarm information.

4.2 MANUFACTURER FIELD SERVICE

- A. Worldwide service: The UPS manufacturer shall have a worldwide service organization Available, consisting of factory trained field service personnel to perform start-up, preventative maintenance, and service of the UPS system and power equipment. The service organization shall offer 24 hours a day, 7 days a week, 365 days a year service support.
- B. Replacement parts: Parts shall be available through the worldwide service organization 24 hours a day, 7 days a week, 365 days a year. The worldwide service organization shall be capable of shipping parts within 4 working hours or on the next available flight, so that the parts may be delivered to the customer site within 24 hours.

4.3 MAINTENANCE CONTRACTS

A complete offering of preventative and full service maintenance contracts for the UPS system and the battery system shall be available.