

# **Life Insurance Corporation Of India**

East Central Zonal Office, Patna

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**TENDER NO: LICI/ECZO/Engg/23-24/19 Dated 12.09.2023** 

# **BID-II**

E-Tender for Annual Rate Contract for Supply, Installation, Testing & Commissioning of Online UPS system and CAMC of UPS at various offices under Divisional Offices under East Central Zonal Office, Patna FY 2023-24

All the documents (self attested) shall be uploaded in portal only. No any document shall be submitted in physical form except original DD/B.G. / Pay Order/ etc in connection of EMD & tender Processing fee

# TECHNICAL BID (BID II)

**ADDL. EXECUTIVE DIRECTOR** 

LIFE INSURANCE CORPORATION OF INDIA

**EAST CENTRAL ZONAL OFFICE** 

**ENGINEERING DEPARTMENT** 

"JEEVAN DEEP", EXHIBITION ROAD, PATNA – 1

CONTRACTOR CHIEF ENGINEER

EAST CENTRAL ZONAL OFFICE, ENGG. DEPTT. (4<sup>TH</sup> R) "JEEVAN DEEP", EXHIBITION ROAD, PATNA – 800 01 PHONE: 0612-2501118/2503014/2501103, E-mail: ecz\_engg@licindia.com

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LIFE INSURANCE CORPORATION OF EAST CENTRAL ZONAL OFFICE, ENGG. DEPTT. (4<sup>TH</sup> R) "JEEVAN DEEP", EXHIBITION ROAD, PATNA – 800 01 PHONE: 0612-2501118/2503014/2501103, E-mail: ecz\_engg@licindia.com
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# **CONTENTS OF TECHNICAL BID**

Sub: E-Tender for Annual Rate Contract for Supply, Installation, Testing & Commissioning of Online UPS system and CAMC of UPS at various offices under Divisional Offices under East Central Zonal Office, Patna FY 2023-24

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Ref: ECZO/Engg/UPS/2023-24.

M/s.

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Dt.

### LETTER TO CONTRACTOR FROM ADDL. EXECUTIVE DIRECTOR

Dear Sir/s,
Re E-Tender for Annual Rate Contract for Supply, Installation, Testing & Commissioning of Online UPS system and CAMC of UPS at various offices under Divisional Offices under East Central Zonal Office, Patna FY 2023-24
1. We hereby publish the ITEM RATE TENDER on e-tendering Portal (Website) www.tenderwizard.com/LIC in Electronic mode hereinafter referred as "e Tendering" and TENDER will be hereunder called as "e Tender". The e-tender published online through above portal (website) consisting of standard tender conditions, specifications, schedule of quantities, drawings (if any) for above referred work. Please note that copy of the above e-tender can be downloaded from above portal (website) and should be mandatorily submitted in Online Electronic Mode hereinafter referred as "Online Offer". The submission of Online offer duly Encrypted & Digitally signed on above portal should be in prescribed Electronic Forms (Online) available on above portal for respective tender in Online Envelope(s) on or before As per the key Dates mentioned in the Tender Notice in this document and online portal for above tender.
2. The bidders should submit required
a. Tender Fee of Rs.500/- (non-refundable)+ GST as applicable in the form of Demand Draft in favour of "Life Insurance Corporation of India" payable at Kolkata/Cash (to be deposited in Cash Counter of LICI and MR to be obtained) of LIC.
b. Earnest Money Deposit of Rs.1,02,000/- (Rupees One lakh two Thousand only) in the form of Demand Draft/Pay Order/Banker's Cheque/ NEFT in favour of "Life Insurance Corporation of India" payable at Patna.
Details for payment through E-payment mode directly to LIC account is given below,

LIFE INSURANCE CORPORATION OF

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EAST CENTRAL ZONAL OFFICE, ENGG. DEPTT. (4<sup>TH</sup> R) "JEEVAN DEEP", EXHIBITION ROAD, PATNA – 800 01



Name of Bank - Axis Bank Ltd.

**Branch - Main Branch, Patna** 

Account No. - 142010200012704

**IFSC No. UTIB0000142** 

**Account Type - Current** 

c. In case of DD/Pay order, the scanned copy of the Demand Draft/ Pay Order of Tender Fee and Demand Draft/ Pay Order/ Banker's Cheque/ Bank Guarantee of EMD shall be uploaded in BID. In addition to that physical submission of the DD/Pay Order should be submitted to the Addl. Executive Director, East Central Zonal Office, "JEEVAN DEEP", EXHIBITION ROAD, PATNA – 800 01 and will be received at the office of Addl. Executive Director at above address on or before as per the key dates mentioned in the Tender program.

- d. The e-Tenders will be opened at as per the key dates in the presence of contractors or accredited representatives, who wish to attend the online Tender Opening process. The bidders can view the Tender opening details through their respective log in Ids on the above mentioned e-tender portal (Website). The tenderer should ensure that their tender is received Online Electronically on or before the due date and time as specified in "Key Dates" in the tender document and above mentioned portal (website). Please note that above eTendering system is an automatically time locked system which will be locked immediately as soon as due date and time is over and will not accept any offer after that. So, the tenderers are strictly advised to do their process well before the due date and time to avoid any such instances.
- 3. An annexure for guidelines to submit tenders on Electronic Tendering Systems (ETS) is attached in the tender document. The tenderers are advised to carefully read the above document for understanding of eTendering system. The above annexure will supersede all the terms and conditions mentioned for submission of tender in document.
- 4. The Life Insurance Corporation of India is not bound to accept the lowest tender and reserves the right to reject any or all tenders without assigning any reason thereof.

Yours faithfully,

Addl. Executive Director



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## LETTER FROM CONTRACTOR TO ADDL. EXECUTIVE DIRECTOR

To,
The Addl. Executive Director
L.I.C. of India
ECZO, 4th Floor,
"JEEVAN DEEP",
EXHIBITION ROAD,
PATNA – 800 01
Dear Sir,

Re E-Tender for Annual Rate Contract for Supply, Installation, Testing & Commissioning of Online UPS system and CAMC of UPS at various offices under Divisional Offices under East Central Zonal Office, Patna FY 2023-24

1) Having examined in details, the tender documents along with Scheduled of quantities relating to the above works & having acquired the requisite information relating thereto as affecting the tender invited by you on behalf of the Life Insurance Corporation of India. I/We, the undersigned hereby offer to execute and maintain the proposed works on item rate basis in strict accordance with the contract conditions and specifications for the sum

or such other sums as may be ascertained in accordance with the said conditions.

- 2) I/We, undertake to complete and deliver the whole of the works within the time stipulated in Appendix to Conditions of Contract under the obligation to pay the sum as stated in the Appendix to the General Conditions for every day/week that the works shall remain incomplete after the expiry of the aforesaid date as liquidated and ascertained damages as compensation subject to the Conditions of Contract relating to an extension of time.
- 3) I/We have already submitted the Earnest Money Deposit in physical form. I/We attach herewith scanned copy of EMD of Rs.1,02,000/- (Rupees One lakh two Thousand only in crossed demand draft Pay Order/ Banker's Cheque in favour of "Life Insurance Corporation of India" payable at Patna or NEFT receipt/UTR No. of e-payment transaction.
- 4) In the event of the tender being accepted, I/We, agree to the retention of my/our EMD as a part of Security Deposit and the balance amount of Security Deposit to be recovered at 7.5% of Gross value of work done from my/our Running Account Bills.
- 4) I/We, note that the Earnest Money Deposit would be refunded to me/us.



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On expiry of the validity of the tender or earlier at the discretion of Addl. Executive Director in case my/our tender is not accepted and

In case my/our tender is accepted, after I/We, furnish Bank Guarantee as mentioned above.

5) I/We, agree,

In case my/our tender is withdrawn before expiry of the validity period or before the issue of letter of acceptance or backed out after issuing Acceptance Letter, whichever is earlier, or makes any modifications in the terms and conditions of the tender which are not acceptable to the Department, in such case 100% of the EMD will be forfeited by the department.

In case of forfeiture of Earnest money as prescribed above 5(a), the tenderer shall not be allowed to participate in the re-tendering process of the work.

Yours faithfully,

(Signature of the contractor with official seal)

NAME OF THE PARTNER OF THE FIRM

OR

NAME OF PERSON HAVING POWER OF

ATTORNEY TO SIGN THE CONTRACT

(CERTIFIED COPY OF THE POWER OF

ATTORNEY SHOULD BE ATTACHED)



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# **CONDITIONS OF E-TENDERING**

Re: E-Tender for Annual Rate Contract for Supply, Installation, Testing & Commissioning of Online UPS system and CAMC of UPS at various offices under Divisional Offices under East Central Zonal Office, Patna FY 2023-24

These conditions will over-rule the conditions stated in the tender documents, wherever relevant and applicable.

#### A. Registration of contractors on E-tendering Portal:-

All Contractors intending to participate in the tenders process online are required to get registered on the Electronic Tendering System on the Portal <a href="https://www.tenderwizard.com/LIC">https://www.tenderwizard.com/LIC</a> more details, please see the information on the Registration info link on the home page.

#### **B. Obtaining a Digital Certificate:**

- 1. The Bids submitted online should be encrypted and signed electronically with a Digital Certificate to establish the identity of the bidder bidding online. These Digital Certificates are issued by the Controller of Certifying Authorities, Government of India.
- **2.** For DSC related issues please contact to our Help desk No. **080-4048200/121/133/140**, **9686115304**, **9686115323**

Address: Antares Systems Limited.

E-Tender Help Desk,

#24, Sudha Complex,

3<sup>rd</sup> Stage, 4<sup>th</sup> Block,

Basaveshwaranagara,

Bengaluru - 560079.

**C.**The contractors may obtain Class-III digital certificate from any Certifying Authority or Sub-certifying Authority authorized by the Controller of Certifying Authorities or may obtain information and application format and documents required for the issue of digital certificate from.



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- **D.** Bid for a particular tender may be submitted online using the digital certificate, which is used to encrypt the data and sign the hash during the stage of bid preparation & hash submission. In case, during the process of a particular tender, the user looses his digital certificate (be it due to virus attack, hardware problem, operating system or any other problem) he will not be able to submit the bid online. Hence, the users are advised to keep a back up of the certificate and also keep the copies at safe place under proper security (for it's use in case of emergencies).
- E. If the digital certificate issued to the authorized user of a firm is used for signing and submitting a bid, it will be considered equivalent to a no-objection certificate/ power of attorney/ lawful authorization to that User. The firm has to authorize a specific individual through an authorization certificate signed by all partners to use the digital certificate as per Indian Information Technology Act 2000. Unless the certificates are revoked, it will be assumed to represent adequate authority of the user to bid on behalf of the firm in Life Insurance Corporation of India, Patna tenders as per Information Technology Act 2000. The digital signature of this authorized user will be binding on the firm.
- **F** In case of any change in the authorization, it shall be the responsibility of management/ partners of the firm to inform the certifying authority about the change and to obtain the digital signatures of the new person / user on behalf of the firm / company. The procedure for application of a digital certificate however will remain the same for the new user.
- **G.** The same procedure holds true for the authorized users in a private/ public limited company. In this case, the authorization certificate will have to be signed by the directors of the company.

#### H Set up of machine:

In order to operate on the electronic tender management system, the user's machine is required to be set up. The machine must have running XP service Pack 3 or higher version of Windows like Vista or Window 7. Also need to install Mozilla Fire fox web browser and latest Version of Java. This can also be downloaded from the portal <a href="https://www.tenderwizard.com/LIC">https://www.tenderwizard.com/LIC</a>

### I Online Viewing of Detailed Notice Inviting Tenders:

The contractors can view the detailed N.I.T and the time schedule (Key Dates) for all the tenders floated through the electronic tendering system on the portal <a href="https://www.tenderwizard.com/LIC">https://www.tenderwizard.com/LIC</a> For Tendering related issues please contact to Helpdesk No. 08040482000/121/133/140

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#### J Download of Tender Documents:

The tender documents can be downloaded from the Electronic Tendering System through the Portal https://www.tenderwizard.com/LIC

- **K Key Dates:** The contractors are strictly advised to follow dates and times as indicated in the Notice Inviting Tenders. The date and time will be binding on all contractors. All online activities are time tracked and the system enforces time locks that ensure that no activity or transaction can take place outside the start and end dates and the time of the stage as defined in the Notice Inviting Tenders.
- **L Submission of bids** will be preceded by submission of the digitally signed bid seal (Hash) as stated in the time schedule (Key Dates) of the Tender.

#### M Generation of Super Hash:

After the submission of Bids (Hash) by the Contractors, the bidding round will be closed and a digitally signed Super Hash will be generated by the authorized officers of Life Insurance Corporation of India. This is equivalent to sealing the tender box.

#### N Submission of actual online bids:

Contactors have to submit their encrypted bids online for which they generated the hash at the stage of hash generation & submission after the generation of Super Hash. The process is required to be completed within the date and time as stated in the Notice Inviting Tenders (Key Dates). The electronic bids of only those contactors who have submitted their bid seals (Hashes) within the stipulated time, as per the tender time schedule (Key Dates), will be accepted by the system. A contractor who does not submit his bid seal (Hash) within the stipulated time will not be allowed to submit his bid.

Note: - Bidders participating in e-tendering shall check the validity of his/ her Digital Signature Certificate before bidding in the Tenders floated online at e-tendering portal i.e. https://eprocurement.synise.com/LIC

- a) No alterations or additions are to be made by the tenderer to the text or the Schedule of these tender papers. Any tender which proposes any alterations to any of the condition/s laid down or which proposes any other conditions of any description whatsoever is liable to be rejected.
- b) The tenderer is required to check the numbers of the pages and should any be found missing or in duplicate, or the figure or writing indistinct, he must inform the Addl. Executive Director / Issuing Officer at once and have the same rectified. Should the tenderer be in doubt about the precise meaning of any item or figure, for any reason whatsoever, he must inform Addl. Executive Director in



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order that the correct meaning may be decided upon before the date for the submission of the tender.

- c) No liability whatsoever will be admitted nor claim allowed in respect of errors in the submitted tender due to missing / duplicate pages, indistinct writing or any other error in the tender documents which should have been rectified in the manner described above.
- d) Tenderer should note that tender should remain open for consideration for a minimum period of SIX MONTHS from the date fixed for the receipt of tenders.
- e) The Life Insurance Corporation of India reserves the right to accept any tender or to accept tenders in part; to reject any or all tenders without assigning reasons thereof.

### **KEY DATES**

Bid No.	LICI/ECZO/Engg/2023-24/19
Description of Works	E-Tender for Annual Rate Contract for Supply, Installation, Testing & Commissioning of Online UPS system and CAMC of UPS at various offices under Divisional Offices under East Central Zonal Office, Patna FY 2023-24
Estimated Cost	Rs 50,84,400.00
Tender fee	Rs.500 + GST 18%= Rs. 590.00
Up loading of tender	On 12.09.2023
Sale Period (Downloading)	up to 23.59 Hrs on 04/10/2023
Online Bid submission closing date & time	up to 23.59 Hrs on 04/10/2023
On line Submission of EMD & Tender Cost closing date & time	Till 23:59 Hrs. on 04/10/2023
Manual submission of EMD, Tender processing fee if paid through DD/MR	up to 15.00 Hrs on 05/10/2023
Opening of BID-I & Bid II ( only for vendors who have deposited Tender fee and EMD)	At 15:30 Hrs. on 05/10/2023
Opening of BID-III	To be intimated later date for eligible bidder



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#### INTERPRETATIONS:

1.1 In construing these Conditions, the Specifications, the Priced Schedule of Quantities, Tender and Agreement, the following words shall have the meanings herein assigned to them except where the subject or context otherwise requires:

"Employer" shall mean THE LIFE INSURANCE CORPORATION OF INDIA and his (their) heirs, legal representatives, assignees and successors.

"Addl. Executive Director" shall mean the person occupying the post of head of the Zonal Engineering Department of the Corporation.

"Corporation's Engineers" shall mean such Deputy Addl. Executive Directors, Superintending Engineers and/or Executive Engineers of the Corporation, who shall from time to time be appointed by the Addl. Executive Director for supervising the work carried out by the Contractor or for any purpose in connection therewith:

The term "Site Engineer" shall mean the person appointed and paid by the Employer, acting under the order of the Corporation's Engineer to superintendent the work.

The Contractor shall mean the individual, firm or company whether incorporated or not, who is awarded the contract & shall include the legal representative of such individual or the persons composing such firm or company or the successors of such individual, firm or company & the permitted assignees of such individual, firm or company.

The "Site" shall mean the lands/buildings and/or other places on, in, into or through which work is to be executed under the contract or any adjacent land, path or street which may be allotted or used for the purpose of carrying out the contract.

"This Contract" shall mean the Articles of Agreement, these Conditions, the General Instructions to Contractor, the General Preambles to Schedule of Quantities, Special Conditions, the priced Schedule of Quantities, the Specifications, the Appendices, the Drawings and other related correspondence.

"Act of Insolvency" shall mean any act of insolvency as defined by the Presidency Towns Insolvency Act, or the Provincial Insolvency Act or any amending Statute.

"Notice in Writing" or written notice shall mean a notice in written, typed or printed characters, sent (unless delivered personally or otherwise proved to have been received) by registered post to the last known private or business address or registered office of the addressee and shall be deemed to have been received when in the ordinary course of post it would have been delivered.

Words importing persons include Firms and Corporations, words importing the singular only also include the plural and vice versa where the context so requires.



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The titles of the Clauses shall not affect or alter the meaning of Clauses and are solely for the purpose of facilitating reference.

1.13 The following abbreviations shall be followed for the designations of various LIC Officers:

#### **DESIGNATIONS**

#### **ABBREVIATIONS**

Executive Director (Engineering)	E.D.(E)
Additional Executive Director (Engineering	A.E.D.(E)
Zonal Manager	Z.M.
Chief Engineer	C.E.
Chief Architect	C.A.
Deputy Chief Architect	D.C.A.
Deputy Addl. Executive Director	Dy.C.E.
Superintending Engineer	S.E.
Senior Architect	S.A.
Executive Engineer	E.E.
Deputy Senior Architect	D.S.A.
Asstt. Secretary	A.S.

- 1.14 Wherever the words "approved", "directed", "as required", "selected" or words of like effect are used, it is to be understood that the approval/direction, requirement or selection of the Corporation's Engineer are intended unless otherwise specified.
- 1.15 The words "as described" shall mean the description in the Special Conditions, Specifications, General Instructions, Drawings etc. of this tender.
- 1.16 The words "allow" shall mean that the Contractor shall include in his rates for the particular matter referred to.
- 1.17 "Day Work" shall mean items of labour and/or materials which in the opinion of the Corporation's Engineer are not capable of being evaluated by the accepted method of measurement and analysis.



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#### 2. SCOPE OF CONTRACT:

2.1 The Contractor shall carry out and complete the works in every respect in accordance with this Contract and in accordance with the directions and to the satisfaction of the Corporation's Engineer. The Corporation's Engineer may issue further drawings and/or written instructions, details, directions and explanation in regard to:

The variation or modification of the Design, quality of works or the addition or omission or substitution of any work;

Any discrepancy in the Drawings or between the Schedule of Quantities and/or Drawings and/or Specifications;

The removal from the site of any materials brought thereon by the Contractor and the substitution of any other material thereof;

The removal and/or re-execution of any work executed by the Contractor;

The dismissal from the work of any persons employed thereupon;

The opening up for inspection of any work covered thereupon;

The amending and making good of any defects under relevant Clause giving details of defects after completion.

The Contractor shall forthwith comply with and duly execute all works comprised in such Instructions subject to the provisions of relevant specific conditions of the Contract. In the event of any dispute or difference of opinion the contractor shall refer the matter within 7 (seven) days of the issue of such instruction to the Addl. Executive Director whose decision shall be final & binding.

#### DISCREPANCIES:

If there are varying or conflicting provisions made in any one document forming part of Contract, the Addl. Executive Director shall be the deciding authority with regard to the intention of the document and his decision shall be final and binding on the contractor.

The several documents forming the Contract are to be taken as mutually explanatory of one another, and the order of precedence shall be as follows;

Special conditions

General preambles to schedule of quantities

General instructions

Conditions of contract



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In case of discrepancies between the Schedule of Quantities, the specifications and/or drawings the following order of precedence shall be observed

Description in Schedule of Quantities

Specifications of relevant Trade

Drawings; detailed drawings shall be followed in preference to small scale drawings and figured dimension in preference to scale.

Indian Standard Specifications of 'BIS'

#### 4. DRAWINGS AND SCHEDULE OF QUANTITIES:

Two complete sets of the Drawings and Specifications and Schedule of Quantities shall be furnished by the employer to the contractor. Two copies of the additional Drawings, if any, shall be furnished within such time as the Addl. Executive Director may consider reasonable which may be necessary for execution of any part of the work. Such copies shall be kept on the work site and the CE and his representatives shall at all reasonable times have access to the same and they shall be returned to the EE by the Contractor on completion of the contract.

This Contract and the signed Drawings, Specifications and Schedule of Quantities shall remain in the custody of the Employer.

#### 5. CONTRACTOR TO PROVIDE EVERYTHING NECESSARY FOR EXECUTION OF WORK:

Contractor shall provide everything necessary for the proper execution of the work according to the intent & meaning of the Drawings, Priced Schedule of Quantities and Specifications taken together, whether the same may or may not be explicitly shown or described therein provided that the same can reasonably be inferred there from and if the Contractor finds any discrepancy therein he shall immediately and in writing refer the same to the CE whose decision shall be final and binding on the Contractor.

The Contractor shall supply, fix and maintain at his cost during the execution of any work all the necessary Centering, Scaffolding, Staging, Planking, Timbering, Strutting, Shoring, Pumping, Fencing, Boarding, Watching and Lighting by night as well as by day, required not only for the proper execution and protection of the said work but also for the protection of the Public and the safety of any adjacent Roads, Streets, Cellars, Vaults, Ovens, Pavements, Walls, Houses, Buildings and all other erections, matters or things and the Contractors shall take down and remove any or all such Centering, Scaffolding, Staging, Planking, Timbering, Strutting, Shoring, etc., as occasion shall require or when ordered to do so, and shall fully reinstate and make good all matters and things disturbed during the execution of the work to the satisfaction of the Corporation's Engineer.



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#### 6. **AUTHORITIES NOTICES AND PATENTS**:

- The Contractors shall conform to the provisions of any Acts of the Legislature relating to the work and to the Regulations and Bye-Laws of any Authority and or any Water, Lighting and other Companies and/or Authorities with whose system the structure is proposed to be connected and shall before making any variations from the Drawings or Specifications that may be necessitated by so conforming give to the CE written notice specifying the variations proposed to be made and the reasons for making them and apply for instructions thereon. In case the Contractor shall not within 7 (seven) days receive such instructions, he shall proceed with the work conforming with the Provisions, Regulations or Bye-Laws in question.
- 6.2 In particular, the Contractors shall be responsible to Register themselves under the Contract Labour (Regulation & Abolition) Act 1970 and Rules there under and any amendment thereto; they must comply with and carry out all the provisions and obligations under the said Act and Rules and furnish all information to Employer as may be required by it and shall indemnify the Employer against any penalties/claims arising from any default on their part.
- 6.3 The Contractor shall arrange to give all notices required by the said Acts, Regulations or Bye-Laws to be given to any Authority and to pay to such Authority or to any Public Office all fee that may be properly chargeable in respect of the work and lodge the receipts with the Employer.
- The Contractors shall indemnify the Employer against all claims in respect of patent, rights, and shall defend all actions arising from such claims unless he has informed the Addl. Executive Director before any such infringement and received his permission to proceed and shall himself pay all royalties, licence fees, damages, costs and charges of all and every sort that may be legally incurred in respect thereof.
- 6.5 The Contractor should observe that his work shall not cause any nuisance to the Public in general and to the neighbouring occupants in particular.

Should the Contractor desire to work on Sundays, Holidays and during night hours, permission in writing from the Corporation's Engineer must be obtained in time. It shall be the responsibility of the Contractor to obtain permission from Electrical/Electronics Authorities, if necessary.

#### 7. **SETTING OUT WORK:**

The Contractor shall set out the work and shall be responsible for the true and perfect setting out of the same and for the corrections of the positions, levels, dimensions and alignment of all parts thereof. If at any time any error shall appear during the progress of any part of the work, the Contractor shall at his own cost rectify such error, if called upon, to the satisfaction of the Corporation's Engineer. The Contractor must not commence work until the outlines of the building and Centre line layout have been pegged out and approved by the Corporation's Engineer.



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#### 8. **CONTRACTOR IMMEDIATELY TO REMOVE OFFENSIVE MATTER:**

8.1 All soil, filth or other matter of an offensive nature taken out of any trench, sewer, drain, cesspool or other place shall not be deposited on the surface, but shall be at once carted away by the Contractor to some pit or place provided by him.

#### 9. MATERIALS AND SAMPLES:

9.1 All the materials stores and equipment required for the full performance of the Contract must be provided through normal trade channels and must include applicable import duties and all applicable taxes and other charges, if any.

They shall be of approved quality and the best of their kind available and the Contractor must be entirely responsible for the proper and efficient carrying out of the work. The Contractor shall order all materials required for the execution of the work from local as well as from outside sources if situation warrants so as early as necessary to the satisfaction of the Corporation's Engineer and to ensure that such materials are on site well ahead of requirement for use in the work. Non-availability of materials in local market will not be an issue behind slow progress of work.

- 9.2 Before ordering such materials, the Contractor shall get samples of the materials approved well in time. Preference shall be given to ISI marked products and approved brands of requisite quality as mentioned in the tender. For materials, which are neither approved brands nor ISI marked, the same shall be got tested from approved laboratories at the Contractor's cost before approval. Approved brand and ISI marked product will also be tested if desired by the CE and if the test results are satisfactory, the cost of testing shall be borne by the Employer otherwise by the Contractor. No claim will be allowed for delay to the progress of work caused by test. If called upon by the Executive Engineer the Contractor shall produce proof for having arranged for the supply of materials well in time.
- 9.3 The Contractor shall furnish well in time before work commences at his own cost, any samples of workmanship that may be called for by the Corporation's Engineer for his approval and any further samples in case of rejection until such samples are approved. Such samples when approved shall be the minimum standard for the work to which they apply. In case of items like suspended ceiling, partitions, etc. typical sample panels or proto-types shall be erected in position for approval before undertaking work. Rates quoted shall cover for such preliminary work.

#### 10. ACCESS:

Any of the Corporation's Engineers or any persons authorized by any one of them shall at all reasonable time 10.1 have free access to the work and/or the workshops, factories or other places where materials are being prepared or constructed for the Contract and also to any place where the materials are lying or from which they are being obtained and the Contractor shall give every facility to all of them necessary for inspection and examination and test of the materials and workmanship. Except the representatives of the Public Authorities, no person shall be allowed on the work at any time without the written permission of the Corporation's Engineer.

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If any work is to be done at a place other than the site of the work, the Contractor shall obtain the written permission of the Corporation's Engineer for doing so.

#### CONTRACTOR'S SUPERVISION & MINIMUM REQUIREMENT OF TECHNICAL STAFF:

The Contractor shall either himself supervise the execution of the contract or may appoint a Competent Agent approved by the CE to act in his stead.

Where the contractor is not a qualified Engineer or even if he is so qualified, he cannot in the opinion of C.E., give his full personal attention to the works, he shall at his own expense employ person(s) possessing the qualification and experience as described hereunder as his accredited agent to supervise the works and to receive instructions from Corporation's Engineers. Any directions, instructions or notices given by the Corporation's Engineer to such supervisor(s) shall be deemed to be given to the contractors.

#### FOR WORKS COSTING UPTO Rs. 100 LAKHS:

A qualified resident Engineer having a Government recognized Diploma in Electrical/Electronics Engineering and minimum of 2 years experience on building construction site.

#### FOR WORKS COSTING MORE THAN Rs. 100 LAKHS & UPTO Rs. 200 LAKHS:

A qualified resident Engineer having a Recognised Degree in Electrical/Electronics Engineering or equivalent qualification and minimum of 2 years experience on building construction site/s or a recognized Diploma in Electrical/Electronics Engineering with minimum 5 years experience on such construction jobs.

#### FOR WORKS COSTING MORE THAN Rs.200 LAKHS:

- i) A qualified resident Engineer having a Recognized Degree in Electrical/Electronics Engineering and minimum of 3 years experience of such major construction site/s or a recognized diploma in Electrical/Electronics Engineering with 8 years experience.
- ii) In addition the contractor shall employ suitable number of supervisors with recognized degree / diploma in the relevant branches or recognized qualification & experience in the relevant trades for proper execution of the work as approved by the Addl. Executive Director.

The AED may vary any of the above qualification / experience at his discretion if so warranted by conditions prevailing and applicable to any particular work such as Air-conditioning, HT, and Interiors etc.

If the contractor fails to employ suitable person(s) to supervise the work or fails to appoint replacement(s) when necessitated, amount as stipulated in the Appendix to the conditions of contract shall be recovered from the contractor for each Engineer and each supervisor for the period of non-employment.

#### 12. DISMISSAL OF WORKMEN:



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The Contractor shall, on the instruction of the Corporation's Engineer, immediately dismiss from the work any person employed thereon, who may, in the opinion of the Corporation's Engineer, be unsuitable or incompetent or who may misconduct himself and such person shall not be again employed or allowed on the work without the permission of the Corporation's Engineer.

#### 13. DATES OF COMMENCEMENT AND COMPLETION:

The "Date of Commencement" shall be as stated in the Work Order and the Contractor shall thereupon and forthwith begin the work and shall regularly proceed with and complete the same on or before the "Date of Completion" stated in the Work Order, subject to the provisions for extension of time hereinafter contained.

#### 14. ASSIGNMENT:

14.1 The whole of the work included in the Contract shall be executed by the Contractor and the Contractor shall not directly or indirectly transfer, assign or underlet the Contract or any part, share of interest therein nor shall he take a new partner without the written consent of the CE and no subletting shall relieve the Contractor from the full and entire responsibility of the Contract or from the active superintendence of the work during its progress.

#### 15. DEVIATION, VARIATION, EXTRA/DEVIATED ITEMS AND PRICING:

The Contractor should note that unless otherwise stated, the tender is strictly on Item Rate / Percentage Rate basis and his attention is drawn to the fact that rates for each and every item should be correct, workable and self supporting. The quantities in the Schedule of Quantities approximately indicate the total extent of work and no variation i.e. additions, omissions or subtractions shall vitiate the Contract. No liability shall attach to the Employer for any error therein or variation there from.

The contractor may when authorized and shall when directed, in writing by the CE or the Corporation's Engineers, whom the AED may for that purpose appoint, add to, omit from, make alterations in, substitutions for, or vary the works shown upon the Drawings or described in Specifications or included in the priced Schedule of Quantities but the Contractor shall make no additions, omissions, alterations, substitutions or variations without such authorization or direction. A verbal authority or direction by the CE, if confirmed by the contractor in writing within 7 (seven) days, be deemed to have been given in writing.

The rates of such altered, additional or substituted works shall be determined in accordance with the following.

The net rates or prices in the original tender shall determine the valuation of the extra work where such extra work is of similar character and executed under similar conditions as the work priced therein.

The net price of the items in the original tender shall determine the value of the items omitted. However, if omissions vary the conditions under which any remaining items of the work are carried out or if the amount of any omission relative to the amount of the whole of the Contract works or to any part thereof shall be such that in the opinion of the Addl. Executive Director, the net rate or price contained in the Priced Schedule of Quantities or Tender or for any item



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of work involves loss or expenses beyond that reasonably contemplated by the Contractor and is by reason of such omission rendered unreasonable or inapplicable, the Addl. Executive Director shall fix another rate or price as in the circumstance he shall think reasonable and proper.

If the rate for any altered, additional, or substituted item of work is not specified in the schedule of quantities, the rate for that item shall be derived from the rate for the nearest similar item specified therein.

If the rate for altered, additional or substituted item of work cannot be determined in the manner specified above, then such items of work shall be priced on the basis of coefficients of labour and materials as given in the latest CPWD rate analysis handbook and rates for labour and materials wherever applicable shall be the market rate prevailing at the time of execution.

Where such co-efficient are not available in C.P.W.D. rate analysis, the actual Labour/Materials involved and recorded by the LICI Engineer in executing the items shall be considered.

Where extra work cannot be properly measured or valued, the Contractor shall be allowed "Day Work" prices at the net rates stated in the Tender or the Priced Schedule of Quantities or, if not so stated, then in accordance with the local "Day Work" rates and wages for the district, provided that in either case vouchers specifying the date and time (and if required by the LICI Engineer the names of workmen employed) and materials incorporated be delivered for verification to the LICI Engineer or his representative at or before the end of the week following that in which the work has been executed. The LICI Engineer is not bound to recognize the cost of materials furnished in vouchers; the CE at his discretion will fix the price of such materials based upon market value.

While fixing rates of extra items 15% (Fifteen percent only) shall be allowed over & above the basic rate of material (without GST) T &P, Water Charges & labour to cover all supervision, overheads, profits and all other applicable taxes/cess. GST on works contract will be paid separately.

For all extra items of work, the contractor should submit to the concerned Corporation's Engineer the necessary particulars along with his analysis and the rate he proposes to claim for consideration within a period of 4 (four) weeks from the time of cropping up of any authorized extra / deviated item. He shall also ensure that all the authorized claims are included in the final bill. If the contractor fails to submit his claim within the stipulated period or the period duly extended by the Corporation's Engineer, then the CE shall proceed to fix the rate for the item(s) and the same shall be final and binding on the contractor.

The Contractor shall note that Extra/Deviated items claim and/or any other claim whatsoever if submitted after submission of his Final Bill will not be entertained and considered by the Employer. The Contractor shall not be allowed to make any Additions/ Alterations/ Revisions / Changes/ Modifications/ Variations in the final bill, after the final bill is submitted by him.



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#### 16. SUB-CONTRACTORS:

- 16.1 All specialist Merchants, Tradesmen and others, executing any work or supplying, fixing any goods for which provisional sums are included in the Schedule of Quantities and/or Specifications, who may be nominated or selected by the CE, who shall be the final authority are hereby declared to be Sub-Contractors and are herein referred to as nominated Sub-Contractors.
- 16.2 No nominated Sub-contractor shall be employed on or in connection with the work against whom the Contractors shall make reasonable objection or (save where the CE and the Contractor shall otherwise agree) who will not enter into a Contract providing:-

That the nominated Sub-Contractor shall indemnify the Contractor against the same obligation in respect of the Sub-Contractor as the Contractor is under, in respect of this Contract;

That the nominated Sub-Contractor shall indemnify the Contractor against claims in respect of any negligence by the Sub-Contractor or his servants or agents or any misuse by him or them of any scaffolding or other plant or the property of the Contractor or under any Workmen's Compensation Act in force.

17. THIRD PARTY LIABILITY, DAMAGE TO NEIGHBOURING PROPERTY, LOSS OF MATERIAL AND WORKMEN'S COMPENSATION:

The Contractor shall be responsible for all injury to persons, animals or things, and for all damage to structural and/or decorative part of property which may arise from the operations or neglect of himself or of any Sub-contractor or any of his Sub-Contractor's employees, whether such injury or damage arise from carelessness, accident or any other cause whatsoever in any way connected with the carrying out of his Contract. This Clause shall be held to include inter-alias, any damage to Building, whether immediately adjacent or otherwise and any damage to roads, streets, footpaths, bridges, or ways as well as all damage caused to the building, and the works forming the subject of this Contract by frost, rain, wind or other inclemency of the weather. The Contractor shall fully indemnify the Employer and hold him harmless in respect of all and any expenses arising from any such injury or damage to persons or property as aforesaid and also in respect of all and any claim made in respect of injury or damage under any acts of Government or otherwise and also in respect of any award or compensation or damages consequent upon such claim.

The Contractor shall fully indemnify the employer against any loss, damage or deterioration for whatever reason, of all materials brought at site and especially material supplied by or paid for partly or wholly by the employer.

The Contractor shall reinstate all damage and loss of every sort mentioned in this Clause so as to deliver up the whole of the Contract works complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damage to the property of the third parties.

The Contractor shall fully indemnify the Employer against all claims which may be made against the Employer by any member of the Public or other third party in respect of anything which may arise in respect of the works or in consequence thereof.



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The contractor shall at his own expense arrange to effect from the date of commencement & maintain till the date of virtual completion of contract, with any licensed general insurance company, a POLICY OF INSURANCE (Contractor's All Risk Policy) to cover all such risks detailed above viz. loss, damage & third party liability etc. The policy shall be of an amount as mentioned in Appendix to Conditions of contract and in the joint names of the employer & contractor and shall be deposited with the employer and renewed as required from time to time during the currency of the contract.

The Contractor shall also fully indemnify the Employer against all claims which may be made upon the Employer, whether under the WORKMEN'S COMPENSATION ACT or any other STATUTE in force during the currency of this Contract or at Common law in respect of any Employee of the Contractor or any Sub-Contractor and shall at his own expense effect and maintain until the Virtual completion of the work, with "licensed General Insurance Company" a POLICY OF INSURANCE of adequate amount in the joint names of the Employer and the Contractor against such risks and deposit such policy or policies with the employer & renew the same as required from time to time during the currency of the Contract.

The Contractor shall be responsible for anything, which may be excluded from the Insurance Policies above referred to, and also for all other damage to any property arising out of or incidental to the negligence or defective carrying out of the Contract.

The amount of insurance to be taken for the above policies will be jointly decided between the contractor and the employer before issue of acceptance letter based on the tendered cost, nature of work, location of site, local hazards etc.

In default of the Contractor insuring as provided above, or having insured failing to renew the same as required the Employer on his behalf may so insure/renew and may deduct the premiums paid from any monies due or which may become due to the Contractor together with penalty as the CE deems appropriate.

The Contractor shall also fully indemnify the Employer in respect of any costs, charges or expenses arising out of any claim or proceedings at law and also in respect of any award of compensation of damages arising there from.

The Employer shall be at liberty and is hereby empowered to deduct fully the amount of any damages, compensation costs, charges and expenses arising or accruing any such claim of damage from any sum or sums due or to become due to the Contractor.

#### 18. DELAY AND EXTENSION OF TIME:

If the works be delayed due to any of the following:

by force majeure,

by reason of any exceptionally inclement weather,



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by reason of proceedings taken or threatened by, or disputes with, adjoining or neighbouring owners, or public authorities,

by the work, or delays, of other Contractors or Tradesmen engaged by the Employer,

by reason of any additional work or instruction ordered by the employer,

by reason of Electrical/Electronics Commotion, local commotion of workmen or strike or lock-out affecting any of the building trades,

in consequence of the Contractor not having received in due time necessary instructions from the CE for which he shall have specifically applied in writing,

from other causes which the AED may certify as beyond the Control of the Contractor,

by reason of non-payment of interim certificate at specified time,

Then upon the happening of any such event causing delay, the contractor shall immediately, give notice thereof in writing to the Corporation's Engineer, but shall nevertheless use constantly his best endeavors to make good this delay.

- 18.2 Request for extension of time shall be made by the contractor at the earliest of the event causing delay.
- 18.3 In case of strike or lockout the Contractor shall give written notice thereof to the CE as soon as possible but he shall nevertheless constantly use his endeavours to prevent delay and shall do all that may reasonably be required to the satisfaction of the AED to proceed with the work.
- The AED shall make a fair and reasonable assessment of the delay and grant extension of time accordingly. Such extension shall be communicated to the contractor by the Corporation's Engineer immediately within 30 (Thirty) days of the date of receipt of request for extension. Non-application by the contractor for extension shall however not be a bar for giving fair and reasonable extension which shall be as decided by the AED.
- 18.5 The decision of the AED as communicated by the Corporation's Engineer to the contractor on the extension of time shall be final & binding.
- 18.6 No claim in respect of compensation or otherwise, howsoever arising, as a result of extension granted under the above conditions shall be admissible.

#### 19. COMPENSATION IN THE FORM OF PENALTY FOR DELAY OF WORK:

If the Contractor fails to complete the work by the date of completion stated in the "Appendix to Condition of Contract" or within time properly extended under Clause (18) hereof and the CE certifies in writing that in his opinion the same ought, reasonably so, to have been completed, the Contractor shall pay or allow the Employer compensation as mentioned in the "Appendix to condition of contract" as "Compensation in the form of penalty for delay of work"



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for delay of the work " for the period during which the said works shall so remain incomplete and the Employer may deduct such damages from any money due to the Contractor. In case liquidated damages in accordance with the above provision accrue to maximum limit as mentioned in the Appendix to the Conditions of the Contract, the Addl. Executive Director shall be at liberty to rescind the Contract and to get it completed entirely at the risk and cost of the Contractor through any other agency he decides to appoint. All extra expenses incurred shall be recoverable from the money due to Contractor or lying to his credit with the Employer against the present or any other Contract.

#### 20. FAILURE BY CONTRACTOR TO COMPLY WITH AED'S INSTRUCTIONS:

20.1 If the Contractor after receipt of written notice from the AED, requiring compliance with such further Drawings and/or his instructions, fails within 7 (seven) days to comply with the same the AED may employ and pay other persons to execute any such work whatsoever as may be necessary to give effect thereto and all additional costs incurred in connection therewith shall be deducted from any money due or to become due to the Contractor.

#### 21. MEASUREMENT OF WORKS & Payment of bills

21.1 MEASUREMENT OF WORKS: The measurement of works shall be recorded in EXCEL format by the Construction Associates at the site as works progress. Any approved authorised extra/deviated work executed during the period will also be measured in EXCEL format. The EXCEL sheet measurement will be submitted by the Construction Associate to the LIC site Engineer in both hard and soft format. The soft copy to be forwarded through e-mail to the concerned site engineer. The measurements then will be checked 100% by LIC site engineer and if required, the same shall be corrected by LIC site engineer to establish that the measurement so given by the Construction Associate is in order and complete in all respects.

All concealed measurements shall be verified by LIC site engineer and test checked by Higher Officials, wherever required, before its concealing and hard copy duly signed by Construction Associate and LIC engineers shall be maintained/preserved.

If there is any variation of measurement after the test checking, the particular measurement will be re-entered by the LIC site engineer and then the corrected EXCEL measurement will be converted to PDF format. A print of such PDF formatted measurement sheet will be taken and signed by the LIC site engineer, Test Checking engineer and the Construction Associate on the hard copy.

Abstract of bill in EXCEL & PDF will be submitted by Construction Associate. The Construction Associate will have their key in the quantities of the corresponding item from the PDF formatted measurement sheet.

The Construction Associate on receipt of the corrected hard copy of Abstract of bill from LIC will prepare their tax invoice on their letter head and submit to LIC of India for further processing of their bill for release of payment.

21.2 Should the contractor not attend or neglect or omit to send such representative, then the



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Measurements taken by the LICI Engineer or representative shall be taken to be correct measurements of the work. Wherever not specified in the "Schedule of Quantities or elsewhere" the mode of measurements shall be in accordance with the latest brochure issued by the Indian Standards Institutions (now renamed as Bureau of Indian Standards) on "Method of measurement of Building works".

The Contractor or his representative may, at the time of measurement, take such notes and measurements as he may require.

All authorized extra work. Omissions and all variations made without the Addl. Executive Director's knowledge, if subsequently sanctioned by him in writing, shall be included in such measurement.

If the contractor or his authorized representative does not record the measurements periodically for the completed works, then the site Engineer shall take measurements after giving notice in writing of at least 3 (three) days. Measurements recorded in the absence of Contractor shall be intimated with a copy of such measurements to the contractor. If the contractor fails to countersign or record objections within a week from the date of measurement, then such measurement recorded in absence by the Site Engineer shall be deemed to be accepted by and binding on the Contractor.

21.6 The Contractor shall, without any extra charge provide all assistance with every appliance, labour and other things necessary for taking measurements (either by him or by site Engineer) and recording levels including test checking of such measurements by any person authorized by the Employer.

All work shall be measured net as fixed in its place. All measurements of 'cutting' shall be held to include for the consequent wastage on the materials used.

Except where any general or detail description of the works expressly shows to the contrary, measurements shall be taken in accordance with the procedure set forth in the specifications notwithstanding any provision in the relevant Standard Method of measurement or any general or local custom. In the case of items for which procedure is not covered in the specification, measurement shall be taken in accordance with the relevant Standard Method of measurement issued by BIS and if for any item no such standard is available then a mutually agreed method shall be followed.

Measurements of all hidden/concealed items of work including extra items if any, such as, work in foundations including excavations, plinth filling, masonry, concrete etc. steel in all R.C.C. work, pipe to be encased etc. shall be jointly recorded by the contractor and Site Engineer or his authorised representative before they are covered up. Immediately after the work is ready for measurements, Contractor will give specific notice to the Site Engineer for recording the measurements. If the Site Engineer or his authorised representative fails to record the measurements, the Contractor will refer the matter to the Corporation's Engineer for instructions, but in no case shall cover up work without the latter's permission.



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#### 22. PAYMENTS:

22.1 The contractor shall be paid by the Employer, from time to time, by installment under Interim Certificate to be issued by the LICI Engineer to the Contractor on account of the work executed, when in the opinion of the LICI Engineer, work to the approximate value named in the Appendix to the conditions of Contract as "Value of work for Interim certificate" (or less at the reasonable discretion of the LICI Engineer) has been executed in accordance with this contract, subject however to a retention of the percentage of such value mentioned in Appendix to the Conditions of Contract hereto as "Retention percentage on account of Security Deposit". The Interim Certificate shall be based upon interim Bills of Running Account Bills to be prepared by the Contractor and supported by the detailed measurements. The LICI Engineer may include in the Interim Certificate such amount as he may consider proper on account of materials delivered upon the site by the contractor for use in the work, after satisfying price of materials on basis of vouchers/bills submitted by the contractor.

In case any material have been supplied by the Employer to the contractor in connection with the work, necessary recovery for the same shall be effected from the bills of the contractor by the CE at the issue rates of such materials as stipulated while calling for tenders and in other cases at a stock rate or market rates of such materials, whichever is higher. The contractor will, however, not be entitled to modify his rates for items of work requiring use of such materials and when the work has been virtually completed and the CE shall have certified in writing that it has been so completed on the basis of detailed measurements and after obtaining written endorsement by the CE that the CE/ Deputy Addl. Executive Director has made a final Scrutiny and that there are no disputed items, rates of quantities, the contractor shall be paid by the Employer in accordance with certificate to be issued by the CE the sum of money named in the Appendix as "Installment after Virtual Completion" and the contractor shall be entitled to the payment of the final bill in accordance with the final certificate to be issued in writing by the Deputy Addl. Executive Director with the approval of the CE with expiration of the period referred to as "Defects Liability Period", in the Appendix to Conditions of Contract hereto from the date of Virtual Completion or as soon after the expiration of such period as to work shall have been finally completed and all defects made good according to the true intent and meaning hereof, whichever shall last happen.

Provided always that the issue by the LICI Engineer of any certificate during the progress of the works or at after their completion shall not relieve the contractor from his liability under Clause (2) in cases of fraud, dishonesty or fraudulent concealment relating to the work of materials or to nay matter dealt with in the certificate in case of all defects and insufficiencies in the work or materials which a reasonable examination would not have disclosed. No certificate of the Deputy Addl. Executive Director or Executive Engineer shall of itself be conclusive evidence that any work or materials to which it related are in accordance with the contract.

The Addl. Executive Director may make any correction in previous certificate which shall have been issued by the Executive Engineer/Superintending Engineer.

Payment upon the LICI Engineer's certificate shall be made within the periods named in the Appendix "Period for honouring Interim Certificate" after such a certificate has been delivered to the Employer.



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The CE shall have power to withhold any certificate if the work or any parts thereof are not being carried out to his satisfaction.

Provided always that the issue by the Corporation's Engineer of any Certificate during the progress of the works or after their completion shall not relieve the Contractor from his liability in cases of fraud, dishonesty or fraudulent concealment relating to the work or materials or any matter dealt with in the Certificate in case of all defects and insufficiencies in the work or materials which a reasonable examination would not have disclosed. No Certificate of the Corporation's Engineer shall of itself be conclusive evidence that any work or materials to which it related are in accordance with the Contract.

- 22.3 Payment upon the Corporation's Engineer's Certificate shall be made within the periods named in the Appendix "Period for honoring Interim Certificate" after such a Certificate has been delivered to the Employer;
- The CE shall have power to withhold any Certificate if the work or any parts thereof are not being carried out to his satisfaction. However, if the final certificate is not issued within the period as mentioned under Clause No.22.5, 26 due to Audit para by CTE etc., the amount involved for such items of deficient work as decided by Addl. Executive Director would be with held. The same would be allowed as agreed upon by the CTE & the Addl. Executive Director and the final certificate would accordingly be issued and final bill passed. For such withheld amount, a simple interest @ 6% per annum shall be paid to the contractor along with the said payment. Such interest will be calculated from the last date (as mentioned in Appendix to Conditions of Contract) for honoring final certificate till the date of payment.
- 22.5 The measurements and valuation in respect of the Contract shall be completed within the "period of Final Measurement" stated in the Appendix or if not so stated then within six months of the completion of the contract works as defined in Clause (26) hereof. No further claim shall be made by the contractor after submission of the final bill and these shall be deemed to have been waived and extinguished.

The final certificate shall be based on the submission of final measurements or overall measurements of the work (to be taken if so directed by Corporation's Engineer) with all relevant details similar to 22.1 above. The CE may direct the Contractor to resubmit details if the same are found incomplete to issue the final certificate and his decision to accept the details is final and binding on the Contractor. Final Certificate shall be issued by the CE after the conditions are met with as per 22.4, 22.5, 22.6 and 26 and contractor's submission of No Claim certificate cum receipt as per the Proforma given in Appendix to Conditions of Contract.

#### 23. SECURED ADVANCE AGAINST MATERIALS:

23.1 The Contractor shall be entitled to be paid advance along with interim bill against materials which are not perishable and which are in the opinion of Corporation's Engineer, required for the works and have been brought on site for incorporation in the work but have not been so incorporated and are safeguarded against loss due to any cause whatsoever, (refer clause no-17). The amount of such advance against materials shall be arrived at on the following basis:



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80% of the market value of materials required for the work and brought on site.

OR

80% of the cost of such materials (brought on site) as derived from the relevant accepted tender rate for the particular item involving such materials, whichever is lower.

b) Such advance payment made against materials shall be recovered from or adjusted from the interim bills as and when the materials are utilized in the work.

Examples of certain perishable materials on which no advance shall be paid are Sand, Paint, Bitumen, Hard Boards/Soft Boards and other paper products, Petroleum Products, Coal Tar, and Insulating Boards etc.

23.2 In case of dispute, the decision of the Addl. Executive Director on whether advance payment can be made against specific materials shall be final and binding.

#### 24. UNFIXED MATERIALS AND EQUIPMENTS:

All tools, plants and materials brought to the site by the Contractor shall vest in the Employer and shall not be removed from the site of works except by permission of the Corporation's Engineer in writing. The Employer shall have a lien on these materials and plants.

#### 25. REMOVAL OF IMPROPER WORK:

The Corporation's Engineer shall during the progress of the work have power to order in writing from time to time the removal from the work within such reasonable time or as may be specified in the order, of any materials, which in their opinion are not in accordance with the Specifications or instructions, the substitution of proper materials and the removal and proper re-execution of any work executed with materials or workmanship not in accordance with the Drawings and Specifications or Instructions and the Contractor shall forthwith carry out such an order at his own cost. In case of default on the part of the Contractor to carry out such an order, the CE shall have the power to employ other persons to carry out the same and all expenses consequent thereon or incidental thereto as certified by the EE shall be borne by the Contractor and may be deducted from any amounts due or that may become due to the Contractor.

#### 26. VIRTUAL COMPLETION:

The work shall be completed in accordance with the Contract and to the entire satisfaction of Addl. Executive Director. All unused materials, tools, plants, scaffoldings, temporary structures, hutments and things belonging to the Contractor shall be removed and the site of works cleared of rubbish and all waste materials by the contractor at his own expenses and delivered up tidy to the employer. After completion of the work, the contractor will serve a written notice to the AED to this effect. The Addl. Executive Director after satisfying himself shall thereupon approve the virtual completion. The Defect Liability Period shall commence from the date of such certification.



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#### 27. DEFECTS AFTER COMPLETION:

The defects, shrinkage, settlements or other faults, which may appear within "the Defects Liability Period, stated in the "Appendix to the Conditions of Contract" or if not stated then, within 12 (twelve) months after virtual completion of the work, arising on account of materials or workmanship not in accordance with the Contract shall, upon the directions in writing of the Corporation's Engineer and within such reasonable time specified therein, be amended and made good by the Contractor at his own cost unless the AED shall decide that he ought to be paid for such amendment and for making good, and in case of default, the AED may employ and pay other persons to amend and make good such defects, shrinkage, settlement or other faults, and all damages, loss and expenses consequent thereon or incidental thereto shall be recovered from any monies due or that may become due to the Contractor. The CE may in lieu of such amending and making good by the Contractors, deduct from any money due or that may become due to the Contractor, a sum to be determined by the AED equivalent to the cost of amending such work. Should any defective work have been done or materials supplied by any Sub-Contractor employed on the work, who has been nominated or approved by the AED as provided in Clause No.16 the Contractor shall be liable to make good in the same manner as if such work or material had been done or supplied by the Contractor and been subjected to the provisions of this Clause and Clause No.2 hereof. The Contractor shall remain liable under the provision of this Clause notwithstanding the payment of any Certificate or the passing of any accounts.

### 28. PROVISIONAL SUMS, APPLICATION OF:

For all the work listed under items for which provisional sums are provided in the tender, the AED reserves the right to invite separate tenders or select or order from any manufacturer or firms at his discretion and reserves to himself the right of paying direct to persons or firms for any such work. The Contractor will not have any claims over these items, but if tenders are invited for such items, he will also be invited to quote along with others.

28.2 If ordered by the AED, Contractor shall be required to carry out provisional sum items at the same conditions and rates as applicable for this Contract.

#### 29. OTHER PERSONS ENGAGED BY THE EMPLOYER:

29.1 AED reserves the right to execute any work not included in this Contract, which he may desire to have carried out, by other persons and the Contractor shall allow all reasonable facilities and the use of his scaffolding and plant for the execution of such work, but is not required to provide any special plant or materials for the execution of such work except by special arrangement with the Employer. Such work shall be carried out in such manner as not to impede the progress of the work included in the Contract and the Contractor shall not be responsible for any damage or delay which may happen to or be occasioned by such work.

#### 30. SUSPENSION BY THE CONTRACTOR:

30.1 If the Contractor except on account of any legal restraint upon the Employer preventing the continuance of the work, shall suspend the work or in the opinion of the AED shall neglect or fail to proceed with due diligence in the



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performance of his part of the Contract or if he shall make default in respect of Clause No.2, the Employer shall have the power to give notice in writing to the Contractor requiring that the work be proceeded within a reasonable manner and with reasonable dispatch. Such Notice shall purport to be a notice under this clause. After such notice is given, the Contractor shall not be at liberty to remove from the site of the work or from any ground contiguous thereto any plant or materials belonging to him, which shall have been placed thereon for the work and the Employer shall have a lien upon all such plant and materials to subsist from the date of such notice being given until the notice shall have been complied with. If the Contractor shall fail for 7 (seven) days after such notice given to proceed with the work as therein prescribed, the CE may proceed as provided in Clause No.31.

#### 31. DETERMINATION OF CONTRACT BY EMPLOYER:

- 31.1 If the Contractor (being an individual or a firm) commit any "Act of Insolvency" or shall be adjudged as Insolvent or shall make an assignment or composition of the greater part in number or amount of his creditors or shall enter into a deed of assignment with his creditors, or being an Incorporated Company shall have an order made against him or pass an effective resolution for winding up either compulsorily or subject to the supervision of the Court or Voluntarily or if the official Assignee of the Contractor shall repudiate the Contract or if the official Assignee or the Liquidator in any such winding up shall be liable within 7 (seven) days after notice to him requiring him to do so, to show to the reasonable satisfaction of AED that he is able to carry out and fulfill the Contract and if required by the CE to give security therefore or if the Contractor (whether an Individual Firm or Incorporated Company) shall suffer execution to be issued or if the Contractor shall suffer any payment under this Contract to be attached by or on behalf of any of the creditors of the Contractors or if the contractor shall assign or sublet the Contract without the consent in writing of the AED first obtained or if the Contractor shall charge or encumber this Contract or any payment due or which may become due to the Contractor there under, or if the AED shall certify in writing that in his opinion the Contractor,
- a. has abandoned the Contract, or
- b. has failed to commence the work, or has without any lawful excuse under these conditions suspended the progress of the work for 7 (seven) days after receiving from the AED written notice to proceed, or
- c. has failed to proceed with work with such due diligence and failed to make such due progress as would enable the work to be completed within the time agreed upon, or
- d. has failed to complete the work within the stipulated date including authorized extensions or
- e. has failed to remove the materials from the site or to pull down and replace the work within 7 (seven) days after receiving a written notice from the Corporation's Engineer that the said materials or work were condemned or rejected or



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- f. has neglected or failed persistently to observe and perform all or any of the acts, matters, or things, by this Contract to be observed and performed by the Contractor for 7 (seven) days after written notice shall have been given to the Contractor requiring the Contractor to observe or perform the same, or
- g. has to the detriment of good workmanship or in defiance of the AED's instructions to the contrary sub-let any part of the Contract.

then and in any of the said causes, the AED notwithstanding any previous waiver, after giving 7 (seven) days notice in writing to the Contractors, determine the Contract, but without thereby affecting the powers of the AED or the obligations and liabilities of the Contractor, the whole of which shall continue to be in force as fully as if the contract has not been so determined and as if the work subsequently executed had been executed by or on behalf of the Contractor. And further, the Employer, his agents or servants, may enter upon and take possession of the work and all plant, tools, scaffolding, sheds, machinery, steam and other power, utensils and materials, lying upon the premises or the adjoining lands or road and use the same as his own property or may employ the same by means of his own servants and workmen in carrying on and completing the work or by employing any other Contractors or other person or persons to complete the work, and the Contractor shall not in any way interrupt or do any act, matter, or thing to prevent or hinder such other Contractor, other persons or person employed for completing and finishing or using the materials and plant for the work. When the work shall be completed or as soon thereafter as convenient, the AED shall give a notice in writing to the Contractor to remove his surplus materials and plant and should the Contractor fail to do so within a period of 14 (Fourteen) days after receipt thereof by him, the Employer may sell the same by public auction and shall give credit to the Contractor for the amount so realized. The CE shall thereafter ascertain and certify in writing under his hand what (if anything) shall be due or payable to or by the Employer for the value of the said plant and materials so taken possession of by the Employer and the expense or loss which the Employer shall have been put to in getting the work to be so completed, and the amount, if any, owing to the Contractor and the amount, which shall be so certified shall thereupon be paid by the Employer to the Contractor or by the Contractor to the Employer, as the case may be and the Certificate of the AED shall be final and conclusive between the parties.

#### 32. TERMINATION OF CONTRACT BY CONTRACTOR:

- 32.1 If payment of the amount payable by the Employer under any Certificate of the EE shall be in arrears as unpaid for 60 (sixty) days after notice in writing requiring payment of the amount with interest of aforesaid shall have been given by the Contractor to the Employer, or if the work be stopped for six months under order of the AED or by any injunction or other order of any Court of Law, then and in any of the said cases, the Contractor shall be at liberty to determine the Contract by notice in writing to the Employer and he shall be entitled to recover from the Employer payment for all the work executed and for any loss, he may sustain upon any plant or material supplied or purchased or prepared for the purpose of the Contract.
- 32.2 In arriving at the amount of such payment, the net rates contained in the Contractor's original tender shall be followed or where the same may not apply, valuation shall be made in accordance with Clause No.15 hereof.



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#### 33. DETERMINATION OF CONTRACT DUE TO ABANDONMENT OR REDUCTION IN SCOPE OF WORK:

33.1 If at any time after the acceptance of the tender, the Employer shall for any reasons whatsoever not require the whole or any part of the works to be carried out, the AED shall give notice in writing to the Contractor who shall have no claim to any payment of compensation or otherwise whatsoever on account of any profit or advantage which he might have derived from the Execution of the whole of the works.

The Contractor shall be paid at contract rates for the full amount of work executed and in addition:

The cost at site of all surplus approved materials collected for incorporation in the work, which the Contractor does not wish to retain and which shall thereafter become the property of the Employer.

Where the Contractor desires to retain the surplus of approved materials (excepting materials supplied by the Employer or obtained in Employer's name, which shall, in any case, be returned to the Employer) the cost of handling and cartage charges for removal from the site to a reasonable distance not exceeding 25 kms.

If upon the determination of the Contract under this condition, the Contractor is of the opinion that he has suffered hardship by reason of the operation of these conditions, he may refer the circumstances with full details to the Addl. Executive Director, who on being satisfied that such hardship exists or has existed, shall make such allowance, if any as in his opinion is reasonable, and his decision shall be final, conclusive and binding.

#### 34. DISPUTES TO BE FINALLY DETERMINED BY ADDL. EXECUTIVE DIRECTOR:

The Instruction, Decision, Opinion, Direction, Certificate or Valuation of the CE with respect to all or any of the matters under Clause (2), (3), (5), (6), (9), (14), (15), (18), (23), (27), (30), (31) and (33) hereof (which matters are herein referred to as EXCEPTED MATTERS) shall be final and conclusive and binding on the parties hereto and shall be without appeal. Any other Decision, Opinion, Direction, Certificate or Valuation of the CE or any refusal of the CE to give any of the same shall be subject to the right of Arbitration and review as given under Clause No.36.

#### SECURITY DEPOSIT AND PERFORMANCE GUARANTEE: 35.

Amount towards Security deposit shall be calculated as per details given in "APPENDIX TO CONDITIONS OF 35.1 CONTRACT" in Part-II of the tender. Security Deposit can be either in the form of Bank Guarantee or DD as per PART-II.

The EMD shall be retained as part of Security Deposit and balance Security Deposit shall be accumulated through retentions from Running Account Bills at 7.5% (maximum) of gross amount of bill. In case of Bank Guarantee option, the Contractor shall furnish one Bank Guarantee for full amount of Security deposit valid till end of defects liability period OR, two Bank Guarantees of like amounts each equal to half the Security deposit; one valid till virtual completion and the other till end of defects liability period plus CAMC period

Addl. Executive Director Contractor



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- Performance Guarantee if required shall be as mentioned in "Appendix to Conditions of Contract" and in the form of Bank Guarantee valid up to scheduled date of completion plus six month claim period.
- 35.3 The Bank Guarantee/s shall be from any Nationalized / Scheduled Bank preferably at place of work site or Zonal Headquarter of LIC within whose jurisdiction the work falls or where a Branch/Division of the Corporation exists.
- 35.4 Bank Guarantee/s (BGs) against Security Deposit (SD) and Performance Guarantee (PG) shall be executed as per the specimen pro-forma at Annexure B and C. Bank guarantee/s against Security Deposit and Performance guarantee shall be submitted within 21 (twenty one) days from the date of acceptance letter.
- In case of failure by the contractor to furnish the Bank Guarantee against Performance Guarantee as per Cl.35.2 by the stipulated date or extended date if any, Employer shall without prejudice to any other right or remedy available in law, be at liberty to cancel the tender and forfeit the Earnest Money absolutely.
- 35.6 50% of the Security Deposit shall be refunded after the certificate of virtual completion is issued to the contractor & provided that the employer has no claim for forfeiture of part or whole of the said deposit.
- 35.7 Balance 50% of Security deposit will be refunded to the contractor after the satisfactory completion of the defects liability period + CAMC period, subject to deductions for any appropriations thereof required to be made by the employer as per the conditions of contract.
- 35.8 If one Bank Guarantee in lieu of total Security Deposit is furnished, the same will be released only after the successful completion of Defects Liability period subject to any appropriations as aforesaid.
- 35.9 If two Bank Guarantees in lieu of Security deposit are furnished, the First Bank Guarantee will be released after the certificate of Virtual completion is issued to the contractor and second shall be released after the satisfactory completion of Defects Liability Period subject to any appropriations as aforesaid.
- 35.10 Bank Guarantees towards Performance Guarantees (where applicable) shall be released after the virtual completion of work as given in appedix to conditions of contract.
- 35.11 Contractor shall keep the Security Deposit and Performance Guarantee, where applicable, replenished to its full value whenever any recovery or appropriation there from occurs. The employer reserves the right to do so from any money(s) due to the contractor lying with them.
- 35.12 The Contractor should note that no interest will be allowed on any part of the Security deposit.
- 35.13 No deductions will be effected from the bills when the total security deposit is paid in the form of Bank Guarantee(s) and the E.M.D shall be refunded after acceptance of Bank Guarantee(s).
- 35.14 In the event of failure by the contractor to submit Bank Guarantee(s) by the specified / extended date, recovery of Security deposit shall be effected from the R.A Bills. However, where the contractor fails to furnish Bank Guarantee against Performance Guarantee the matter shall be dealt with as per Cl. 35.5 above.



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35.15 In all cases of Bank Guarantees, there shall be further provision of claim period of 6 months. If the contract period gets extended for any reason whatsoever, the contractor shall obtain the required extensions to the Bank Guarantee(s).

#### 36. SETTLEMENT OF DISPUTES, ARBITRATION:

All disputes and differences of any kind whatsoever arising out of or in connection with the Contract or the carrying out of the work (whether during the progress of the work or after its completion and whether before or after determination, abandonment or breach of Contract) shall be referred to a Standing Committee consisting of 1 Retired High Court Judge and 2 Members from Engineering fraternity retiring as senior Engineer from Government/ Government Undertaking. Ther Committee will be constituted by the Chairmen, LIC of India.

The claims arising out of the Contract will be placed before the Committee once in a quarter and decision will be conveyed to both the contractually agreed parties.

Either of the party on being dissatisfied with the decision may approach to a Three Member Arbitral Tribunal, one each will be appointed by either party and 2 appointed Arbitrators will appoint 3rd Arbitrator who will act as the Presiding Arbitrator.

Executive Director (Engg.) will appoint the Arbitrator on behalf of L.I.C. Of India. The Arbitration shall be conducted in accordance with Arbitration and Reconciliation (Amendment) Act 1996 as amended by the Arbitration and Reconciliation (Amendment) Act 2015 (3 of 2016) and any other amendment thereafter if any.

36.5 The contractually agreed parties hereby also agree that the Arbitration under this Clause shall be a condition precedent to any Right of Action in Law of Court under the Contract.



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## PROFORMA OF ARTICLES OF AGREEMENT

ARTICLES OF AGREEMENT made atthisday of20 between THE LIFE INSURANCE						
CORPORATION OF INDIA, a body corporate constituted and established by the Life Insurance Corporation Act, 1950						
(Act 31 of 1956) and having its Central Office at "Yogakshema", Jeevan Bima Marg, Mumbai and its Zonal Offi						
at Kolkata hereinafter called the Employer (which expression shall include its successors and assignees wherever						
context or meaning shall so require or permit) of the one part and M/s( hereinafter called "The						
Contractor" ) of the other part.						
WHEREAS the Employer is desirous of constructing the						
and has prepared drawings and specifications and the Schedule of Quantities which have been signed by or on beha						
of the parties hereto.						
AND WHEREAS the Contractor has agreed to execute upon and subject to the conditions and instructions set fort herein (hereinafter referred to as "the said Conditions") the works shown upon the said drawings and/or described in the said Specifications and included in the said Abstract Schedule of Quantities at the item rates there set forth amounting to the contract sum of Rshereinafter referred to as "the said contract Amount".						
NOW IT IS HEREBY AGREED AS FOLLOWS:						
1. In consideration of the said Contract Amount to be paid at the times and in the manner set forth in the said conditions, the contractor shall upon and subject to the said Conditions execute and complete the works shown upon the said Drawings and described in the Specifications and/or the priced Schedule of Quantities.						
2. The Employer shall pay the contractor the said Contract Amount or such other sum as shall become payable for the items and in the manner hereinafter specified in the said conditions.						
3. The said Conditions and Appendices thereto shall be read and construed as forming part of this						
Agreement, and the parties hereto shall respectively abide by and submit themselves to the conditions and perfo						
the Agreement in their part respectively in such conditions contained.						
4. All disputes arising out of or in any way concerned with this Agreement shall be deemed to have arisen						
inshall have jurisdiction to determine the same.						
5. The contract comprises :-						
i) Tender Documents Serial Pages						
ii) Subsequent Correspondence Serial Pages						
Architectural Drawings Serial Pages						



LIFE INSURANCE CORPORATION OF EAST CENTRAL ZONAL OFFICE, ENGG. DEPTT. (4<sup>TH</sup> R) "JEEVAN DEEP", EXHIBITION ROAD, PATNA – 800 01 PHONE: 0612-2501118/2503014/2501103, E-mail: ecz\_engg@licindia.com
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, , ,	cons have been made in these documents and as evidence that these cution of Contract Agreement, they have been initialled by the contract	or
Engineer,	Zone, Life Insurance Corporation of India Tl	he
said officer is hereby authorised to signormact.	gn and initial on the Employer's behalf, the documents forming part of	this
ZONE, was thereto affixed and signed of	Seal of the LIFE INSURANCE CORPORATION OF INDIA,on its behalf by the Addl. Executive Director and by the Contractor/s on the dates respectively mentioned against their ses whose signatures are also appended.	
In the presence of	ADDL. EXECUTIVE DIRECTOR	
1. Signature :	FOR AND ON BEHALF OF THE LIFE INSURANCE CORPORATION	
Name :	OF INDIA	
Address:	Date :	
2. Signature :		
Name :		
Address:		
In the presence of	FOR AND ON BEHALF	
Name : Address :	M/S Date :	
2. Signature:		
Name : Address :		

ANNEXURE - 'B'



LIFE INSURANCE CORPORATION OF EAST CENTRAL ZONAL OFFICE, ENGG. DEPTT. (4<sup>TH</sup> R) "JEEVAN DEEP", EXHIBITION ROAD, PATNA – 800 01 PHONE: 0612-2501118/2503014/2501103, E-mail: ecz\_engg@licindia.com
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# LIFE INSURANCE CORPORATION OF INDIA (Refer Clause No. 35 of Conditions of Contract) FORM OF BANK GUARANTEE IN LIEU OF SECURITY DEPOSIT IN INDIVIDUAL CONTRACTS

Tο

#### THE LIFE INSURANCE CORPORATION OF INDIA

1.	In consideration of the Life Insurance Corporation of India having its	Zonal Office at
	in the State of	(hereinafter called 'the
Corpor	ration' which expression shall unless repugnant to the subject or context includ	e its successors and assignees)
having	agreed under terms and conditions of contract (vide its acceptance letter No	
dated_	) made between	
(herein	nafter called the said Contractor) and the Corporation in connection with	
	(hereinafter called 'the sa	id contract') to accept a Deed of
Guaran	ntee and Indemnity as herein provided for	
Rs	from the	
	in lieu of the Security Depo	sit to be made by the contractor
and/or	in lieu of the deduction to be made from the Contractor's bills, for the due full	fillment by the said contractor of
the ter	ms and conditions contained in the said contract, we the	
	(hereinafter ref	erred to as 'the said Bank') and
having	our office at do herek	by undertake and agree to
indemr	nify and keep indemnified the Corporation from time to time to the extent of R	s (Rupees
	only) against any loss or damage, costs	s, charges and expenses caused to
or suffe	ered	

by or that may be caused to or suffered by the Corporation by reason of any breach or breaches by the said contractor in respect of the said contract or of any of the terms and conditions contained in the said contract, or in respect of all its claims for money and / or material found due and recoverable from the said contractor and to unconditionally pay the amount claimed as such by the Corporation on demand and without demur to the extent aforesaid.

We, the said Bank further agree that the Corporation shall be the sole judge of and as to whether the said contractor has committed any breach or breaches of any of the terms and conditions of the said contract and the extent of loss, damage, costs, charges and expenses caused to or suffered by or that may be caused to or suffered by the Corporation from time to time on account thereof and the decision of the Corporation in this respect shall be final and binding on us.3

3. The Corporation shall have the fullest liberty without affecting in any way the liability of the Bank under this Guarantee or Indemnity from time to time to vary any of the terms and conditions of the said contract or to extend time of performance by the said contractor, or to postpone for any time and from time to time any of the



For and on behalf of the LIC of India

(Name and Designation)

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powers exercisable by it against the said contractor and either to enforce or forbear from enforcing any of the terms and conditions governing the said Contract or securities available to the Corporation and the said Bank shall not be released from its liability under these presents by any exercise by the Corporation of the liberty with reference to the matters aforesaid or by reason of time being given to the said contractor or any other forbearance, act or omission on the part of the Corporation or any indulgence by the Corporation to the said contractor or of any other matter or thing whatsoever, which under the law-relating to sureties would but for this provision have the effect of so releasing the Bank from its liability.

It shall not be necessary for the Corporation to proceed against the contractor before proceeding against the Bank and the Guarantee and Indemnity herein contained shall be enforceable against the said Bank, notwithstanding any security which the corporation may have obtained or obtain from the contractor shall at the time when proceedings are taken against the Bank hereunder be outstanding or unrealized. 5. Notwithstanding anything contained in any of the foregoing clauses the liability of the Bank under this \_\_\_\_ (Rupees Guarantee shall not exceed Rs. \_\_\_\_ only). The guarantee shall remain in force . If any extension of time be granted to the contractor, we undertake to extend the guarantee till with the consent of the contractor. Unless a claim or demand under this guarantee is made or presented to the Bank within six months from the expiry date, all the rights of the Corporation under this Guarantee shall cease and the Bank shall be released and discharged from all liability hereunder. 6. We, the said bank lastly undertake not to revoke this guarantee and indemnity during its currency except with the previous consent of the Corporation in writing and agree that any change in the constitution of the said contractor or the said Bank shall not discharge our liability hereunder. For and on behalf of the Bank (Name and Designation) The above Guarantee is accepted by the LIFE INSURANCE CORPORATION OF INDIA.



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#### Dateu.

Note No.1 2: FILL IN AS APPLICABLE

A) For Proprietary concerns:	-			
Shri	son of		resident	of
		at		(hereinafter called 'the said
contractor' which expression and legal representative).				
OR				
B) For Partnership concerns:	-			
1. Shri				
son of				
resident of				
2. Shri				
son of	<del></del>			
resident of				
carrying on business in partr				
		of	at	
	(hereinafter collecti	vely called 'the	contractor' whic	
context requires otherwise i	nclude each of them and the	ir respective hei	irs, executors, ad	ministrators and legal
representatives)				
OR				
C) For companies :-				
M/S / Shriregistered office at		a company unde	er the Companies	s Act 1956 and having its
registered office at	in the state of		(hereinafter	called 'the said contractor'
which expression shall unles	s the context requires other	vise include its s	successors and a	ssignees).
Note No.2:				
22 Please fill in the name and	d address of Bank.			



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# LIFE INSURANCE CORPORATION OF INDIA

(Refer Clause No. 35 of Conditions of Contract)

### FORM OF BANK GUARANTEE IN LIEU OF EARNEST MONEY DEPOSIT

## IN INDIVIDUAL CONTRACTS

То

# THE LIFE INSURANCE CORPORATION OF INDIA

1.	In consideration of the Life Insurance Corporation of India having its	Zonal Office at
	in the State of	(hereinafter called 'the
Corpo	ration' which expression shall unless repugnant to the subject or context in	nclude its successors and assignees)
havin	g agreed under terms and conditions of contract (vide its acceptance letter	No
dated	) made between ②	
(herei	nafter called the said Contractor) and the Corporation in connection with	
	(hereinafter called 't	he said contract') to accept a Deed of
Guara	ntee and Indemnity as herein provided for	
Rs	from tl	ne
	in lieu of the Earnest Mone	ey Deposit to be made by the contractor
for the	e due fulfillment by the said contractor of the terms and conditions contain	ned in the said contract, we the
	(hereinafte	er referred to as 'the said Bank') and
havin	g our office at do	hereby undertake and agree to
indem	nify and keep indemnified the Corporation from time to time to the exten	t of Rs (Rupees
	only) against any loss or damage,	costs, charges and expenses caused to
or suf	fered	

by or that may be caused to or suffered by the Corporation by reason of any breach or breaches by the said contractor in respect of the said contract or of any of the terms and conditions contained in the said contract, or in respect of all its claims for money and / or material found due and recoverable from the said contractor and to unconditionally pay the amount claimed as such by the Corporation on demand and without demur to the extent aforesaid.

2. We, the said Bank further agree that the Corporation shall be the sole judge of and as to whether the said contractor has committed any breach or breaches of any of the terms and conditions of the said contract and the extent of loss, damage, costs, charges and expenses caused to or suffered by or that may be caused to or suffered by the Corporation from time to time on account thereof and the decision of the Corporation in this respect shall be final and binding on us.



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3. The Corporation shall have the fullest liberty without affecting in any way the liability of the Bank under this Guarantee or Indemnity from time to time to vary any of the terms and conditions of the said contract or to extend time of performance by the said contractor, or to postpone for any time and from time to time any of the powers exercisable by it against the said contractor and either to enforce

or forbear from enforcing any of the terms and conditions governing the said Contract or securities available to the Corporation and the said Bank shall not be released from its liability under these presents by any exercise by the Corporation of the liberty with reference to the matters aforesaid or by reason of time being given to the said contractor or any other forbearance, act or omission on the part of the Corporation or any indulgence by the Corporation to the said contractor or of any other matter or thing whatsoever, which under the law-relating to sureties would but for this provision have the effect of so releasing the Bank from its liability.

4. It shall not be necessary for the Corporation to proceed against the contractor before proceeding against the Bank and the Guarantee and Indemnity herein contained shall be enforceable against the said Bank, notwithstanding any security which the corporation may have obtained or obtain from the contractor shall at the time when proceedings are taken against the Bank hereunder be outstanding or unrealized.

5.	Notwithstanding anything contained in any of the foregoing clauses the liability of the Bank under this
Gua	arantee shall not exceed Rs (Rupees
	only). The guarantee shall remain in force
till_	If any extension of time be granted to the contractor, we undertake to extend the guarantee
wit	th the consent of the contractor. Unless a claim or demand under this guarantee is made or presented to the Bank thin six months from the expiry date, all the rights of the Corporation under this Guarantee shall cease and the Bank the released and discharged from all liability becaused.
sna 6.	all be released and discharged from all liability hereunder.  We, the said bank lastly undertake not to revoke this guarantee and indemnity during its currency except with the

previous consent of the Corporation in writing and agree that any change in the constitution of the said contractor or the said Bank shall not discharge our liability hereunder.

For and on behalf of the Bank

(Name and Designation)
The above Guarantee is accepted by the
LIFE INSURANCE CORPORATION OF INDIA.

For and on behalf of the LIC of India (Name and Designation)
Dated:

Note No.1 2: FILL IN AS APPLICABLE

A) For Proprietary concerns:-



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Shri _		son of		resident of
		carrying on busi	ness under the na	me and style of
			at	(hereinafter called 'the said
	actor' which expression segal representative).	shall unless the context re	equires otherwise	include his heirs, executors, administrators
OR				
B) Fo	r Partnership concerns:-			
1.	Shri			
son o	f			
reside	ent of			
2.	Shri		<del></del>	
son o	f			
reside	ent of			
-	ing on business in partne	•	•	
			of	at
			•	contractor' which expression shall unless the
	•	clude each of them and the	neir respective he	irs, executors, administrators and legal
repre	sentatives)			
OR				
C) Fo	r companies :-			
M/S/	/ Shri		a company und	er the Companies Act 1956 and having its
regist	tered office at	in the state of		(hereinafter called 'the said contractor' successors and assignees).
Note	No.2:	·		- •
	ease fill in the name and	address of Bank.		
ANNE	EXURE – 'D'			



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# BANK ACCOUNT AND OTHER DETAILS:

To be submitted along with Tender copy

SI.	Description	Details
No		
01	Name of the Company/Firm/Entrepreneur	
	Institute, etc	
02	Address	
	Phone Number	Mobile:
		Land Line:
	E-Mail ID	
03	Bank Account Details:	
A.	Account No	
В.	Type of Account	
C.	IFSC/RTGS Code	
	(Enclose Xerox copy of the Cheque leaf)	
04	PAN No *	
05	TIN Registration No.*	
06	GST IN Registration No.*	

I declare that, the above furnished information is correct. During the contract period, if any changes took place in the above said information, the same will be informed with the valid reasons.



LIFE INSURANCE CORPORATION OF EAST CENTRAL ZONAL OFFICE, ENGG. DEPTT. (4<sup>TH</sup> R) "JEEVAN DEEP", EXHIBITION ROAD, PATNA – 800 01 PHONE: 0612-2501118/2503014/2501103, E-mail: ecz\_engg@licindia.com
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# SPECIAL CONDITIONS OF CONTRACT

Re: E-Tender for Annual Rate Contract for Supply, Installation, Testing & Commissioning of Online UPS system and CAMC of UPS at various offices under Divisional Offices under East Central Zonal Office, Patna FY 2023-24

#### 1.EARNEST MONEY:

The e-tender shall accompany an Earnest Money Deposit of Rs.1,02,000.00 in the form of Original Demand Draft/ Pay Order /Banker's Cheque/ NEFT receipt towards EMD & tender fee. Tender not accompanied by E.M.D. shall be rejected. The EMD will be refunded to the unsuccessful tenderer. The EMD of successful tenderer will be converted to Security. 50% of the same will be released after DLP period of Two year and balance 50% will be released after successful completion of CAMC period(5 years)

# 2.SECURITY DEPOSIT:

An amount equal to 5% of the accepted tender amount shall be deducted from bills towards Security Deposit. 50% of the security deposit so deducted from the bill shall be refunded after successful completion of the defects liability period of Two years for UPS and Battery Bank including batteries and on satisfactiry services during that period and entering into AMC with concerned office after DLP is over. 50% SD will be refunded after successful completion of CAMC period.

### 3. VALIDITY AND CONTRACT PERIOD:

The tender shall be valid for the period for our consideration for a period of 90 days from the last date of receipt of the tender.

The rates quoted shall be valid for the period of one year from the date of opening of the Price Bid.

# 4.COMPLETION TIME:

As per Appendix to the Conditions of the Contract

### **5.TERMS OF PAYMENT:**

First & final payment shall be made on SITC of UPS system at site & satisfactory testing of UPS in the presence of LICI representative.

# 6.TAXES, OCTROI & OTHER DUTIES:



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The rates quoted shall be exclusive of GST. GST shall be as extra as applicable. The rate shall be quoted as FOR destination basis.

Deduction at source of Income Tax, TDS on works contract etc shall be made by LIC of India as per the provisions prevailing from time to time from the bills and remitted to the concerned Taxation Authorities / State Government on behalf of the contractor.

# 7. Water & Electricity Charges:

Recovery of water and electricity cahrges @0.5% of the gross value of work done from Contractor's bill if used from LIC source.

8. It will be responsibility of the contractor to ensure that there should not be any damage to LIC properties & adjacent during the loading or unloading of UPS systems. The Contractor shall fully indemnify the Employer and hold him harmless in respect of all and any expenses arising from any such injury or damage to persons or property as aforesaid and also in respect of all and any claim made in respect of any injury or damage under any acts of Government or otherwise and also in respect of any award or compensation or damages consequent upon such claim.

# 9.GUARANTEE AND MAINTENANCE:

The guarantee period of UPS & battery bank shall be 2(two) years. The contractor shall be responsible for any defects in manufacturing, installation and performance and rectify the same at their cost to the entire satisfaction of LICI for a period of 36 months from the date of commissioning and handing over of the UPS system in satisfactory working conditions.

# 10.STORING OF THE EQUIPMENTS:

LICI will provide space for storing of the equipment. However, safety and security of all materials stored will be the responsibility of contractor till the equipments are handed over in working condition.

### 11.TRAINING TO STAFF:

The tenderer will have to train personnel of LICI regarding operation of UPS system. Verbal and written operating and maintenance instruction shall be supplied at the time of handing over of UPS system without any extra charges.

# 12.FREE SERVICE:

During the guarantee period of two years the UPS system shall be serviced at least 4 times per year free of cost to LICI and service report duly signed by officer in charge shall be submitted while requesting the release of Security Deposit. Any adjustments required shall be carried out to maintain the unit in good working condition. Any breakdown during this period shall also be attended by the contractor free of cost to LICI. The condition of batteries shall be checked and crrective action shall be taken. In case there is any major breakdown in the UPS system and the same needs to be taken at your factory / service station then tenderer shall provide standby UPS system.



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13. Earnest Money Deposit of the successful tenderer shall be laible to be forfeited if the vendor fails to receive the order within SEVEN days of intimation.

### 14.TESTING OF EQUIPMENTS:

On placing the order with the lowest tenderer they shall arrange for Testing of all UPS SYSTEM OF EACH CAPACITY at the testing centre as mentioned at clause no.3.4, Technical Specifications, Testing of UPS System, at agency's own cost and furnish the test certificate along with delivery of each UPS system. If the parameters of UPS system shall be delivered found to be sub-standard than specified UPS system, shall be returned till the corrective action is taken thereof at the agency's own cost. If the UPS is supplied without test Certificate, no payment will be made.

### 15. COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT:

After expiry of Defect Liability Period of Two years, the tenderer will have to enter into Annual Maintenance Contract for comprehensive maintenance of UPS system for the period of FIVE YEARS at the accepted rate, terms & condition. The UPS System shall be serviced once in a THREE MONTH in addition to attend the emergency call. The payment shall be released on quarterly basis on rendering services to our satisfaction and as per service challan duly signed by the concerned LICI officials. In case there is any major breakdown in the UPS system and the same need to be taken at your factory/ service station then tenderer shall provide standby UPS system. Tenderer shall submit the name, telephone numbers and mobile numbers of their authorized Engineers / Technicians who will attend the breakdown calls/ carry out servicing. The performance of UPS system as well as the after sales services provided by the vendor shall be reviewed after expiry of three years and suitable action shall be taken for renewal of AMC thereafter. The rate quoted by you will be exclusive of GST.

16.APPROVED MAKE OF BATTERY:

EXIDE/ PANASONIC/ GLOBAL-YUVASA/ HBL-NIFE/ AMARA RAJA/ POWERON/ AMCO



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# APPENDIX TO CONDITIONS OF CONTRACT

Re: E-Tender for Annual Rate Contract for Supply, Installation, Testing & Commissioning of Online UPS system and CAMC of UPS at various offices under Divisional Offices under East Central Zonal Office, Patna FY 2023-24

PERIOD FOR COMPLETION : 60 days

EARNEST MONEY DEPOSIT : Rs.1,02,000 (Rupees One lakh two thousand only)

S. No.	Clause No.	Description	Remarks	
110.	110.			
1		Date of commencement	Either 15(Fifteen) days from the date of Acceptance Letter issued to the contractor.	
			OR	
			The day on which the contractor is instructed to take possession of the site, whichever is earlier.	
2		Date of completion	60 days	
3		Liquidated Damages	1% of the contract sum per week subject to a maximum of 10% of contract sum.	
4		Period of Final Measurement	60 (sixty) days.	
5		Minimum value of work for interim certificate.	For each and every consignment supply, only final bill will be paid.	
6		Period of honouring interim certificate	90 days from the date of submission of final measurement with details.	
7		Defects Liability Period	02 years after virtual completion of work.	
8		Security Deposit	The SD will be deducted @5% from bill amount for SITC of UPS with battery bank. The 50% SD will be released after Virtual completion of work and balace 50% will be refunded after DLP+CAMC.	



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EMD for L-I vendor will be converted to Security deposit which will remain with us for the entire Contract period (2 year DLP+ 5 YEARS CAMC) which will be refunded after successful Completion of total 7 years (2 years DLP+ 5 years CAMC). Alternatively the amount in lieu of SD may be refunded on submission of Bank Guarantee of equal amount for the entire period (7 years) plus 6 months grace period for claim.

		submission of Bank Guarantee of equal amount for the entire period (7 years) plus 6 months grace period for claim.
9	Performance Guarantee	Not applicable
10	Contractor's All Risk Policy	CAR policy shall be for full contract value whereas the third party liability shall be for minimum 7.5% of the Contract amount and shall remain enforce for the entire period of contract. The Insurance policies shall be taken from any approved scheduled General Insurance Company and shall be in the joint name of the LICI and the contractor and shall remain valid till the entire contract period.  Insurance Policies (Workmen's Compensation and Contractors All Risk with Third Party Insurance Policies) if not extended on time by construction associates, then LIC shall proceed with extension of this insurance policies. Please note that if the insurance is not taken in time or not renewed and submitted to office 15 days before the expiry of the policy, then LICI shall renew the insurance policy and the premium charges will be recovered along with a amount of Rs.10,000/- as administrative charges+25,000/- as penalty for each extension of such policy from construction associates/ contractor's bill.
11	Workmen's Compensation Policy	This shall be as mutually decided by department and contractor depending on labour ( skilled

Contractor Addl. Executive Director

/unskilled) involvement.



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12	Recovery of charges against Electricity & Water from Contractors Bill(s)	0.5% on the gross value of the Work done.
13	NO CLAIM CERTIFICATE CUM RECEIPT	"Received Rupees



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# **TECHNICAL SPECIFICATIONS**

Re: E-Tender for Annual Rate Contract for Supply, Installation, Testing & Commissioning of Online UPS system and CAMC of UPS at various offices under Divisional Offices under East Central Zonal Office, Patna FY 2023-24

NOTE: The Tenderer shall go through the specifications given in here under and specify their specification. If it is not mentioned then it shall be treated that the UPS offered comply the LICI specification.

### **GENERAL**

This specification defibes the electrical and mechanical characteristics and requirements for a continuous duty, highly reliable, solid state in Un-interruptible Power Supply Systems. The UPS shall provide high quality AC power for sensitive electronic equipment loads. It should also supply clean power automatically without any break in the supply in the absence of raw power. Under no conditions will the protected system get direct supply from the raw mains unless there is fault in the protected system.

All the manufacturers have to ensure that their product confirm to the specifications set in this documents, failure to do so will result in the disapproval of the product.

# SYSTEM DESCRIPTION

- 1.2.1 Design Requirements UPS Module
- A. Voltage

Input/ Output specifications of the UPS shall be as under:

(a) 3KVA UPS system

Rectifier Input (175-300 Volts - Single Phase)

Bypass Input (230 Volts – Single Phase)

Output - 220/230/240 V, 1 Ph, 50Hz (SELECTABLE)

(b) 6KVA UPS system

Rectifier Input (175-300 Volts - Single Phase)

Bypass Input (230 Volts - Single Phase)



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Output - 220/230/240 V, 1 Ph, 50Hz (SELECTABLE)

# B. Output Load Capacity

Specified output load capacity of the UPS shall be as under

- (a) 3.0 KVA
- (b) 6.0 KVA

# 1.2.2 Modes of Operation:

The UPS shall be designed to operate as an ON LINE Double conversion type system in the following modes:

- A. Normal The critical AC load is continuously supplied by the UPS Inverter. The rectifier/ charger derives power from AC input source and supplies DC power to the Inverter while simultaneously load charging power to reserve battery also.
- B. Emergency Upon failure of AC Input power, the critical AC load is supplied by the Inverter, which without any switching obtains power from the battery. There shall be no interruption in power to the critical load upon failure or restoration of the AC input source.
- C. Recharge Upon restoration of AC input power during the emergency mode of operation, the rectifier/charger shall automatically restart, walk-in and gradually accume the inverter and battery recharge loads.
- D. Bypass If the UPS taken out of service for maintenance or repair or should the inverter overload capacity be exceeded, static transfer switch shall perform reverse transfer of the load from the inverter to bypass source with no interruption in the power to the critical AC load. The static bypass switch should be double ended. The static switch should also have an overload rating of 14 times of rated load for 10 milli sec (½ cycles). The use of this static switch is at the discretion of the owner.

A manually operated Maintenance Bypass Switch should be incorporated into UPS cabinet that will connect the load to AC power source bypassing the rectifier/charger, inverter and static transfer switch.

# 1.2.3 Battery Requirements:

Battery should be designed to provide back-up as specified in the Schedule of Quantities on computer load. Battery should be imported sealed maintenance free type. The UPS module should have the Battery Circuit Breaker. When this breaker is opened no battery voltage should be present in the circuitry of UPS. The UPS module should be automatically disconnected when the battery reaches to the minimum discharge voltage level or when signaled by other control functions.

# 2.1.1 Materials



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All materials of the UPS shall be new, of current manufacture, high grade and free from all defects and shall not have been in prior service except as required during factory testing.

# 2.1.2 Construction and Mounting

The UPS unit comprised of input isolator, rectifier/ charger, inverter, static transfer switch, maintenance bypass switch and static bypass input switch shall be housed in a free standing steel enclosure with key lockable doors. Front access shall be required for expedient servicing, adjustments and installation. The enclosure will be built to comply with IP20 when the doors are open. The UPS shall be constructed of replaceable sub-assemblies. Printed circuit assemblies shall be plug-in type/ screwable.

# 2.1.3 Cooling

Cooling of the UPS shall be by forced air. Low velocity fan shall be used to minimize audible noise output. Fan power shal be provided by the UPS output.

# 2.1.4 Cable Entry

Standard cable entry for the UPS module shall be through the enclosure or from bottom.

# 2.2 Components

# 2.2.1 Rectifier/ Charger

## A. General

The term rectifier/ charger shall denote the solid-state equipment and controls necessary to convert incoming AC power to regulated DC power for input to the inverter and for battery charging. The rectifier should be IGBT based PWM rectifier with power factor correction and harmonic control.

# B. Input current Walk-in

The rectifier/ charger shall contain time walk-in circuit that causes the unit to gradually assume the load over as 30 sec interval after input voltage is applied.

# Fuse Failure protection

Power semi-conductors in rectifier/ charger shall be fused with fast acting fuses so that loss of any power semi-conductor shall not cause cascading failures.

# DC Filter

The rectifier/ charger shall have an output filter to minimize ripple voltage into the battery. Under no conditions shall ripple voltage into the battery exceed 1% RMS. The filter shall be adequate to ensure that the DC



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output at the rectifier charger will meet the input requirements of the inverter. The inverter shall be able to operate rom the rectifier charger with the battery disconnected.

# E. Battery Recharge

In addition to supply power for the inverter load, the rectifier/ charger shall be capable of producing battery-charging current to recharge the batteries. After the battery is recharged, the rectifier/ charger shall maintain the battery at full charge until the next emergency operation. Both float and recharge voltages shall be adjustable. Charge voltage can also be manually controlled.

# Inverter

A. The term inverter shall denote the solid-state equipment and controls to convert DC power from the rectifier/ charger or battery regulated AC power for supporting the critical load. The inverter shall be IGBT based sine wave pulse width modulated (PWM) free frequency design capable of providing the specified AC output.

# B. Overload capacity

Inverter shall be capable of supplying current and voltage for overloads exceeding 100% and up to 150% of full load current for min. of 1(one) minute. A status indicator and audible alarm shall indicate overload operation. The UPS shall transfer the load to bypass when overload capacity is exceeded.

# Fault clearing and current limit

Without bypass supply available, the inverter shall be capable of supplying an overload current of 150% of its full load rating for 60 sec. For greater currents, or longer time duration, the inverter shall have electronic current limiting protection to prevent damage to components. The inverter shall be self-protecting against any magnitude of connected output overload.

# **Output Frequency**

The output frequency of the inverter shall be controlled by an oscillator. The oscillator shall hold the inverter output frequency to  $\pm -0.1\%$  for steady state and transient conditions.

- E. The output harmonic shall not be greater than 2% with linear load and shall be max. 5% at 100% non-linear load. The UPS shall be capable of handling load of crest factor more than 3:1.
- F. Inverter efficiency shall be greater than 92% at 100% load.

# **Display and Controls**

# A. Monitoring and Control



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The UPS shall be provided with a microprocessor based unit status display and controls section designed for convenient and reliable user operation. A system power flow diagram, a percentage load display shall be provided as part of the monitoring and controls sections, which depicts a single-line diagram of the UPS. Illuminated visual indicators shall be of the long-life light-emitting diode (LED) type. All of the operator controls and monitors shall be located on the front of the UPS cabinet. The monitoring functions and indicators (each alarm and notice conditions shall be accompanied with an audible alarm).

NORMAL: This symbol shall be lit when the UPS is operating in Normal Mode.

BATTERY – This symbol shall be lit when the UPS is operating in battery mode.

BYPASS - This symbol shall lit when the UPS is operating in bypass mode.

WARNING – This symbol shall lit when the system needs attention. Some notices shall be displayed and shall include

- a) UPS on Maintenance Bypass
- b) Battery on load
- c) Load on Bypass
- d) Mains Failure

ALARM: This symbol shall light when a situation requires immediate attention. All alarms shall be accompanied by the Audio alarms. Alarm shall include -

- a) Emergency Stop
- b) Inverter Off or Failed
- c) Over-temperature
- d) Overload
- e) Battery C.B. Open
- f) Rectifier Off or Failed
- g) Input C.B. Open
- h) Output C.B. Open
- B. Power Status Diagram:



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A mimic panel shall be provided to depict a single line diagram of the UPS. Indicating lights shall be integrated within the single line diagram to illustrate the status of the UPS. The six LEDs shall indicate the following status.

Input Voltage OK

Bypass Voltage OK

Load on Bypass

Load on Inverter

Battery Voltage OK

Inverter Output OK

# A. General:

A static transfer switch and bypass transfer switch shall be provided as an integral part of the UPS. The Static switch shall be a Bi-directionsl naturally commutated high-speed static (SCR type) device rated to carry full load current continuously.

The static transfer switch control logic shall contain an automatic transfer logic circuit that senses the status of the inverter logic signals, and operating and alarm signals. This control circuit shall provide an uninterrupted transfer of the load to an alternate bypass source, without exceeding the transient limits, when an overload or malfunction occurs within the UPS, or bypassing the UPS for maintenance.

# B. Uninterrupted Transfer:

The transfer control logic shall automatically turn on the static transfer switch, transferring the critical AC load to the bypass source, after the transfer logic senses any of the following conditions.

Inverter Overload capacity exceeded.

UPS fault conditions.

# C. Uninterrupted Retransfer:

Retransfer of the critical AC load from the bypass source to inverter output shall be automatically initiated unless inhibited by manual control.

Maintenance Bypass Isolator

A manually operated maintenance bypass isolator shall be incorporated into the UPS cabinet to directly connect the critical load to the input AC power source, bypassing the rectifier, inverter and static transfer switch.



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# Field Quality Control

The following inspections and test procedures shall be performed by factory trained field service personnel during UPS startup.

# 3.1.1 Visual Inspection

Inspect equipment for sign of damage

Inspect cabinet for foreign object

Verify neutral and ground conductors are properly sized and configured.

Inspect battery cases.

Inspect battery for proper polarity.

Verify all printed boards are configured properly.

# 3.1.2 Mechanical Inspection

Check all control wiring connections for tightness

Check all power wiring connections for tightness

Check all terminals, screws, nuts, and / or spade lugs for tightness.

# 3.1.3 Electrical Inspection

Check all fuses for continuity

Confirm input voltage and phase rotation is correct

Verify control transformer connections are correct for the voltage being used

Assure connections and voltage of the battery strings.

# Documentation

The manufacturer shall supply minimum 2 sets of an installation manual with installation start-up trouble shooting guide and operation instruction of the specified system.

Service Capability



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The manufacturer should have the independent service setup with engineers who are fully trained in the UPS. All the service personnel should have the latest power measurement equipments, which will be required furing the process of site study, installation and maintenance. The manufacturer should have ISO 9001 or equivalent certification to ensure the quality of the service.

All the manufacturers' service enginers should have mobile telephone for instantaneous communications as and when the need arises. The manufacturer should have the capability to provide consultancy on the aspect of power quality as and when required for which they should have their own power solutions. (Product and technology)

The response time to attend the complaint shall be less than four hours in normal working hours. The manufacturer should have its own facility to provide  $24 \times 7 \times 365$  days services support with a response time of 4 hours on lodging of complaint during office hours.

# **Testing of UPS System**

The testing of each UPS shall be carried out through any one of the following agencies and test certificate with each UPS shall be attached. No extra charge will be paid on this account.

- a) National Test House
- b) ERTL
- c) ETDC
- d) Govt. Engg. College
- e) NIT
- f) IIT
- g) Regional Testing Centre
- h) CPRI
- I) SAMEER

The vendor is required to provide e-mail address of concerned lab where tests are carried out along with contact no. for necessary verification at our end.

All parameters specified in the tender shall be tested and confirmed.

### Maintenance



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The preventive maintenance of the UPS system shall be carried out once in a THREE MONTHS at a mutually agreed date & time. The vendor should plan the program of preventive maintenance well in advance in consultation with concerned officials of LICI

# Technical Data Sheet - On line Double Conversion UPS

Technology : Technology should be digitally controlled, IGBT based double conversion on line VFI according to IEC 62040 - 3 specification.

Α	INPUT		Vendor to specify
1	Input voltage	3 KVA AND 6KVA 160 260V, 1 phase	
2	Input frequency	50Hz +/-5%	
3	Input Power factor at nominal voltage and full load	>0.90 at 100% load condition >0.85 at 10% load condition	
4	Nominal Input current during Normal running condition i.e., at 230V input phase voltage, 0.8 p.f. At 100% load condition.	3KVA – 13.43amp +/- 5% 6KVA – 26.08mp +/- 5%	
5	Power walk-in period	30 sec	
6	Input circuit	IGBT based PWM rectifier	
7	Total harmonic distortion (THD) at input side	<10% at 100% load.	
В	ОUТРUТ		
1	Rated voltage	230+/-1% V 1 phase	
2	Rated current at rated 230V output voltage and 0.8 p.f. at 100% rated output.	3 KVA – 10 amp +/- 1% 6 KVA – 19 amp +/- 1%	
3	Rated frequency	50 Hz +/- 0.1%	
4	Max. rate of change of frequency	0.1 Hz per second	
5	Output waveform	Pure sine wave	

B OUTPUT Vendor to specify	
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6	Output power factor	Better than 0.80 at 100% rated output
7	Output power factor support capability	0.8 lag to unity
8	Internal oscillator stability	+/- 0.1%
9	THD at Output side a) Linear load b) Non-linear load (Crest factor of 3:1)	< 2% for a 100% linear load < 5% for a 100% non-linear load
10	Crest Factor	3:1
11	Overload rating	For 3KVA 110% for 10 min 125% for 1 min 150% for 3 sec  For 6KVA 110% for 3 min 125% for 30 sec 150% for 1.5 sec
12	Overload trip	For 3KVA 125% for 1 min For 6KVA 125% for 30sec
13	Inverter Efficiency	Min 92%
14	Overall Efficiency	At 100% load – 92% At 50% load - 85%(min)
15	Current limit short	Set at 150% of the output power

С	DC CHARACTERISTICS	Vei	ndor to specify
1	Nominal DC bus voltage (Total)	a) 3.0KVA minimum 72- 96V DC b) 6KVA minimum 120V-192V	



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2	Battery isolation	Manual setting for enable/ disable function in LCD display.	
3	End of discharge voltage	In Vdc	
4	Charge type of UPS	IGBT	
5	Voltage tolerance	+/- 1%	
6	DC ripple	< 1%	
7	Battery charging current limit (or range)	In Adc	
8	No. of 12V SMF battery with AH rating for each capacity of UPS	For 3 KVA 6 KVA	
		( As per Vah)	
9	VAH Rating	Minimum VAH rating 3 KVA – 2496VAH 6 KVA – 4992VAH	
10	Make of Battery:- EXIDE, GLOBAL YUASA, PANASONIC, AMARON – AMARARAJA,		

D	CONTROLS	Vendor to specify
1	Charger input MCB	
2	Battery circuit breaker (UPS should still function even with disconnection of breaker).	
3	Inverter output electronically protected for overload and short circuit	
4	Bypass line setting & control (Enable/ Disable option)	
5	Alarm acknowledge / Reset button	
6	Inverter on/ off control through LCD function	
7	Control Power for PCBs should be derived from dual power supply i.e., from battery source or from inverter- specify details	
E	MEASURING INSTRUMENTS	Vendor to specify
1	LCD panel for Measuring Output voltages, Output level and Frequency, Battery Voltage and Charging/ Discharging level.	
2	LCD panel should display status of the Battery capacity level in % and battery voltage.	
F	PROTECTIONS	Vendor to specify



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1	RC surge suppressor, EMI/RFI filters.
2	Under voltage & Over voltage on input side
3	Phase loss & short circuit on input side
4	Snubber circuit for device dv/ dt protection
5	Charger input current limit
6	Electronic trip protection for short circuit, overload fuses for inverter circuit.
7	Battery current limit (Over & Under charging of batteries)
8	DC over voltage
9	Low battery
10	Semiconductor fuses at inverter output
11	Overload & Short Circuit Protection
12	Over temperature for the inverter
13	Control circuit protection

G	INDICATIONS (ALARMS)	Vendor to specify
1	Overload (if load exceeds 100%)	
2	Low battery	
3	Battery enable / disable details in display.	
4	Battery on load	
5	Mains failure	

Н	MISCELLANEOUS		Vendor to specify
1	Isolation Transformer	Galvanically isolated, isolation transformer of suitable rating to be provided at input side of the UPS (inbuilt to the UPS in single cabinet).	
2	Ventilation	Forced Air Cooling with Integral fans.	
3	Protection Level (With front door open)	IP20/IP 21	
4	Noise Level	< 55 dB at 1.0 Mtr.	
5	Certification	ISO 9001:2000	



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Document should be submitted. (Offered model to be highlighted). Make in India product required.

# **LOCATION OF B.O/SO**

# 1.CUTTACK D.O

Sl.no	NAME OF LOCATION	6KVA-Qty	3KVA-Qty
1	Rairangpur B.O	01 No.	
2	Paradeep BO	01 No.	
3	CBO-III, Gandarpur	01 No.	
4	STC, Cuttack	01 No.	
5	Anugul B.O	01 No.	
6	Balasore BO	01 No.	
7	Kendrapara B.O	01 No.	

# 2.BHAGALPUR D.O

Sl.no	NAME OF LOCATION	6KVA-Qty	3KVA-Qty
1	Dumka B.O	1 no	
2	Banka B.O,	1 no	
3	Sahibgani	2 no	
4	Foebesgani	1 no	
5	Munger B.O	2 no	
	Deoghar BO	2 Nos	
	Raniganj S.O		1 no
	Jogbani SO		1 no

# 3.MUZAFFARPUR D.O

Sl.no	NAME OF LOCATION	6KVA-Qty	3KVA-Qty
1	Mothihari B.O	1 no	
2	Sitamarhi B.O	1 no	
3	Muzaffarpur BO-I	1no	
4	Muzaffarpur BO-II	1no	
5	Muzaffarpur BO-III	1no	
6	Darbhanga B.O	1no	
7	Jhanjharpur B.O	1no	
8	Laherisarai B.O	1no	



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9	Raxaul B.O	1no	
10	Motipur B.O	1no	
11	CAB	1no	
12	Bagaha B.O	1no	
13	CLIA Bhagwanpur		1no
14	SO Sheohar		1no
15	SO Ahiyapur		1no
16	SO Chakia		1no

# **4.SAMBALPUR D.O**

Sl.no	NAME OF LOCATION	6KVA-Qty	3KVA-Qty
1	Uditnagar BO Odisha	1 no	
2	Bapalli S.O, Odisha		1 no
3	Dungripalli SO, Odisha		1 no
4	Rairakhole S.O, Odisha		1 no
5	Sonepur SO, Odisha		1 no

# **5.BHUBANESWAR D.O**

Sl.no	NAME OF LOCATION	6KVA-Qty	3KVA-Qty
1	CLIA S.O Odisha		1 no
2	Customer Zone, Odisha		1 no

# 6.PATNA D.O-1

Sl.no	NAME OF LOCATION	6KVA-Qty	3KVA-Qty
1	Kankarabagh B.O	1 no	
2	Jehanabad B.O	1 no	
3	Patna Branch-1	1 no	
4	Hajipur B.O	1 no	
5	CAB, Patna	2 no	
6	Sipara SO		1 no
7	Lalgunj SO		1 no
8	Phulwari SO		1 no

# 7. BEGUSARAI D.O

Sl.no	NAME OF LOCATION	6KVA-Qty	3KVA-Qty
1	Shahpur Patory SO		1 no.



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# 8. PATNA DO-2

Sl.no	NAME OF LOCATION	6KVA-Qty	3KVA-Qty
1	Danapur B.O	1 no.	
2	Siwan B.O	1 no.	
3	Chapra B.O-I	1 no.	
4	Chapra B.O-II	1 no.	
5	Gopalgunj BO	1 no.	
6	Sasaram	1 no.	
7	Marhowrah	1 no.	
8	Maharajanj BO	1 no.	
9	CLIA Patna		1no
10	Ekma SO		1 no.

# 9. BERHAMPUR DO

Sl.no	NAME OF LOCATION	6KVA-Qty	3KVA-Qty
1	Koraput B.O	1 no	
2	Polosara S.O		1 no.



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### SPECIAL TERMS AND CONDITIONS

- 1. Rates quoted should be valid for minimum period of 90 days from the last date of submission of tender.
- 2. Rates quoted should be inclusive of all taxes excluding GST.
- 3. Rates quoted are FOR destination basis and no extra charges shall be paid on this account.
- 4. UPS and battery bank including batteries will be under **Guarantee for a period of 24 months** from the date of satisfactory installation and handing over.
- 5. On expiry of the warranty period, the UPS will automatically come under AMC. Terms and conditions of the AMC will be as per the special condition for AMC given below.
- 6. The delivery of UPS should be made within 60 days at our offices. In case the UPS is not delivered by this date, necessary liquidated damages shall be imposed @1% per month of delay to be computed on per day basis, not to exceed 10% of the tendered value of work (Individual Work order)
- 7. No advance for this contract will be paid. On successful installation, testing of UPS system in the presence of LIC Engineer/ representative first & final payment shall be released. 5% amount shall be retained as security deposit by us and will only be refunded after satisfactory completion of DLP of two years plus CAMC period of 5 years.
- 8. LIC reserves the full rights to reject one or all the quotations of issue part/full quantity orders without assigning any reasons thereof. LIC also reserves the right to distribute the work among various at the sole discretion of the Addl. Executive Director.
- 9. Quantity mentioned in this enquiry is tentative and may increase / decrease at the time of placing orders. The order shall also be placed in phases as & when the requirement crops up.
- 1. The concerned technician assigned for respective D.O. should attend defects of UPS within 24 hrs. for Branch office within the DO HQ and within 48hrs. for the B.Os outside Divisional Head quarter. If the defect is not attended and rectified within the above specified time then a penalty of Rs.200/- per day per UPS will be deducted from the bill of the agency. If the defect is not attended and rectified within the above specified time then a penalty of Rs.200/- per day per UPS will be deducted from the bill of the agency. In case,



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considering quantum of defects, the UPS are required to be shifted to agency's workshop for repairing, one serviced UPS of adequate capacity has to be provided by the agency. However in case the service UPS is provided as standby before the expiry of stipulated response time, no penalty will be charged.

### SPECIAL CONDITION OF CAMC

- **2.** The units shall be serviced once in three months for preventive maintenance and service reports duly signed by the user office. The scope of P.M is as per Annexure 'P' attached.
- 3. The concerned technician assigned for respective D.O. should attend defects of UPS within 24 hrs. for Branch office within the DO HQ and within 48hrs. for the B.Os outside Divisional Head quarter. If the defect is not attended and rectified within the above specified time then a penalty of Rs.200/- per day per UPS will be deducted from the bill of the agency. If the defect is not attended and rectified within the above specified time then a penalty of Rs.200/- per day per UPS will be deducted from the bill of the agency. In case, considering quantum of defects, the UPS are required to be shifted to agency's workshop for repairing, one serviced UPS of adequate capacity has to be provided by the agency. However in case the service UPS is provided as standby before the expiry of stipulated response time, no penalty will be charged.
- **4.** Payment will be made on quarterly basis from concerned D.O./ B.O. after getting proper acknowledgement from the respective Branch Office that maintenance is done satisfactorily.
- **5.** Company has to give proper authorization of Engineer/Supervisor responsible for maintenance of units and maintain proper record of services rendered.
- **6.** In case service is not done/ defects not attended within requisite time period, necessary recovery from contract money will be made as deemed fit.
- 7. Rates quoted for CAMC shall be valid for a term of FIVE years from the date of commencement of Comprehensive Annual Maintenance Contract after guarantee period of 24 months. Scope of CAMC will include comprehensive maintenance including cost of repair/ replacement of any parts excluding repair/ replacement of batteries. The UPS supplier will. However, ensure the performance of the warranty of the batteries, if and when required.



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# COMPREHENSIVE ANNUAL PREVENTIVE MAINTENANCE SERVICE DELIVERABLE

Sl. No.	ACTIVITY	DESCRIPTION	
1.	Perform visual inspection	The CAMC contractor will inspect the UPS and ensure all system component are clean and functioning as they should be. Appropriate action will be taken as necessary, Amc service provider will clean, dust and debris from the UPS.	
2.	Perform environment inspection	The CAMC contractor will verify and document that system environment is within specified operating condition includin but not limited to room temperature, air flow, dust contamination etc.	
3.	Perform electronic inspection	Inspect all power and control wire termination points as well as all UPS and battery system component. Verify proper air flow, fans, capacitors, check all power and control connection for proper torque and signs of overheating.	
4.	Battery inspection & testing	CAMC contractor will check temperature of battery terminals, all inter cell connection and re-torque the same. AMC contractor will perform battery discharge test, verify proper transfer to battery operation.	
5.	Complete functional verification	The voltage and current to and from the UPS unit will be verified and recorded. Verified proper transfer of battery operation and test the static bypass.	
6.	Deliver documentation	The CAMC service provider will deliver site report to LICI documenting UPS status, recording on site activities and recommending additional service activities as needed resulting from PM activities listed above.	
7.	Scope of responsibilities	CAMC contractor responsibilities:  I) Meet the LIC service schedule date. ii) Perform all of the maintenance servicve tasks. iii) Submit the service & maintenance report to LICI. iv) Ensure all action items are completed. v) A log book for each UPS should be maintained mentioning serial no. and capacity of UPS. In the log book, records of PM done with date to be recorded. Also serial nos. of SMF	



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batteries connected with UPS system should be mentioned. The log book should be got signed by concerned LICI officials in each P.M visit.

# LICI responsibilities:

- I) Provide date and time when the scheduled work can be performed.
- ii) Facilitate the site access for CAMC contractor's service personnel.
- iii) Provide an on site point of contact.
- iv) Sign the completed maintenance forms.
- v) Sign the log book after checking and recording of batteries change, if any, between the consecutive P.M.



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# **BILL OF QUANTITY**

E-Tender for Annual Rate Contract for Supply, Installation, Testing & Commissioning of Online UPS system and CAMC of UPS at various offices under Divisional Offices under East Central Zonal Office, Patna FY 2023-24

Sl.no.	Brief Description	Unit	Qty	Rate (Rs)	Amount(Rs)
1	Supply, installation, testing & commissioning of 6KVA ON LINE UPS as per technical specification including Supply, installation, testing & commissioning of SMF battery bank for 6 KVA UPS as per approved makes to provide 30 minutes power back up (minimum 4992 VAH) along with suitable size battery stand.		44		
2	Supply, installation, testing & commissioning of 3 KVA ON LINE UPS as per technical specification including Supply, installation, testing & commissioning of SMF battery bank for 3 KVA UPS as per approved makes to provide 30 minutes power back up (minimum 2496 VAH) along with suitable size battery stand.		19		
				Total (Rs)	

Note-GST will be applicable extra as per prevailing rate based on work contract. As on date the work contract rate is 18%.



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( Write in Words also)

Signature

# 1) Details of fixed Buy back Value of old & battery:

SL	Description	Unit	Qty	Rate
NO				
1	Buy back value of old. Unserviceable 5/6/7.5 KVA UPS irrespective of make from B.O/SO/DO	NO	1	6000.00
2	Buy back value of old. Unserviceable 2/3 KVA UPS irrespective of make from B.O/SO/DO	NO	1	3000.00
3	Buy back value of old unserviceable SMF battery of following AH as is where basis			
а	26/28 AH	NO	1	400.00
В	42AH	NO	1	700.00
С	65AH	NO	1	1800.00

Note-GST will be applicable extra as per prevailing rate based on works contract. As on date the work contract rate is 18%.



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# <u>COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT</u> CHARGES (FIXED RATE OF CAMC AFTER DLP OF TWO YEARS)

LIC of India has fixed the following rates for CAMC for five years after DLP of 2 years.. The following CAMC rates are exclusive of GST, which will be reimbursable on submission of proof of payment to the authorities for the subject work. Any Variation in the tax structure as per the prevailing government rules and regulation will be considered and paid /recovered. Please note that the concerned technician assigned for Divisional head quarter should attend the defects of UPS within 24 hrs. for Branch Office and rectification can be completed within the specified time. If fail then a penalty of Rs.200/- per day per UPS will be deducted from the bill of the agency. In case, considering quantum of defects, the UPS are required to be shifted to agency's workshop for repairing, one serviced UPS of adequate capacity has to be provided by the agency. However in case the service UPS is provided as standby before the expiry of stipulated response time, no penalty will be charge

Item	Item Description	Unit	Rate in fig
No.	-		
1.	Rate for all inclusive comprehensive AMC		
	exclusive of GST for the above		
	3.0 KVA UPS systems as mentioned in		
	PART".A" excluding Batteries (But		
	includes checking & cleaning of batteries		
	terminal & surface) after completion of		
	warranty period of TWO -YEARS.		
	1 <sup>st</sup> year CAMC	Per Set	3000.00
	<b>2</b> <sup>nd</sup> year CAMC	Per Set	3200.00
	<b>3</b> <sup>rd</sup> year CAMC	Per Set	3400.00
	<b>4</b> <sup>th</sup> year CAMC	Per Set	3600.00
	<b>5</b> <sup>th</sup> year CAMC	Per Set	3800.00
2	Rate for all inclusive comprehensive AMC		
	exclusive of GST for the above		
	<b>6.0 KVA</b> UPS systems as mentioned in		
	PART".A" excluding Batteries (But		
	includes checking & cleaning of batteries		
	terminal & surface) after completion of		
	warranty period of TWO -YEARS.		
	1 <sup>st</sup> year CAMC	Per Set	5000.00
	<b>2</b> <sup>nd</sup> year CAMC	Per Set	5200.00
	<b>3</b> <sup>rd</sup> year CAMC	Per Set	5400.00
	<b>4</b> <sup>th</sup> year CAMC	Per Set	5600.00
	<b>5</b> <sup>th</sup> year CAMC	Per Set	5800.00

Note-GST will be applicable extra as per prevailing rate based on work contract. As on date the work contract rate is 18%.



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