



**Name of work : Supply Installation Testing & commissioning (SITC) of VRV/VRF system from 3<sup>rd</sup> floor to 7<sup>th</sup> floor at LIC Digital building, Bandra Kurla Complex, Mumbai.**

## **BID II**

### **(PART- II)**

**(Issue, Receipt and Opening by E – Tendering system only)**

- Issue of E - Tenders (Downloading):** 22.08.2022/11.00hrs - 11.09.2022/23.59 hrs
- Date of Pre Bid Meeting :** 05.09.2022 at 14.30 Hrs.
- Last Date for Receipt of Completed:** 12.09.2022 upto 15.00 Hrs.  
**Tenders**
- Opening of Received Tenders:** 12.09.2022 at 15.30 Hrs.  
**(EMD, Prequalification Bid & deviation**  
**In Technical & commercial conditions)**

**LIFE INSURANCE CORPORATION OF INDIA ENGINEERING DEPARTMENT,  
WESTERN ZONAL OFFICE,  
“YOGAKSHEMA”, WEST WING,  
1<sup>st</sup> FLOOR, JEEVAN BIMA MARG, MUMBAI - 400021  
PHONE: 022-66598250, 66598257, 66598260  
e-mail: wz\_engg@licindia.com**

**LAST DATE FOR ON LINE SUBMISSION ON OR BEFORE 15.00 HRS. ON 12.09.2022**

**Name of work : Supply Installation Testing & commissioning (SITC) of VRV/VRF system from 3<sup>rd</sup> floor to 7<sup>th</sup> floor at  
LIC Digital building, Bandra Kurla Complex, Mumbai.**

**CONTENTS**

| SNO | DESCRIPTION                                                                            | PAGE NOS |
|-----|----------------------------------------------------------------------------------------|----------|
| 1   | E-tendering programme.                                                                 | 3-4      |
| 2   | Instructions In Regard to Submission Of Tenders.                                       | 5-6      |
| 3   | Information & Instructions to The Bidders                                              | 7-10     |
| 4   | Form of Pre Contract Integrity Pact                                                    | 11-16    |
| 5   | Letter to Contractor from Chief Engineer                                               | 17-18    |
| 6   | Letter from Contractor to Chief Engineer                                               | 19-20    |
| 7   | Appendix to the Conditions of Contract & No Claim Certificate                          | 21-22    |
| 8   | CAMC and Special Conditions                                                            | 23-27    |
| 9   | General Preambles to Schedule of Quantities                                            | 28-29    |
| 10  | Measurements of Work                                                                   | 30-31    |
| 11  | Approved Makes                                                                         | 32-34    |
| 12  | Schedule of Quantities including General Summary & Price Bid Form<br>(reference page). | 35-43    |

Engineering Dept., Western Zonal Office, "Yogakshema", West Wing, 1<sup>st</sup> Floor,  
J B Marg, Mumbai – 400 021 Tel 022-66598257, 22852261, 22820291.

E-mail: wz\_engg@licindia.com

**e-Tendering Programme**

**System Tender No.**

- Online bids are hereby invited for the works mentioned below through online e- Tendering System portal <http://www.tenderwizard.com/LIC> from the intended contractors. Please note that tender shall be issued to approved manufacturers only. In case manufacturer participates through their dealers, authorization letter for not more than two dealers (if manufacturer directly participates then only one dealer) shall be allowed to participate in the tender.

| Sr. No | Description                 | Remarks                                                                                                                                                                         |
|--------|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1      | Name of Work                | Supply Installation Testing & commissioning (SITC) of VRV/VRF system from 3 <sup>rd</sup> floor to 7 <sup>th</sup> floor at LIC Digital building, Bandra Kurla Complex, Mumbai. |
| 2      | Estimated Cost              | Rs.116 Lakhs (approx.)                                                                                                                                                          |
| 3      | Earnest Money Deposit (EMD) | Rs.58000.00 ( Rupees Fifty Eight Thousand only)                                                                                                                                 |
| 4      | Tender Document Fee         | Rs. 590/- (Non refundable) including GST 18%                                                                                                                                    |

- Possession of Digital Signature Certificate (DSC) and registration of the bidders on the portal i.e. <http://www.tenderwizard.com/LIC> is a prerequisite for e-Tendering.
- Dates of various activities by bidder :
- Downloading of Tender Documents: From 11:00 Hrs on 22-08-2022 up to 11:59 Hrs on 11.09.2022.
- Date of corrigendum, amendments, if any : Up to 17.30 Hrs on 08.09.2022
- Online submission of Tender: Up to 15.00 Hrs on 12.09.2022
- Last date of Manual submission of tender fee & EMD: Up to 15:00 Hrs on 12-09-2022 at Mumbai office address.
- Opening of BID I & online opening of BID II : From 15:30 Hrs. on 12-09-2022

For Registration and for further details on e-tendering, please visit website abovementioned portal (website) or below mentioned Helpdesk details.

Office Address :

**E-Tender helpdesk**

**#24, Sudha Complex, 03rd Stage, 04th  
Block, Basaveshwaranagara, Bangalore -  
560079,**

Help Desk Contact Details:

Tel: 080-40482000/121/133/140

Mobile: 9686115304/9686115323/7011974208

E-mail: [lokesh.hr@antaressystes.com](mailto:lokesh.hr@antaressystes.com)

[twhelpdesk978@gmail.com](mailto:twhelpdesk978@gmail.com)

[raghuprashanth@antaressystems.com](mailto:raghuprashanth@antaressystems.com)

**KEY DATES**

| Sr. No. | Department<br>Stage                                       | Bidder Stage                                                         | Start Date and<br>Time                                     | Expiry Date and Time             |
|---------|-----------------------------------------------------------|----------------------------------------------------------------------|------------------------------------------------------------|----------------------------------|
| 1       |                                                           | Downloading of Tender<br>Document                                    | 11:00 Hrs on<br>22.08.2022                                 | 23:59 Hrs<br>11.09.2022          |
| 2       | Date of<br>corrigendum,<br>amendments if<br>any.          |                                                                      | —                                                          | Up to 17:30 Hrs on<br>08.09.2022 |
| 3       |                                                           | Online submission of<br>tender documents<br>including Financial Bid. | Up to 15.00 Hrs on 12.09.2022                              |                                  |
| 4       | Manual<br>submission of BID<br>I i.e. tender fee &<br>EMD |                                                                      | Up to 15:00 Hrs on 12.09.2022 at<br>Mumbai office address. |                                  |
| 5       | Opening of BID-I &<br>Online Opening of<br>BID II         | -                                                                    | From 15:30 Hrs. on 12.09.2022                              |                                  |

**LIFE INSURANCE CORPORATION OF INDIA INSTRUCTIONS IN REGARD TO SUBMISSION OF TENDERS**

**NOTE:** Tenderer should note that non-compliance of the following instructions will render the tender liable for rejection.

- 1.** Address to which the BID No. I i.e. EMD and Tender Fee in sealed envelopes marked BID No. I is to be submitted to “The Chief Engineer, Engineering Dept., Western Zonal Office, “Yogakshema”, West Wing, 1<sup>st</sup> Floor, J B Marg, Mumbai – 400 021”
- 2.** Last date for manual submission of BID-I of tender Up to 15.00 Hrs on 12.09.2022
- 3.** Tenderer should ensure that the tender is received before the due date and time specified in the Key Dates of online tender.
- 4.** Tenderer should fill in all the relevant information in prescribed templates/forms and put his Digital signature on the relevant places as required in the e-tendering System.
- 5.** The schedule of quantities (Price Bid) should be filled in as per the format given in the online e-Tender.
- 6.** Tenderer should note that he is to quote item rates only for the total estimate amount and refrain from making offer of percentage below/above the estimated rates quoted. Such tenders are liable to be rejected.
- 7.** No liability whatsoever will be admitted nor claim allowed in respect of errors in the submitted tender due to missing / duplicate uploaded documents.
- 8.** Part A / Proforma of Articles of Agreement should not be filled in by the tenderer. While the contract shall be deemed to have come into existence on issue of letter of acceptance to the successful tenderer, formal agreement shall be signed thereafter with the successful tenderer on non-judicial stamp paper of requisite value as per the proforma of Articles of Agreement.
- 9.** Earnest Money accompanying with the tender will be accepted only in the form of Demand Draft/Pay Order/Banker's Cheque of any Nationalised Bank/Approved Scheduled Bank drawn in favour of “LIFE INSURANCE CORPORATION OF INDIA” payable at Mumbai, and not in favour of any other Authority or location. Any tender, which is not accompanied by Earnest Money Deposit, shall be summarily rejected. No interest will be paid for the period during which the earnest money lies in deposit with the Employer.
- 10.** The tender shall be signed only by proprietor of proprietorship firm/ authorized partner in case of partnership firm/ authorized person of company, Public, Limited firm etc. For these purposes power of attorney shall not be considered.
- 11.** Bidders are warned that Cash, or Encashable Cheque, or Bank or Insurance Guarantee, or Fixed Deposit receipt in lieu of the aforementioned form of Earnest Money remittance will not be accepted.
- 13.** Tenders containing errors are liable to be considered non-bonafide at the discretion of the Chief Engineer

- 14.** Tenderer should note that tender should remain valid for consideration for a minimum period of **THREE MONTHS** from the last date fixed for submission of tender.
- 15.** 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.
- 16.** Bidders should fill in their "Item Rate in the **SCHEDULE OF QUANTITIES** or prescribed form provided on online portal in both **FIGURES** and **WORDS**. Tenders containing the percentage rate only in figures are liable to be considered non-bonafide at the discretion of the Chief Engineer and entail forfeiture of Earnest Money Deposit.
- 17.** If on check there are differences between the Item rate quoted by the bidder in words and figures or in the amount worked out or no amount quoted by him, the following shall be considered:
  - a. When there is a difference between the Item Rate in figures and in words, the quoted Item Rate which correspond to the amounts worked out by the bidder, shall be taken as correct.
  - b. When the amount of an item is not worked out by the bidder or it does not correspond with the quoted item rate written either in figures or in words, then the Item rate quoted by the bidder in words shall be taken as correct.
  - c. When the Item rate quoted by the bidder in figures and in words tallied but the amount is not worked out correctly, the item rate quoted by the bidder shall be taken as correct and not the amount.

Pages to be filled and signed by the bidders for uploading their tender are as below.

- 1.** Bid –II part B i.e. Financial Bid- PRICE BID SUMMARY PAGE of BID – II to be filled in Excel Sheet provided along with tender, online only.

## **INFORMATION & INSTRUCTIONS TO THE BIDDERS**

### **FOR USING ONLINE ELECTRONIC TENDERING SYSTEM (eTS)**

Special Conditions & instructions for using online Electronic Tendering System (eTS) through portal (website) <http://www.tenderwizard.com/LIC> adopted by Life Insurance Corporation of India (LIC), Western Zone, Mumbai as given in the subsequent pages will over-rule the conditions stated in the tender documents, wherever relevant and applicable.

- ☐ **Registration of the Contractors/Bidders:** All the Bidders intending to participate in the tenders floated online using Electronic Tendering System (ETS) are required to get registered on the eTender Portal (website) <http://www.tenderwizard.com/LIC>

After successful Registration on above mentioned portal bidder will get a User ID and Password to access the website.

- ☐ **Viewing of Online Tenders:** The contractors/bidders can view tenders floated on online Electronic Tendering System (ETS) hereinafter referred as “eTendering System” through portal (website) at <http://www.tenderwizard.com/LIC>. They can view the details like Tender Notice, Terms and Conditions, drawing (if any) and any other information. To download through they need to login on to the above portal and can download the tender documents of an eTender.
- ☐ **Key Dates:** The contractors/bidders can view the Online Scheduled dates of e-tendering System (time schedule) hereinafter referred as “Key Dates” for all the tenders floated using the online electronic tendering system on above mentioned portal (website) <http://www.tenderwizard.com/LIC>

The bidders are strictly advised to follow dates and time as mentioned in Key Dates of a particular tender. The date and time will be binding on all the bidders. The bidders are required to complete the stage within the stipulated time as per the schedule (Key Dates) to continue their participation in the tender. 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 time of the stage as defined.

The bidder should ensure that the status of a particular stage should be shown as “Completed” before the expiry date and time of that particular stage and they should possess a copy of receipt of completion of each stage to be performed from their end which should match with the status with their offer on online portal. It will be the sole responsibility of the bidder if the status of a particular stage is “Pending” till the expiry date and time of that stage and he is not able to proceed further in the eTendering process. The Key dates are subject to change in case of any amendment in schedule due to any reason stated by the Department.

- **Obtaining a Digital Certificate and its Usage:** On eTendering System the bids should be Encrypted and Signed electronically with a Digital Signature Certificate (DSC) to establish the identity of the bidder on online Portal. The Digital Signature Certificate (DSC) has two keys i.e. Public Key and Private Key. The

Public Key is used to Encrypt (code) the data and Private Key is used to decrypt (decode) the data. The Encryption means conversion of normal text into coded language whereas decryption means conversion of coded language into normal text. These Digital Signature Certificates (DSCs) are issued by an approved Certifying Authority, by the Controller of Certifying Authorities (CCA India), Government of India.

- The bidders may obtain Class III digital certificate from any Certifying Authority or Sub-certifying Authority authorized by the Controller of Certifying Authorities on the portal <http://cca.gov.in>. or may obtain information and application format and documents required for issue of digital certificate from our Service Provider for Electronic Tendering System (ETS):

E-Tender helpdesk #24, Sudha Complex, 03rd Stage, 04th Block, Basaveshwaranagara, Bangalore - 560079,  
[dscprocessingunit@yahoo.com](mailto:dscprocessingunit@yahoo.com)

Help Desk Contact Details:

Tel: 080-40482000/121/133/140 Mobile: 9686115304/9686115323

E-mail: [lokesh.hr@antaressystes.com](mailto:lokesh.hr@antaressystes.com)

[raghuprashanth@antaressystems.com](mailto:raghuprashanth@antaressystems.com)

- The Bid (Online Offer) for a particular eTender may be submitted only using the Digital Signature Certificate (DSC), which is used to Encrypt (codified) the data and sign the Hash (Impression of your data) during the stage of Bid Preparation and Hash submission. In case, during the process of a particular eTender, the user loses his Digital Certificate (i.e. due to virus attack, hardware problem, operating system problem), he may not be able to submit the bid online. Hence, the users are advised to keep their Digital Signature Certificates in safe custody.
- In case of online Electronic Tendering, if the Digital Certificate issued to the authorized user of a firm is used for signing and submitting an online bid, it will be considered equivalent to a no-objection certificate/power of attorney to that User. The firm has to authorize a specific individual via an authorization certificate signed by all partners to use the Digital Certificate as per Indian Information Technology Act 2000 and its amendments. Unless the certificates are revoked, it will be assumed to represent adequate authority of the user to bid on behalf of agency for LIC of India, Western Zonal Office, Mumbai as per Information Technology Act 2000 and its amendments. The Digital Signature of this authorized user will be binding on the firm. It shall be the responsibility of management / partners of the registered firms to inform the certifying authority or Sub Certifying Authority; in case of change of authorized user and that a fresh digital certificate is procured and issued an "Authorization Certificate" for the new user. The procedure for application of a Digital Certificate will remain the same for the new user.
- 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.

- Bidders participating in e-tendering shall check his/her validity of Digital Signature Certificate before bidding in the specific work floated online at the eTendering Portal (website) through <http://www.tenderwizard.com/LIC>.

☐ **Submission of Earnest Money Deposit & Tender Fee :**

Bidders have to deposit EMD & Tender Fee of required amount and in the form as stated in of DD in a sealed envelope on and before of required amount as mentioned in the respective eTender in the form of "CROSSED DEMAND DRAFT " of any of the Nationalized Banks drawn in the favour of the "Life Insurance Corporation of India" payable at "Mumbai" only, and not in the favour of any other Authority or Location .

- Refund of Earnest Money Deposit to the unsuccessful bidders will be made through RTGS/NEFT.
- Demand Draft should be submitted to the Chief Engineer, western Zonal Office, Life Insurance Corporation of India, Yogakshema, 1<sup>st</sup> Floor West wing, J B Marg, Mumbai - 400 021 in the sealed envelope ( BID I ) on or before the due date mentioned in Key Dates of eTender, otherwise your BID II will not be opened.
- If the tenders are cancelled or recalled on any grounds, the tender document fees will not be refunded to the agency.

☐ **Tender Download:**

- ☐ The Eligible Bidders can download the Tender Document online from above eTendering Portal <http://www.tenderwizard.com/LIC> before the Tender closing date & time mentioned in the eTender floated.

☐ **Submission of online bids:**

- ☐ The bidders are required to prepare their bids on online eTendering Portal as mentioned above. During bid preparation the bidders have to send their Public Key of DSC hence they are advised to procure DSCs at earliest to participate in the eTender. They are required to upload the scan copies of Demand Draft for Tender Document Fees and Earnest Money Deposit. ~~Also bidders are required to scan and upload any other documents related to their credentials and submit wherever asked online.~~ The bidders have to prepare their commercial bid online during in this stage only and seal (Encrypt) and digital sign the online bid with their Digital Signature Certificates. The Bidders should take note of any corrigendum being issued on the web portal on a regular basis. They should view and note down or take a printout the Bid Hash submitted and ensure that it matches during "Re- Encryption of Bids" stage. The bidders will not be able to change their ~~technical details and~~ offer (rates) after expiry of due date and time on online portal.
- ☐ Generation of Super Hash: After the time of submission of Bid Seal (Hash) by the Contractors/Bidders has

lapsed, the bid round will be closed and a "Digitally signed tender Super-Hash" will be generated by concerned LIC Department official. This is equivalent to sealing the tender box.

- ☐ **Re-Encryption of Bids:** Once the Generation of Super Hash stage is completed the Contractors/bidders have to decrypt their bids as they are in encrypted mode by their DSC and re-encrypt with Department user's Public Key which will be included in the eTender. During this process they need use their DSC for decryption of Bids and signing of Bid Hash once again for security. The electronic bids of only those Contractors/bidders 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 Bidder who does not submit his bid seal (hash) within the stipulated time will not be allowed to submit his bid (Re- Encryption). This stage could be considered as transfer of control to LIC Department user.

**Opening of Tender (Electronic offers):** EMD Bid and Price/Financial Bid shall be opened on key dates.

**Tenders are invited in Two Bid tendering system.**

(1) **BID I (E.M.D. & tender fee) :** Tender fee of Rs.590/- (Rupees Five Hundred Ninety only) including 18% GST & Earnest Money Deposit of Rs.58000 /- (Rupees Fifty Eight Thousand Six Hundred only) in the form of Demand Draft/Pay Order/Banker's Cheque in favour of "Life Insurance Corporation of India" payable at Mumbai of any Nationalised/Scheduled Bank. On the due date of opening, BID I will be opened first and bidders whose Tender Fee and EMD found in order BID II shall be opened online.

(2) **BID II - Part I (standard papers) & Part II ( Financial Bid ) :** The Price Bid consists of letter to contractor, letter from contractor, Appendix to Condition of Contract, Schedule of Quantities etc . The agency shall note that no condition shall be mentioned in the Price Bid. The conditional Tender is liable to be rejected. The Financial Bid will be opened on the scheduled date and time.

## **PRE CONTRACT INTEGRITY PACT**

### **General:**

This pre-bid pre-contract Agreement (hereinafter called the Integrity Pact) is made on..... day of the month of .....2020, between, on one hand, the Life Insurance Corporation of India (hereinafter referred to as "LIC") a statutory Corporation established under section 3 of Life Insurance Corporation Act 1956 (XXXI of 1956) and having its corporate office at "Yogakshema" Jeevan Bima Marg, Mumbai 400021. (here in after called the "BUYER" which expression shall mean and include, unless the context otherwise requires, his successors in office assigns) of the First part. And M/s .....represented by Shri..... (Hereinafter called the "BIDDER /SELLER/SERVICE PROVIDER" which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns) of the Second part.

WHEREAS the BUYER proposes to procure ..... (*Name of the Stores/ Equipment/Item/Service*) and the BIDDER/Seller/Service Provider is willing to offer/has offered the stores/services and

WHEREAS the BIDDER/Seller/Service Provider is a private company/public company/Government undertaking/partnership/registered export agency, constituted in accordance with the relevant law in the matter and the BUYER is performing its function under the LIC Act 1956.

NOW, THEREFORE,

To avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to:-

Enabling the BUYER to obtain the desired said stores/ equipment/ item/service at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement, and

Enabling BIDDERS/Sellers/Service Providers to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the BUYER will commit to prevent corruption, in any form, by its officials by following transparent procedures.

The parties hereto hereby agree to enter into this Integrity Pact and agree as follows:-

### **1. Commitments of the BUYER**

- 1.1** The BUYER undertakes that no official of the BUYER, connected directly or indirectly with the contract, will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the BIDDER, either themselves or for any person, organization or third party related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting on implementation process related to the contract.

**1.2** The BUYER will, during the pre-contract stage/evaluation stage, treat all BIDDERS alike and will provide to all BIDDERS the same information and will not provide any such information to any particular BIDDER which could afford an advantage to that particular BIDDER in comparison to other BIDDERS.

**1.3** All the officials of the BUYER will report to the “Chief Vigilance Officer” of the Buyer any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.

**2.** In case any such preceding misconduct on the part of such official(s) is reported by the BIDDER to the BUYER with full and verifiable facts and the same is prima facie found to be correct by the BUYER, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by the BUYER and such a person shall be debarred from further dealings related to the contract process. In such a case while an enquiry is being conducted by the BUYER the proceedings under the contract would not be stalled.

### **Commitments of BIDDERS**

**3.** The BIDDER commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract or post-contract stage in order to secure the contract or in furtherance to secure it and in particular commit itself to the following:-

**3.1** The BIDDER will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BUYER, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the contract.

**3.2** The BIDDER further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BUYER or otherwise in procuring the Contract or forbearing to do or having done any act in relation to the obtaining or execution of the contract of any other contract with the government for showing or forbearing to show favour or disfavor to any person in relation to the contract of any other contract with the Government.

**3.3** Foreign BIDDERS shall disclose the name and address of their Indian agents and representatives in India, and Indian BIDDERS shall disclose their foreign BUYERS or associates.

**3.4** BIDDERS shall disclose the payments to be made by them to their agents/brokers or any other intermediary, in connection with this bid/contract.

**3.5** The BIDDER further confirms and declares to the BUYER that the BIDDER is the original manufacturer/integrator/authorized agent of the stores/equipment/items and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the BUYER or any of its functionaries, whether officially or unofficially to the award of the contract to the BIDDER, nor has any

amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation.

- 3.6** The BIDDER, either while presenting the bid or during pre-contract negotiations or before signing the contract, shall disclose any payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries, including officials of the BUYER or their family members, if any, in connection with the contract and the details of services agreed upon for such payments.
- 3.7** The Bidder will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
- 3.8** The BIDDER will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.
- 3.9** The BIDDER/Contractor will not commit any offence under the relevant India Penal Code (IPC) /Prevention of corruption (PC) act. Further, the bidder will not use improperly, for purposes of competition or personal gain, pass on to others, any information provided by the BUYER as part of the business relationship, regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The BIDDER also undertakes to exercise due and adequate care lest any such information is divulged.
- 3.10** The BIDDER commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.
- 3.11** The BIDDER shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.
- 3.12** If the Bidder or any of the key personnel of the bidder, actively involved in the project is a relative of any of the actively involved personnel of the Buyer, the same should be disclosed.
- The term 'relative' for this purpose would be as defined in section 2(77) of the Companies Act, 2013.
- 3.13** The BIDDER shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee or the BUYER.
- 3.14** The Bidder(s) /Contractor(s) who have signed the Integrity Pact shall not approach the Courts while representing the matter to IEMs and shall wait for their decision in the matter.

#### **4. Previous Transgression**

- 4.1** The BIDDER declares that no previous transgression occurred in the last three years immediately before signing of this Integrity Pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India that could justify; BIDDER's exclusion from the tender process.

**4.2** The BIDDER agrees that if it makes an incorrect statement on this subject, or committed a transgression through a violation of any of the clauses of the commitments of bidder, BIDDER can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

### **5. Sanctions for Violations:**

**5.1** Any breach of the aforesaid provisions by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER) shall entitle the BUYER to take all or any one of the following actions, wherever required:-

- (i) To immediately call off the pre contract negotiations without assigning any reason or giving any; compensation to the BIDDER. However, the proceedings with the other BIDDER(s) would continue.
- (ii) The Earnest Money Deposit (in pre-contract stage) and/or Security Deposit/ Performance Bond (after the contract is signed) shall stand forfeited either fully or partially, as decided by the BUYER and the BUYER shall not be required to assign any reason therefore.
- (iii) To immediately cancel the contract, if already signed, without giving any compensation to the BIDDER.
- (iv) To encash the advance bank guarantee and performance bond/warranty bond, if furnished by the BIDDER, in order to recover the payments, already made by the BUYER, along with interest.
- (v) To cancel all or any other contracts with the BIDDER. The BIDDER shall be liable to pay compensation for any loss or damage to the BUYER resulting from such cancellation/recession and the BUYER shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER.
- (vi) To debar the BIDDER from participating in the future bidding processes of LIC for a minimum period of five years which any be further extended at the discretion of the BUYER.
- (vii) To recover all sums paid in violation of this Pact by BIDDER(s) to any middleman or agent or broker with a view to securing the contract.
- (viii) Forfeiture of Performance Bond in case of a decision by the BUYER to forfeit the same without assigning any reason for imposing sanction for violation of this pact.

**5.2** The BUYER will be entitled to take all or any of the actions mentioned at para 5.1(i) to (viii) of this pact also on the Commission by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER), of an offence as defined in chapter IX of the Indian Penal Code, 1860 or Prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.

**5.3** The decision of the BUYER to the effect that a breach of the provisions of this pact has been committed by the BIDDER shall be final and conclusive on the BIDDER. However, the BIDDER can approach the Independent Monitor(s) appointed for the purposes this Pact.

### **6. Independent Monitors:**

**6.1** The BUYER has appointed (hereinafter referred to as Monitors) for this Pact in consultation with the Central

Vigilance Commission.

Name address of the Monitor(s):

1. Shri G V Krishna Rau

Ex- Addl. Chief Secretary & Development Commissioner to Govt. of Karnataka

Villa 116, The Retreat, Tharabanahalli, Chikkajala Post

Bangalore – 562157

Email: [gvkrishnarau@gmail.com](mailto:gvkrishnarau@gmail.com) Mobile No. 9880240080

2. Shri. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Email:

**6.2** The task of the Monitors shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this Pact.

**6.3** The Monitors shall not be subject to instructions by the representatives of the parties and perform their functions neutrally and independently. It will be obligatory for him to treat the information & documents of the Bidder as confidential.

**6.4** Both the parties accept that the Monitors have the right to access all the documents relating to the project/procurement, including minutes of meetings.

**6.5** As soon as the Monitor notices, or has reason to believe, a violation of this pact, he will so inform the **Executive Director (E&OS), LIC**.

**6.6** The BIDDER(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the BUYER including that provided by the BIDDER. The BIDDER will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor shall be under contractual obligation to treat the information and documents of the BIDDER/Subcontractor(s) with confidentiality.

The Monitor has also signed declarations on 'Non-Disclosure of Confidential Information' and of 'Absence of Conflict of Interest'. In case of any conflict of interest arising at a later date, the IEM shall inform Chairman, LIC and recuse himself / herself from that case.

**6.7** The BUYER will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the parties. The

parties will offer to the Monitor the option to participate in such meetings.

**6.8** The Monitor will submit a written report to the **Chairman, LIC** within 8 to 10 weeks from the date of reference or intimation to him by the BUYER /BIDDER and, should the occasion arise, submit proposals for correcting problematic situations.

**6.9** If the Monitor has reported to the Chairman, LIC, a substantiated suspicion of an offence under relevant IPC/ PC Act, and the Chairman LIC has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner.

### **7. Facilitation of Investigation:**

In case of any allegation of violation of any provisions of this pact or payment of commission, the BUYER or its agencies shall be entitled to examine all the documents including the Books of Accounts of the BIDDER. The BIDDER shall provide necessary information and documents in English and shall extend all possible help of the purpose of such examination/inspection.

### **8. Law and Place of Jurisdiction:**

This Pact is subject to Indian Law. The place of performance and jurisdiction is the seat of the BUYER.

### **9. Other Legal Actions:**

The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extent law in force relating to any civil or criminal proceedings.

If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.

Changes and supplements as well as termination notices need to be made in writing.

### **10. Validity:**

**10.1** The validity of this Integrity Pact shall be from date of its signing and extend upto 12 months after the last payment under the contract. In case BIDDER is unsuccessful, this Integrity Pact shall expire after six months from the date of the signing of the contract.

**10.2** Should one or several provisions of this Pact turn out to be invalid; the remainder of this pact shall remain valid. In this case, the parties will strive to come to an agreement to their original intentions.

**11.** The parties hereby sign this Integrity Pact at.....on.....

BUYER

BIDDER

Name of the Officer: CEO:

Designation /Deptt./

Contractor

16

Chief Engineer



Witness

1.....

1.....

2.....

2.....

(Note: Bidder/Seller/Service Provider/Stores/equipment/item/service

Bidding process/ bid evaluation/process of availing services. Appropriate word may be used where ever applicable without altering the purpose /desired intention of the clause. )

**LIFE INSURANCE CORPORATION OF INDIA**  
**LETTER TO CONTRACTOR FROM CHIEF ENGINEER**

Date:

To

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Dear Sir / Sirs,

**Sub: Supply Installation Testing & commissioning (SITC) of VRV/VRF system from 3<sup>rd</sup> floor to 7<sup>th</sup> floor at LIC Digital building, Bandra Kurla Complex, Mumbai.**

1) We hereby publish the TENDER on e-Tendering Portal (Website) through [www.tenderwizad.com/LIC](http://www.tenderwizad.com/LIC) in **Electronic Mode** hereinafter referred as “eTendering” and consisting of following :

(a) BID I : E.M.D. and Tender Fee.

(b) BID II : FINANCIAL BID ( consisting of Part –“I” and Part –“II”)

Please note that copy of 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 document and online portal for above tender.**

1) The drawings for the work will be available for inspection at the following Office:

(a) Chief Engineer, Western Zonal Office. Life Insurance Corporation of India, Yogakshema, west wing, 1<sup>st</sup> floor, J B Marg , Mumbai - 400 021

The Earnest Money Deposit of Rs 58,000.00/- ( Rupees Fifty eight thousand only ) shall be submitted in the following form:-

- (a) The total amount in the form of Crossed Demand Draft/ Pay order/ Bankers Cheque of any Nationalized/ approved Scheduled Bank drawn in favour of “Life Insurance Corporation of India” payable at “Mumbai”
- 2) The bidders should submit required Tender Fee and Earnest Money Deposit in a manner/mode as mentioned in e-Tender process.
- 3) Tender fee of Rs 590/- ( Rupees Five Hundred Ninety only ) incl 18% GST and Earnest Money Deposit of Rs. 58,000.00-(Rupees Fifty eight thousand only) shall be submitted in a sealed envelope separately. a) Tender fee of Rs 590/- (Rupees Five Hundred Ninety only) in the form of Crossed Demand Draft/ Pay order/ Bankers Cheque of any Nationalized/ Scheduled Bank drawn in favour of “Life Insurance Corporation of India” payable at “Mumbai”
- b) Earnest Money Deposit shall be submitted in the following form:-
  - i) The total amount of Rs. 58,000.00 /- ( Rupees Fifty eight thousand only ) in the form of Crossed Demand Draft/ Pay order/ Bankers Cheque of any Nationalized/ Scheduled Bank drawn in favour of “Life Insurance Corporation of India” payable at “Mumbai”
- 4) BID II is to be submitted on the e-tendering portal on or before As per the Key Dates and the BID I & BID II of eTenders will be opened 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 Login IDs on the above mentioned eTender 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.
- 5) An annexure for Guidelines to Submit tenders on Electronic Tendering System (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 & conditions mentioned for submission of tender in document.
- 6) The Life Insurance Corporation of India does not bind itself to accept the lowest or any tender.

Encl: As above.

**CHIEF ENGINEER**

LIFE INSURANCE CORPORATION OF INDIA  
LETTER FROM CONTRACTOR TO CHIEF ENGINEER

TO BE SUBMITTED ONLINE ON OR BEFORE ON As per the Key Dates

Date:

From:

.....  
.....  
.....  
.....

To

The Chief Engineer,  
Life Insurance Corporation of  
India Western Zonal Office  
Yogakshema, J B Marg.  
Mumbai - 400 021

**SUB: Supply Installation Testing & commissioning (SITC) of VRV/VRF system from 3<sup>rd</sup> floor to 7<sup>th</sup> floor at  
LIC Digital building, Bandra Kurla Complex, Mumbai.**

Dear Sir,

1) Having examined the Technical Specifications, schedule of Quantities, Detailed Drawings, Specifications, Conditions of Contract etc. included in the tender document for the Percentage Rate Contract relating to the above work, having visited/examined the site of the existing premises, having acquired the requisite information relating thereto as effecting the tender invited by you on behalf of the Life Insurance Corporation of India, I/We, the undersigned hereby offer to carry out the above mentioned work on Percentage Rate basis in strict accordance with the Contract Conditions and Specifications.

I/We, undertake to complete and deliver the whole of the works within a period as specified in Appendix to the Conditions of Contract from the date of issue of intimation from you that the tender has been accepted and upon receiving possession of the site. I/We shall be under the obligation to complete the entire work within the period of completion failing which to pay the sum as stated in the Appendix to the Conditions of Contract for every week that the works shall remain incomplete, damages as

Contractor

19

Chief Engineer

compensation subject to the conditions of contract relating to extension of time.

2) I/ We submit herewith my/our tender with an Earnest money remittance of Rs. 58,000.00

/(Rupees Fifty eight thousand only) in the form of CROSSED DEMAND DRAFT of Nationalized/  
scheduled Bank PAYABLE AT Mumbai. I/We, hereby agree that part of this

sum shall be forfeited by the 'Life Insurance Corporation of India in the event of my/our tender being  
accepted and I/We fail to execute Contract when called upon to do so.

3) 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. OR I/We, agree to furnish a lump sum Bank Guarantee for total  
Security Deposit of Rs. 5,80,400.00 (Rupees Five lakh eighty thousand four hundred Only ) or two Bank  
Guarantees each with 50% value of S D from any Nationalized/Scheduled Bank at Mumbai as per specimen  
given in Annexure "C" to Conditions of Contract, within 20 (twenty) days of acceptance of tender.

4) I/We, note that the Earnest Money Deposit of Rs. 58,000.00- (Rupees Fifty eight thousand only ) would  
be refunded to me/us.

- a. On expiry of the validity of the tender or earlier at the discretion of Chief Engineer in case my/our tender  
is not accepted and
- b. In case my/our tender is accepted, after I/We, furnish Bank Guarantee in lieu of Security Deposit as  
mentioned above.

5) I/We, agree,

- a) In case my/our tender is withdrawn before expiry of the validity period or before the issue of letter of  
acceptance, 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 the EMD will be forfeited by the  
department.
- b) ~~In case my/our tender is accepted and the Performance Guarantee is not submitted within the  
prescribed period or approved extended period, the EMD will be forfeited automatically without any  
notice.~~

Yours faithfully,

(SIGNATURE OF THE CONTRACTOR)

Name and Seal

NAME OF THE AUTHORIZED PERSON OF THE FIRM

**APPENDIX TO CONDITIONS OF CONTRACT**

**SUB: Supply Installation Testing & commissioning (SITC) of VRV/VRF system from 3<sup>rd</sup> floor to 7<sup>th</sup> floor at LIC Digital building, Bandra Kurla Complex, Mumbai.**

**ESTIMATED COST :** Rs.1,16,08,575.00

**PERIOD FOR COMPLETION :** 90 days

**EARNEST MONEY DEPOSIT :** Rs.58,000/- (Rupees Fifty Eight Thousand only)

(To be submitted in DD / NEFT)

| Sl.No. | Clause Nos. | Description                                                                     | Remarks                                                                                                                                                     |
|--------|-------------|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1      | 11          | Minimum requirement of Technical staff: Recovery for Non employment of the same | NA                                                                                                                                                          |
| 2      | -           | Date of commencement                                                            | 7 days from the date of Acceptance letter.<br><br>OR<br><br>The day on which contractor is instructed to take possession of the site, whichever is earlier. |
| 3      | 13 & 26     | Date of completion                                                              | 90 (Ninety) Days from the date of commencement.                                                                                                             |
| 4      | 19          | Liquidated damages / Penalty                                                    | Quantum of liquidated damages : 0.5% of contract sum per week subject to a maximum of 10% of Contract Sum.                                                  |
| 5      | 21          | Period of final measurement                                                     | 60 (Sixty) days from the date of completion of contract.                                                                                                    |
| 6      | 22          | Interim Certificate                                                             | Rs.30.00 Lakhs                                                                                                                                              |
| 7      | 22          | Period of honoring interim certificate                                          | 20 (Twenty) days                                                                                                                                            |
| 8      | 22          | Period of honoring final certificate                                            | 60 (Sixty) days from the date of submission of final bill with details.                                                                                     |

|    |      |                                                                 |                                                                                                                                                                                                                                                                                                                                                                         |
|----|------|-----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9  | 35   | a) Security Deposit                                             | For works costing up to Rs 200 lacs :- 5% of estimated tender amount as Security Deposit which works out to <b>Rs.5,80,400.00</b> . This security deposit shall be deposited / recovered from R.A bills for the work.<br><br>2.5% will be released after successful completion of DLP.<br><br>Balance 2.5% will be released after successful completion of CAMC period. |
| 10 | 35   | Recovery of Security Deposit                                    | Security Deposit shall be recovered from R.A. Bills at 7.5% of Gross amount of bill till the sum along with sum already deposited as EMD equals the total security deposit. (If Security Deposit is paid in the form of Bank Guarantee, no recovery from R.A bills shall be made and EMD shall be refunded after acceptance of Bank Guarantee).                         |
| 11 | 17.5 | Contractor's All Risk Policy inclusive of Third Party Liability | Full amount of contract value including Third party rider of not less than 7.5 % of contract value.                                                                                                                                                                                                                                                                     |
| 12 | 17.6 | Workman's Compensation Policy                                   | Not less than 10% of contract value.                                                                                                                                                                                                                                                                                                                                    |
| 13 | 17.9 | Default in renewal of insurance policies by contractor.         | Insurance policies (workman's compensation and Contractor's All Risk Policy inclusive of Third Party Liability) if not extended on time, Engineering Account section shall proceed with extension of this Insurance policies and apart from financial expenses, LIC shall deduct penalty amounting to Rs.10,000/- for each extension of such policy.                    |
| 14 | 22.6 | No Claim Certificate                                            | To be given on Contractors letter head                                                                                                                                                                                                                                                                                                                                  |
| 15 | 27   | Defects Liability Period.                                       | 12 months after virtual completion of work.                                                                                                                                                                                                                                                                                                                             |

### **COMPREHENSIVE ANNUAL MAINTENANCE**

Post Defect Liability period of 12 months, the entire system shall be under CAMC as per the rates indicated in the BOQ. The contract is comprehensive and includes all spares etc. Nothing extra shall be paid. Preventive maintenance shall be carried out once in every three months apart from breakdown maintenance. The OEM shall provide spares for replacements as and when needed for keeping the system fully functional during the entire contract period including CAMC for a period of 6 years even if the products supplied are nearing obsolescence. Nothing extra shall be paid on this account.

The following activities shall be carried out as a minimum. DURING AMC the technician must check the following:

**1. *Whether Safety Interlocks that have been provided are functional such as:***

- Fire detection signal from fire detector system shall be able to switch off the package unit operation in event of fire in conditioned space. These shall be checked periodically for proper operation.
- Operation of heaters & humidifiers provided occurs only when blower fan is in operation.

**2. *INDOOR UNITS - CASSETTE / DUCTABLE AIR-CONDITIONER UNITS/Floor mounted indoor units:***

- a) Cleaning & washing of filter screens and evaporator coils.
- b) Lubricating of bearings of motors and fans as required.
- c) Inspection of belts, adjustment of tension and replacing worn-out belts wherever required.
- d) Repairs / replacement of all the defective parts of indoor units including electronic controls.
- e) Repairs / replacement of insulation of gas and liquid lines, drain water piping.
- f) Gas charging for maintaining the required refrigerant gas pressure.
- g) Cleaning of front grilles & moving louvers etc. and carrying out proper airbalancing as required.
- h) Checking and adjusting settings of thermostat to required level.
- i) Ensuring easy flow of drain water from the evaporator unit.
- j) Overhauling equipments and components such as condenser unit etc., at required intervals at site/ service station if required.
- k) Checking Voltage and current and comparing with specified parameters. Check for any damages in wires etc. and all nuts, bolts are secured in proper place / position.
- l) Cleaning of Air filters and evaporator coils to ensure heat transfer is not affected due to accumulation dust etc.
- m) Ensure coil drain / tray is not clogged.

- n) Checking temperature sensors etc. and the same are in order. Check the return air temperature and any rectification as necessary.
- o) Check for any abnormal noise and vibrations, current etc in blower / motor / compressor etc..
- p) Checking leakages through panel / plenum / canvas etc. Checking fresh air infiltration in return air path etc. as applicable.
- q) Room temperature

### **3. FOR OUTDOOR UNITS:**

- a) The following Safety Protections are properly functional:

- High pressure trip - Manual reset for each compressor
- Low pressure trip - Manual/Auto reset for each compressor.
- Single phasing preventers.
- Reverse phasing
- Phase unbalancing
- Phase failure
- Overload tripping

- b) Check signs of oil leakage, undue vibrations, whether anti - vibration mounts are proper, check for any abnormal noise and vibrations in condensers.

- c) In condensers, the fins shall be cleaned using blowers or other suitable means such as combing the fins with proper brush to remove accumulated dust and thus ensure proper heat transfer.

- d) Suction and discharge pressure shall be checked for indication of envisaged performance or any incipient fault.

- e) Checking Voltage and current and comparing with specified parameters. Checking for any damages in wires etc.

- f) Check fan operation

- g) Repairs / replacement of all the defective parts of outdoor units including compressor and electronic controls/PCBs etc.

- h) Overhauling equipments and components such as condenser unit etc., at required intervals at site / service station if required.

- i) Ambient temperature.



#### **4. BREAK DOWN CALL SERVICE:**

Attending all the breakdown calls within 1 day for minor defects and within 1 week for major repairs / replacement from the date of lodging or registration of complaint. However suitable precautions to be taken such as providing service unit if required and ensuring cascading failures are avoided.

The authorized service Engineer / Technician shall after visiting the site, make a thorough inspection & carry out necessary service / repairs / rectification to the complete satisfaction of the officer in-charge. After bringing the AC unit to the working condition, the Technician shall demonstrate satisfactory working of the AC units, for a reasonable length of time and obtain a report / certificate from the user / user department that the repairs have been carried out to their satisfaction.

The technician while attending to break down call should thoroughly examine the AC units (other AC machines if redundancy is provided) and attend to all the defects at one call to avoid frequency of break downs.

In case, at the time of attending break down calls, it is found that the unit has a major defect like compressor failure etc., requiring the shifting the AC unit to the work shop, the agency shall undertake the same and re- install the unit after repairs at his cost. In case of failure to render periodical services, delay in attending to repairs and breakdowns, suitable penalty will be imposed including getting the same repaired at the risk & cost of the Contractor.

It may please be noted that in case of any accident / injury to the workman during the work in our premises, LIC of India shall not be responsible for any claims or compensation towards the same and contractor shall be solely responsible to compensate them as per prevailing laws. Adequate Insurance Third Party Liability and Workmen compensation must be taken by the CAMC contractor during the Maintenance period and the same must be valid throughout the currency of the AMC period.

### **SPECIAL CONDITIONS:**

#### **1. PHOTOGRAPHS OF THE WORK**

The contractor shall submit 3 sets of the prints with negatives of the photographs size 4" x 6" to LIC of India on the following stages:

- a. Before commencement of the work.
- b. During progress of work.
- c. Completion before handing over the building.

The photographs can also be submitted in CD/DVD in lieu of printed photographs.

The quoted rates shall include for the same and no extra is payable to contractor on this account. Contractors shall note that the site is working office building. Hence, contractor shall take in to account this aspect and quote their percentage accordingly.

Bidders are advised to inspect the site before quoting their Item rate. The bidders shall also note that they have to co-operate with the other agencies carrying out the work (s) of LIC of India in the same site.

#### **3. OTHER CONDITIONS:**

- i) Passenger Lifts of building cannot be spared for lifting materials to work site.
- ii) Labourers may be allowed at site only after showing photo I Card issued by the agencies and duplicate of which is to be submitted to our office.
- iii) Gate pass for daily labour may be issued.
- iv) Every effort should be made to restrict the movement beyond working area.
- v) Since the building is in "No Entry" Zone – there is restriction in movement of vehicle. So information regarding entry of materials to our building should come to us well in advance.
- vi) Materials can be taken away only after getting gate pass from Engg. Deptt.
- vii) If work is to be carried out at night. Prior permission is to be obtained by the agencies.
- viii) Well co-ordination should be maintained with other vendors if any.
- ix) Every day, before the office starts the common area should be cleaned in all respect if this area is used anyway for the work.
- x) LIC is no way responsible for issuing way bill or C – form to any agencies.

**4.** Contractor has to arrange all necessary measures for carrying out the work with the permission of Municipal council/Corporation/heritage/Police or any other authority if requires to do so during total currency of work execution. The rates are inclusive of the same without any extra cost to LIC.

**5.** The quantities mentioned in the tender are provisional for all items. The quantities of various items may

increase/decrease during the execution up to any extent. Even some of the items may not be executed at all. The employer may order additional quantity of all or part of items accepted upto 30% of tender quantities of each item. In such an event the contractor shall execute the same at accepted rates. No claim/extra payment in this regard will be entertained.

- ~~6. During the execution of the work, the cleaning of pavements to be done on day to day basis.~~
7. The work is to be carried out in the vacant office Building. The contract shall plan the work such that the installation of equipments and associated works shall be carried out in minimum time frame. ~~with work clearance of carrying out the least disturbance to the occupants/staff and therefore the work may have to be carried out in phased manner but entire work is to be completed within stipulated time limit. No consideration shall be given for extension of time limit on account of work taken in phases.~~
8. The contractor has to depute sufficient number of supervisory staff for supervision, monitoring and control.
9. It is responsibility of the contractor to adhere to all security measures for the workers.
10. The Contractor has to ensure protection to building and other assets including parked vehicles in the campus. In case of any damages caused due to work or due to ignorance of any worker, contractor has to make good the damages and / or compensate the LIC for the damages done.
11. Contractor is advised to inspect the site before submitting the tender and examine all parts of the work including monsoon guarantee to be given after completion of work.
13. ~~Only painted area will be measured flat in case of external elastomeric paint and Cement Paint. No coefficient shall be applied towards painting surface such as pebble dash finish, sand face finish, brick finish etc. contractor requested to inspect the site before quoting the rate.~~
14. ~~Materials with basic rates : In some of the tender items of finishing work like Flooring / Dado / Skirting etc "Basic Price" of the granite/marble/vitrified tile/Ceramic tile/ Lime stone slabs etc are specified in the schedule of quantities. The price variation of these material shall be adjusted as follows;~~

Contractor shall purchase the material as per approved samples on getting approval from the LIC for the source and the rates.

The "Basic price of material specified in the tender items shall be inclusive of all costs up to the site of work, including purchase price, all Statutory taxes, transportation charges including loading and unloading charges at all points (except unloading at site), transit insurance but does not include any incidental expenses incurred by the contractor for arranging to take delivery, transportation or payment of octroi charges etc. which shall be solely to the account of the contractor and shall be included by the contractor in his quoted rates. All other costs such as unloading the material at site, handling, stacking, storing, providing watch and ward arrangement, loss due to pilferage, theft, damages if any including wastage etc shall be to contractor's account.

## **GENERAL PREAMBLES TO SCHEDULE OF QUANTITIES**

These preambles apply to all the sections of the "Schedule of Quantities".

### **1. RATE TO COVER:**

The item rate quoted by the Contractor shall be held to include for providing and fixing, all conveyance and delivery, loading & unloading, carrying in, storing, hoisting, all labour, setting, fitting and fixing in position, making straight, cutting, waste, return of packing and all materials and labour and everything else necessary for the proper completion of each item of work to the approval of Corporation's Engineer and for Establishment Charges, overheads and profits. The Contractor shall provide at his expense all labour, materials and things required by the Corporation's Engineer for testing and measuring the work, for weighing, testing the efficiency of any portion of the work, all planking, gangways etc. necessary for affording access to every part of the work except where specifically stated otherwise.

The Contractor should also cover in his item rate quoted for the method of work, cost of materials, labour etc., to comply with the "Trade Specifications", General Instructions to Contractor", "Conditions of Contract", "Special Conditions", (if any), and all documents of this contract.

All the materials or procedures or specifications for work, unless otherwise stated, shall conform to the current Indian Standard whether or not specific mention is made thereof. The Contractor shall be responsible for and shall replace or make good at his own expense, any materials lost or damaged, or of quality not approved, temporarily disturbed roads, pavements, approaches, gates, walls or any such dismantling carried out to execute the work.

The item rate quoted shall include for Supplying and fixing although the same may not have been mentioned in the item of the Schedule of Quantities. Words "Providing and Fixing where used shall have same meaning as "Supplying and Fixing".

Item rate quoted shall include for hoisting to any height, and the work at all levels and lifts of materials shall not form any criterion for any extra claims, except where otherwise specified.

### **2. ANCILLARY WORKS:**

The Contractor shall have to carry out all ancillary and connected work within and near vicinity of the plot of the proposed work and inside the Building if ordered to do so by the Chief Engineer at the rates quoted in the Schedule of Quantities, at any time during the currency of this Contract including extension of time, if any granted.

### **3. PRICE FLUCTUATION / VARIATION:**

Item rate quoted by the Contractor shall be firm throughout the currency of the Contract including extensions of time, if any granted. No price adjustment due to variation in cost of materials or labour or any variation under any State or Central Legislation or any other reason whatsoever shall be allowed, except as stated in relevant clauses below with regard to variation in price on materials &

labour and price fluctuation in Cement & Steel.

#### **4. TESTING OF MATERIALS:**

Testing of all materials during the progress of work shall be as per frequency given in Table A. Contractor shall facilitate testing of materials as per the frequency / sampling mentioned in the table A. Contractor shall also facilitate testing of any material to be incorporated in work even if it is not specifically mentioned. The testing charge against invoice shall be directly remitted by the corporation to the test house. If the material/s fails to conform to the standards, the test charges shall be recovered from Contractor's bill.

For all other materials listed in special conditions, expenses towards shall be borne by LIC. If the materials fails to conform to the standards, the test charges shall be recovered from contractor's bill.

The Corporation's engineer may get tested any material to be incorporated in work even if it is not specifically mentioned. In all such cases, testing charges will be borne by LIC. If the material /s fails to conform to the standards, the test charges shall be recovered from contractor's bill.

4.4 For all tests incidental charges such as cutting, loading, unloading, casting wherever applicable such as mortar briquettes / cubes and facilitating in transportation, shall be borne by contractor.

#### **5. "PRINCIPAL MAKE/S OR OTHER EQUAL AND APPROVED" FOR MATERIALS / PRODUCTS:**

The Contractor shall note that materials having "ISI" monogram shall primarily be used in the work. If in the tender "Certain Principal Make / Makes or other equal and approved of any material / Product is mentioned in any item or Trade Preambles relating to the particular items in its respective Trade Schedule, the Contractor shall have to use the Principal Make/Makes specified in the relevant item or in the list of Principal Makes/Agencies/Brands of various materials. In case the specified particular Principal make / makes of the materials product is/are not readily available, the Contractor shall take prior permission and approval of the Chief Engineer in writing before use of the alternative equivalent make of the Material/ Product.

All principal makes specified for any item shall be treated at par as per the accepted quoted rate.

Use of the make other than the Principal Make/Makes (which shall be treated as an Equivalent make) shall be at the discretion of the Chief Engineer and such Make/Makes shall be used after the approval of the Chief Engineer.

In such cases the Contractor will not be paid any extra payment over the accepted quoted item rate in any case. However if it is ascertained that the price of approved Equivalent Make or the Material/product is lower than that for the Principal Make/Makes of the same material / product the difference of the price shall be payable by the contractor to LIC. Such difference of price shall be suitably decided by the Chief Engineer whose decision shall be final and binding to the Contractor in this regard.

### MEASUREMENT OF WORK

All items having a financial value shall be entered in the Measurement book. All measurements and levels shall be taken jointly by the Site Engineer or his authorised representative and by the contractor or his authorised representative from time to time during the progress of the work and such measurements shall be signed and dated by both the parties in token of their acceptance. If the contractor objects to any of the measurements recorded, a note shall be made to the effect with reason, signed by both parties and referred to EE whose decision in the matter shall be final and binding. Measurements can also be recorded through electronic medium where specifically approved by Chief Engineer.

Annexure M1

Name of the Work:

Abstract Bill No:

| TI No. | Tender Qty | Brief Description | Quantity  |           |              | Unit | Rate | Amount (Rs) |
|--------|------------|-------------------|-----------|-----------|--------------|------|------|-------------|
|        |            |                   | Last Bill | This Bill | Actual Total |      |      |             |
| 1.01   |            |                   |           |           |              |      |      |             |
| 1.02   |            |                   |           |           |              |      |      |             |
| 1.03   |            |                   |           |           |              |      |      |             |

Deviated items

Net value after rebate:

Value of Extra items

Total value of work done:

Advance for material at site

Any miscellaneous reimbursement charges

Devaluation if any .....

Total value of work done Rs .....

**Deductions**

IT on value of work done @...% on value of work done

Recovery of RMD

Recovery of any other material if any

Recovery of electricity

Recovery of water

Recovery of Insurance lapses & liquidity damages

Amount release in earlier bills .....

Total recoveries .....

Net Amount Payable Rs.

### APPROVED MAKES

Note : The Tenderer shall confirm the make of the system he intends to use, however the Engineer in Charge reserves the right to approve any of the make specified. The contractor shall get the samples of all other items, not covered in the above list, approved from the Engineer-In-Charge before use at site.

| Sl. No.    | Description of Item                                            | Approved Makes                                                                    |
|------------|----------------------------------------------------------------|-----------------------------------------------------------------------------------|
| <b>1.</b>  | <b>High side Equipment</b>                                     |                                                                                   |
| <b>1.1</b> | VRV/VRF/MRV System using compressor of following make only.    | Carrier/ Daikin/Hitachi/Blue star/Voltas                                          |
| <b>1.2</b> | Cassette, Highwall units for VRV / VRF system                  | Carrier/ Daikin/Hitachi/Blue star/Voltas                                          |
| <b>1.3</b> | AHU for VRV / VRF system                                       | Carrier / Hitachi/ Caryaie/Zeco/ Nutech/ Bjluestar/ Voltas/ Edgetech/Citizen/ VTS |
| <b>2.</b>  | Y-Joints VRV/VRF system                                        | Carrier/ Daikin/Hitachi/Blue star/Voltas                                          |
| <b>3.</b>  | <b>FANS</b>                                                    |                                                                                   |
| <b>3.1</b> | Propeller Fan                                                  | Caryaie/ Kruger/ Nuaire (UK)/ Nicotra                                             |
| <b>4.</b>  | <b>Cables &amp; Accessories</b>                                |                                                                                   |
| <b>4.1</b> | Control Cables                                                 | Universal/ Delton/Finolex/Polycab/Havells/ Skytone/                               |
| <b>4.2</b> | XLPE / PVC Insulated Aluminium Conductor Armoured Power Cables | Universal/ RPG Asian/ Havells/ Skytone/ Polycab/INCAB                             |
| <b>4.3</b> | Communication Cable                                            | Finolex/LAPP/ Havells /Fusion/ Polycab                                            |
| <b>4.4</b> | Cable Gland Double Compression / single compression            | Comet / Comex/ Braco/Power/Gripwell                                               |
| <b>4.5</b> | PVC Insulated Copper Conductor Stranded Flexible Wires         | Finolex/ National Cables – NC/ polycab/ Havells / Skytone                         |
| <b>4.6</b> | PVC Conduit (FRLS) & Accessories (BIS Approved)                | BEC/ AKG/Precision/ D Plast/ Polycab                                              |
| <b>4.7</b> | MS/ GI Conduit (ISI Approved)                                  | BEC/ AKG/ STEEL KRAFT/NIC                                                         |



|      |                                                                   |                                                                          |
|------|-------------------------------------------------------------------|--------------------------------------------------------------------------|
| 4.8  | Accessories for MS/GI Conduit (ISI Approved)                      | Sharma Sales Corporation/ Super Sales Corporation                        |
| 4.9  | Bimetallic Cable Lugs                                             | Hex (Brass copper Alloy India Ltd)/<br>Dowell's (Biller India Pvt. Ltd.) |
| 4.10 | Lugs (Tinned Copper)                                              | Dowell's/Braco/Jainsons                                                  |
| 4.11 | Slotted / perforated Tray                                         | Kelp/Fletco/MM Enterprises                                               |
| 5.   | <b>Ducting &amp; Grilles</b>                                      |                                                                          |
| 5.1  | Grilles/ Diffusers                                                | Cosmos/ Airmaster / Dynacraft /Caryaire/<br>Ravistar/ Mapro/ Tristar     |
| 5.2  | Fire Dampers                                                      | Caryaire/ Conaire /Cosmos/ Airmaster /                                   |
| 5.3  | G.I. Sheet Metal Duct                                             | Jindal/National/ Tata                                                    |
| 5.4  | Fire Damper motors                                                | Belimo/Siemens                                                           |
| 5.5  | Self Adhesive Sealing Gasket for Ducts                            | Prima Seal/ Air Flow/ Trocellen                                          |
| 5.6  | Hessian (Fire treated)                                            | Navair/ Pyroguard                                                        |
| 5.7  | Stick Pins                                                        | Prima Seal/ Air Flow                                                     |
| 5.8  | VCD/ Gravity louvers/ Exhaust & fresh air louvers                 | Caryaire/Ravistar/Mapro/ Tristar                                         |
| 6    | <b>Pipes &amp; Fittings</b>                                       |                                                                          |
| 6.1  | UPVC pipe for drain                                               | Prince / Aashirvad / supreme/Finolex                                     |
| 6.2  | Cu (copper) refrigerant Pipes                                     | Totaline/Rajco/Mazflow/Mandev                                            |
| 7.   | <b>Insulation</b>                                                 |                                                                          |
| 7.1  | Expanded Polystyrene (TF Quality) (Pre-moulded pipe section/slab) | Beard Sell/ Cooline                                                      |
| 7.2  | Cross Linked Polyethylene                                         | Trocellen/Supreme                                                        |
| 7.3  | Glass Wool                                                        | Owens Corning/ U.P. Twiga                                                |
| 7.4  | Closed Cell Elastomeric Insulation                                | Armacell/K-flex/A-flex                                                   |
| 7.5  | Aluminum Tape                                                     | Johnson/ Birla 3M                                                        |
| 7.6  | Acoustic Lining                                                   | UP Twiga/ Lloyd Insulation                                               |
| 7.7  | Non Woven Polyester (Mikron)                                      | Mikron                                                                   |

|          |                                                                  |                                                    |
|----------|------------------------------------------------------------------|----------------------------------------------------|
| <b>8</b> | <b>Electrical Equipment</b>                                      |                                                    |
| 8.1      | Electric Motor (TEFC)                                            | Siemens/ Kirloskar/ ABB/ Crompton                  |
| 8.2      | Starters/ Switch gear                                            | Siemens/ L&T/ Group Schneider (MG) France          |
| 8.3      | Miniature Circuit Breaker (MCB)                                  | Legrand/ Hager/L&T / Schneider/Siemens             |
| 8.4      | MCB / MCCB Distribution Board                                    | Legrand/ Hager/L&T / Schneider/Siemens             |
| 8.5      | Moulded Case Circuit breaker (MCCB)                              | L&T/ Group Schneider (MG)NS /Siemens/ GE Power/    |
| 8.6      | Air Circuit Breaker (ACB)                                        | Siemens/ L&T/ Group Schneider (MG)NW/ GE Power/    |
| 8.7      | Earth leakage circuit Breaker (ELCB)                             | Legrand/Schneider/ Hager / L & T (Larsen & Toubro) |
| 8.8      | Push Button Starter                                              | Siemens/ L&T/Group Schneider (MG)                  |
| 8.9      | Auxiliary Relays/ Contactors                                     | Siemens/ L&T/ Group Schneider (MG) France          |
| 8.10     | Line Type Fuse                                                   | Siemens/ L&T/GE                                    |
| 8.11     | Timer                                                            | Siemens/ L&T/GE                                    |
| 8.12     | Terminal Block                                                   | Elmax / WAGO/Connectwell                           |
| 8.13     | Voltmeter/ Ammeter (Digital)                                     | L&T/ Enercon / Elmeasure/ Automatic Electric       |
| 8.14     | Indicating Lamps (LED Type)/ Push Button                         | Siemens/ L&T/ Vaishno                              |
| 8.15     | Single Phase Preventer (Current Base)                            | L&T/ Minlec                                        |
| 8.16     | Electronic Digital Meters<br>(A/V/PF/Hz/KW/KWA) With LED Display | Enercon /L&T/Elmeasure/HPL                         |
| 8.17     | Selector Switches/ Toggle Switch                                 | Siemens/ L&T/ Kaycee                               |
| 8.18     | Change over switch                                               | Siemens/ L&T/ HH Elcon/ HPL-Socomec                |
| 8.19     | Protection Relay                                                 | Alstom/ L&T/ Siemens                               |
| 8.20     | Overload Relays with built in single phase preventer             | L&T/ Minilec/Siemens/ Group Schneider (MG)         |

### Schedule of quantities

Note:- Contractors are advised to quote for Part- 'A' Supplying, Installation, Testing and Commissioning (SITC) works only. Rates for Buy back of old AC units mentioned at Part-'B' and rates for CAMC of AC units as mentioned at Part-'C' for period of six years after expiry of Defects Liability Period (DLP) are pre-fixed by LIC of India. Bidders are requested to take the same into account and quote accordingly.

Bidders are advised to quote price bid in the uploaded excel sheet only.

Please Note that No increase/ decrease on rates of Part- B and Part-C is allowed.

| S No. | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Qty. | Unit | Rate (INR) | Amt. (INR) |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------------|------------|
|       | <b>Section A</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |      |            |            |
| 1     | Supplying, Installation, Testing and Commissioning of VRF / VRV air conditioning system outdoor unit (ODU) complying type-IV OEM standards working on CFC free refrigerant, R410A or other required/suitable green equivalent refrigerant for nonstop cooling even at 46°C and coefficient of performance (COP) not less than 3.5, horizontal/vertical hot air discharge operation in cooling mode with full inverter based VRF/VRV technology, microprocessor based control compressor starter/control panel complete with Inverter grade scroll/rotary compressor, air cooled, anti corrosive copper condenser coil of suitable shape for increasing maximum heat transfer area, built in oil separator, accumulator and oil receiver, copper tube aluminium fin air cooled condenser, fan with motor, internal copper refrigerant piping, internal wiring and first charge of refrigerant etc. all housed in powder coated weather proof cabinet to be installed on provided angle iron frame or suitable foundation connected to the system in approved manner complete. The outdoor units shall be suitable for operation on 415 ± 10% |      |      |            |            |

| S No. | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Qty. | Unit | Rate (INR) | Amt. (INR)   |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------------|--------------|
|       | volts, 50Hz, 3 phase AC power supply. VRF unit shall be supplied with operating panel for operation & control. ODU to have standard factory coated treatment for rust / corrosion for panels, motor, heat exchanger etc.<br><br>The rates are inclusive of any initial charge or top up of refrigerant which includes not only units but also refrigerant lines and oil required, includes hot dip galvanized stand for outdoor units with Stainless fasteners and serrated rubber pads. The panel must be 100% compatible with BMS. The unit(s) must also be provided with self addressable control system for control of indoor & other outdoor machines as per circuit design. The cost should include first charge of R410A gas as per requirement to run the system. Any interconnecting joint for outdoor units shall form a part of this item.<br><br>Makes: Carrier, Daikin, Hitachi, Blue Star, Voltas (Outdoor units are with Cooling mode only.) |      |      |            |              |
| 1.1   | VRF outdoor unit as above with Capacity 18 HP (Minimum).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 15   | Nos. | 353200     | 52,98,000.00 |
|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |      |            |              |
| 2     | <b><u>VRF Evaporating (Indoor) Units</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |      |            |              |
|       | Supply, Installation, Testing and commissioning of Floor mounted AHUs of following capacity and air flow with necessary filters, mounting accessories, fastners etc. complete as required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |      |      |            |              |
| 2.1   | 16800 CFM /42 TR (floor Mounted) high static AHU Units Floor Mounted type with pre-filter,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1    | No.  | 957600     | 9,57,600.00  |

| S No. | DESCRIPTION                                                                                                                                                                                                     | Qty. | Unit | Rate (INR) | Amt. (INR)   |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------------|--------------|
|       | corded remote, panel with all required accessories complete as per specifications and site conditions as required.                                                                                              |      |      |            |              |
| 2.2   | 14800 CFM /37 TR (floor Mounted) high static AHU Units Floor Mounted type with pre-filter, corded remote, panel with all required accessories complete as per specifications and site conditions as required.   | 3    | No.  | 843600     | 25,30,800.00 |
| 2.3   | 11200 CFM /28 TR (floor Mounted) high static AHU Units Floor Mounted type with pre-filter, corded remote, panel with all required accessories complete as per specifications and site conditions as required.   | 1    | No.  | 638400     | 6,38,400.00  |
| 2.4   | 3600 CFM /9 TR (floor Mounted type) high static AHU Units Floor Mounted type with pre-filter, corded remote, panel with all required accessories complete as per specifications and site conditions as required | 1    | No.  | 216000     | 2,16,000.00  |
| 2.5   | SITC of 1.5 TR Cassette type Indoor unit with necessary accessories for connection to Outdoor unit.                                                                                                             | 2    | No.  | 33000      | 66,000.00    |
|       |                                                                                                                                                                                                                 |      |      |            |              |
| 2.6   | Supply, Installation, Testing and Commissioning of AHU Expansion KIT compatible with AHU Unit and Out Door Unit complete with necessary accessories and with corded Remote for following units                  |      |      |            |              |
| a     | 16800 CFM/42 TR (floor Mounted ) AHU Units                                                                                                                                                                      | 1    | No.  | 67500      | 67,500.00    |
| b     | 14800 CFM/37 TR (floor Mounted ) AHU Units                                                                                                                                                                      | 3    | No.  | 45000      | 1,35,000.00  |
| c     | 11200 CFM/28 TR (floor Mounted ) AHU Units                                                                                                                                                                      | 1    | No.  | 24300      | 24,300.00    |
| d     | 3600 CFM/9 TR (floor Mounted / ceiling suspended) AHU Units                                                                                                                                                     | 1    | No.  | 16000      | 16,000.00    |

| S No. | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Qty. | Unit | Rate (INR) | Amt. (INR)  |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------------|-------------|
| 2.5   | Supply, Installation, Testing and commissioning of Touch type Wifi Central Controller with on/off & temp. Control. Display should be min. 7" (inch) and BMS compatible including necessary lengths of wires and cables MODBUS protocol for connectivity with BMS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1    | No   | 40000      | 40,000.00   |
| 2.6   | Supply, Installation, Testing & Commissioning of Refnet /Refrigerant "Y"/ " T " joints with necessary insulation as recommended by manufacturer, suitable for outdoor machines and indoor machines quoted.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 18   | No   | 6000       | 1,08,000.00 |
| 3     | Supply, installation, testing and commissioning of refrigerant Suction / liquid piping using Copper pipes and fittings like elbows, couplers, tee joints, brass fittings, "U" loops, expansion loops etc. Supports consisting of GI box / "C" sections & suitable anchor fasteners with full threaded GI rods, insulation of pipes using 19 mm thick elastomeric closed cell Nitrile Rubber insulation material having class "O" fire properties, structural clamps with hard PVC pipe sleeves under the clamps to protect insulation at supports, tagging to enable tracing connectivity to respective units as per shop drawings to be generated by contractor and approved by consultant. Submission of test reports in approved format forms a part of this item scope. Making up of any leakages occurring during testing / commissioning / DLP from handing over, including supply, labour, consumables, refrigerant, top up, oil top up and incidental expenses also forms a part of the scope covered under this item. Only one length will be considered for both |      |      |            |             |

| S No. | DESCRIPTION                                                                                                                                                                                                                                                                                                                                     | Qty. | Unit | Rate (INR) | Amt. (INR)  |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------------|-------------|
|       | refrigerant and liquid lines.<br><br>NOTE : The contractor shall submit the copper piping route to LIC and the work shall be carried out upon approval of LIC Engineer. During the execution there shall be minimum damages to wall/ceiling/false ceiling. The openings made in wall/false ceiling shall be made good after completion of work. |      |      |            |             |
| a     | Suitable for AHUs of different capacity mentioned. The dia. of copper pipe shall be as per manufacturer specifications                                                                                                                                                                                                                          | 380  | RMT  | 1500       | 5,70,000.00 |
| b     | Suitable for 1.5 TR. Cassette unit. The dia. of copper pipe shall be as per manufacturer specifications                                                                                                                                                                                                                                         | 30   | RMT  | 1000       | 30,000.00   |
| 4     | Providing and fixing Aluminium cladding with 26 SWG for refrigerant line (liquid + gas line)                                                                                                                                                                                                                                                    | 100  | RMT  | 100        | 10,000.00   |
|       |                                                                                                                                                                                                                                                                                                                                                 |      |      |            |             |
| 5     | Supply, Installation, Testing & Commissioning of Control Cabling from Indoor to Outdoor units Cabling Work.                                                                                                                                                                                                                                     |      |      |            |             |
| a     | Supply, Installation, Testing & Commissioning of 3 core x 1.5 sq.mm Cu. Cable (armoured and overall PVC sheathed) for control cum transmission wiring between ODU & IDU including PVC conduits as required                                                                                                                                      | 750  | RMT  | 200        | 1,50,000.00 |
| b     | Supply, Installation, Testing & Commissioning of 2C X 1 sq.mm Copper Communication Cable (armoured and overall PVC sheathed) from Central Controller to the ODU's, and data cable from controller to PC.                                                                                                                                        | 1000 | RMT. | 160        | 1,60,000.00 |
|       | <b>Drain Piping:</b>                                                                                                                                                                                                                                                                                                                            |      |      |            |             |
| 6     | Supply, Installation, Testing & Commissioning of rigid PVC piping of the following sizes with 6 mm thick nitrile rubber foam insulation.                                                                                                                                                                                                        |      |      |            |             |

SITC of VRV/VRF system from 3<sup>rd</sup> to 7<sup>th</sup> floor at LIC Digital,  
building at Bandra Kurla Complex, Mumbai.

| S No.    | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                            | Qty. | Unit | Rate (INR) | Amt. (INR) |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------------|------------|
| a        | 50 mm dia. NB                                                                                                                                                                                                                                                                                                                                                                                          | 75   | RMT  | 350        | 26,250.00  |
| b        | 40 mm Dia. NB                                                                                                                                                                                                                                                                                                                                                                                          | 75   | RMT  | 275        | 20,625.00  |
|          |                                                                                                                                                                                                                                                                                                                                                                                                        |      |      |            |            |
| <b>7</b> | Modifications in the existing ducting in AHU Room as per requirements for connectivity to mouth piece of new AHU. The ducting shall be carried out such that there shall be minimum pressure drop at the mouth piece/main duct. The detailed scheme regarding the modification in the duct shall be submitted to LICl well in advance and the work shall be carried out upon approval of LICl Engineer |      |      |            |            |
| a        | 22 Gauge                                                                                                                                                                                                                                                                                                                                                                                               | 80   | Sqm  | 1100       | 880000.00  |
| b        | 24 Gauge                                                                                                                                                                                                                                                                                                                                                                                               | 10   | Sqm  | 900        | 9000.00    |
|          |                                                                                                                                                                                                                                                                                                                                                                                                        |      |      |            |            |
| <b>8</b> | <b>Insulation of Ducts and AHU Rooms</b>                                                                                                                                                                                                                                                                                                                                                               |      |      |            |            |
| a        | Supply & fixing of Thermal insulation for supply air duct using 13mm thick class " O " Closed cell nitrile rubber with anti-microbial coating on it. Insulation shall have Thermal conductivity of 0.033 W/(m.K) and water vapor permeance of 0.10. Joints should be sealed with 50 mm wide 3 mm thick self adhesive tape. The duct shall be stick with recommended adhesive.                          | 40   | Sqm  | 665        | 26,600.00  |
| b        | Supply & fixing acoustic insulation for ducting using Class "1" closed cell elastomeric insulation of 10mm thick Nitrile rubber insulation adhesive, longitudinal & transverse joints sealed with adhesive in neat & clean manner. Material shall be processed Nitrile                                                                                                                                 | 100  | Sqm  | 700        | 70,000.00  |



| S No. | DESCRIPTION                                                                                                                                                                                                                                                                           | Qty. | Unit | Rate (INR) | Amt. (INR)  |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------------|-------------|
|       | Rubber foam with anti-microbial protection. Insulation shall have thermal conductivity of 0.047 W/(m °K) and density of 140 - 180 kg/m <sup>3</sup> .                                                                                                                                 |      |      |            |             |
| c     | Wall acoustic of AHU rooms: Providing & fixing Acoustic insulation with 12mm thick Glass Wool insulation (40Kg/CuM Density) to be fixed by using shakolite primer, Hot bituman, and to be held with wooden / GI channels strips as per site conditions and wire netting.              | 40   | Sqm  | 700        | 28,000.00   |
|       |                                                                                                                                                                                                                                                                                       |      |      |            |             |
| 9     | <b>PROVIDING GRILLES &amp; DAMPERS</b>                                                                                                                                                                                                                                                |      |      |            |             |
| a     | Providing & fixing of GI Main Volume control Damper for ducts. These shall be provided with concealed gears, plastic operator etc. manual control of volume of air flow and for proper balancing of the air distribution system as per the approved shop drawings and specifications. | 2    | Sqm  | 6000       | 12,000.00   |
| b     | Providing & fixing of Linear Aluminium grilles. These shall be extruded aluminium grille of suitable size as per the site requirement and colour as approved by LIC Engineer and as per the approved shop drawings and specifications.                                                | 20   | Sqm  | 7000       | 1,40,000.00 |
| c     | Providing & fixing of opposed blade Aluminium grille dampers. These shall be of extruded aluminium of suitable size as per the site requirement as approved by LIC Engineer and as per the approved shop drawings and specifications.                                                 | 4    | Sqm  | 7000       | 28,000.00   |
|       |                                                                                                                                                                                                                                                                                       |      |      |            |             |

| S No.     | DESCRIPTION                                                                                                                                                                                                                                                                                        | Qty. | Unit  | Rate (INR) | Amt. (INR)            |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|------------|-----------------------|
| <b>10</b> | <b>Providing &amp; fixing of Canvas Connection for AHU units</b>                                                                                                                                                                                                                                   |      |       |            |                       |
|           | Supply, Installation, Testing & Commissioning of Flexible connections between mouth piece of Fan and initial piece of ducting with inspection zip. Flexible connections shall be double thickness non-flammable material (Fire retardant type).                                                    | 7    | Nos.  | 4500       | 30,000.00             |
| <b>11</b> | SITC of GI ladder type cable tray (1.2 mm thickness) of following sizes for supporting refrigerant piping or cables etc. in shafts / terrace, complete with supports, necessary bends, reducers etc. anchored along the wall / suspended from the ceiling with necessary MS supports. Make Advance |      |       |            |                       |
| a         | 450mm wide                                                                                                                                                                                                                                                                                         | 80   | RMT   | 550        | 44,000.00             |
| b         | 300mm wide                                                                                                                                                                                                                                                                                         | 80   | RMT   | 400        | 32,000.00             |
| <b>12</b> | Duct Cleaning of 5 floors with robotic arm including submission of CD for video of pre cleaning and post cleaning of duct.                                                                                                                                                                         | 5    | FLOOR | 7000       | 35,000.00             |
|           |                                                                                                                                                                                                                                                                                                    |      |       |            |                       |
|           | <b>Total of Part- A</b>                                                                                                                                                                                                                                                                            |      |       |            | <b>1,16,08,575.00</b> |

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                         |   |     |             |                    |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-----|-------------|--------------------|
|   | <b>Part-B: Buy back of old AC system at BKC (Excluding GST)</b>                                                                                                                                                                                                                                                                                                                                                                         |   |     |             |                    |
| 1 | Buyback of old AHUs 6 Nos., chillers Units 3 Nos., including 3 Nos. pumps, old valves, old rusted MS frames, header lines including chilled water lines in shaft and allied valves, dismantling and taking away of the same.                                                                                                                                                                                                            | 1 | Lot | 700000      | 7,00,000.00        |
|   | <b>Total of Part- B</b>                                                                                                                                                                                                                                                                                                                                                                                                                 |   |     |             | <b>7,00,000.00</b> |
|   |                                                                                                                                                                                                                                                                                                                                                                                                                                         |   |     |             |                    |
|   | <b>Part- C COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT (CAMC)</b>                                                                                                                                                                                                                                                                                                                                                                         |   |     |             |                    |
| 1 | COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT (CAMC) for the above entire VRF system (all parts repair /replacement inclusive for both indoor and outdoor units) with spare parts & labour but excluding GST, for the period of 6 (SIX) years. The CAMC will be in force after completion of defects liability period of one year. GST will be payable extra as per applicable rule and Government of India (GOI) instructions time to time |   |     |             |                    |
| a | First Year                                                                                                                                                                                                                                                                                                                                                                                                                              | 1 | set | 5,67,000.00 | 5,67,000.00        |
| b | Second Year                                                                                                                                                                                                                                                                                                                                                                                                                             | 1 | set | 5,89,680.00 | 5,89,680.00        |
| c | Third Year                                                                                                                                                                                                                                                                                                                                                                                                                              | 1 | set | 6,13,267.00 | 6,13,267.00        |
| d | Fourth Year                                                                                                                                                                                                                                                                                                                                                                                                                             | 1 | set | 6,37,798.00 | 6,37,798.00        |
| e | Fifth Year                                                                                                                                                                                                                                                                                                                                                                                                                              | 1 | set | 6,63,310.00 | 6,63,310.00        |
| f | Sixth Year                                                                                                                                                                                                                                                                                                                                                                                                                              | 1 | set | 6,89,842.00 | 6,89,842.00        |

**Total for COMPREHENSIVE ANNUAL  
MAINTENANCE CONTRACT (CAMC)**

**37,60,897.00**