

**HLL LIFECARE LIMITED**  
**(A Government of India Enterprise)**  
**P.B.NO.2, PEROORKADA.P.O,**  
**THIRUVANANTHAPURAM - 695 005**  
**KERALA, INDIA**

**TECHNICAL BID**

**FOR**

**HT ELECTRIFICATION WORK OF**  
**HLL DIAGNOSTIC & POLYCLINIC FACILITY**

**AT**

**TRIDA COMPLEX, NEAR MEDICAL COLLEGE HOSPITAL,**  
**THIRUVANANTHAPURAM**

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## **PREQUALIFICATION REQUIREMENTS**

1. The Electrical Contractor should possess valid 'A' class license issued by State Electricity Authorities.
2. Tenderer should have minimum 5 years experience in the relevant field.
3. Tenderer should have satisfactorily completed minimum two HT Electrifications works of similar nature of Rs 30 Lakhs or above during the last 5 years
4. Average annual financial turnover of the bidder during the last 3 years, ending 31st March of the previous financial year, should be at least Indian Rupees (INR) 50 Lakhs
5. Power of Attorney, in case an authorized representative has signed the tender.
6. The duly signed acceptance form confirming that all terms & conditions, technical specifications, drawings & volume of job are understood by the bidder. Certificate that bid is in total conformity with the specifications and terms and conditions mentioned in the bid document and certificate on period of validity (sheet enclosed)
7. Deviation if any, giving reasons for the deviation.
8. Even if the bidder meets the above qualifying criteria, they are subject to being disqualified if they have:

Record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.

**Note:** - HLL does not bind itself to accept the lowest or any tender, and reserves to itself the right to accept or reject any or all the tenders, either in whole or in part without assigning any reason for doing so.



F. Tenderer should have satisfactorily completed minimum two HT Electrifications works of similar nature of Rs 30 Lakhs or above during the last 5 years

Enclose completion certificates from the clients in proof of the same.

Note: Details to be furnished in **Annexure I**

G. Total number of ongoing installations or orders in hand for similar electrical works

Note: Details to be furnished in **Annexure II**

H. Has the Contractor/ Firm/Company ever been black listed by the Govt. /or the registering authority. (Yes/ No)

a. If so, give the period and details.

I. Average annual financial turn over of the bidder during the last 3 years, ending 31st March of the previous financial year, should be at least INR 100 Lakhs.

a. Annualized turn over of the Contractor/Firm/Company in the last 3 years ending 31.03.2013

1.	2012-2013:	INR.
2.	2013-2014:	INR.
3.	2014-2015:	INR.

Note: Details to be furnished in **Annexure III**

J. Details of organization: (Details to be enclosed in **Annexure IV**)

1. Technical personnel: i) No. of Graduate Engineers: ii) No. of Diploma Holders:  
2. Non Technical Management

K. Detailed Technical Specifications in **Annexure V** (filled and enclosed)

L. Completion Period: in **Annexure VI** (filled and enclosed)

M. Acceptance Form in **Annexure VII**

N. CERTIFICATE as per **Annexure VIII**

I/We hereby confirm that the details given in the application form and Annexure I to Annexure VII are correct to the best of my/our knowledge. I /We have no objection, in Owner (HLL Lifecare Limited) contacting any of our clients for reference.

Place:  
Date:

Signature  
Name and address of the Party

**ANNEXURE - I**

<b>DETAILS OF ORDERS FOR SIMILAR ELECTRICAL WORKS SUCCESSFULLY COMPLETED DURING THE LAST 5 YEARS</b>				
S. No.	Name of Client with full address, telephone numbers and nature of work	Order details such as quantity etc.	Value of work completed	Period of Completion with dates (in months)

**NOTE:**

**TENDERER SHOULD HAVE SATISFACTORILY COMPLETED**

Minimum two HT Electrifications works of similar nature of Rs 30 Lakhs or above during the last 5 years

**SIGNATURE OF BIDDER**

**ANNEXURE - II**

<b>TOTAL NUMBER OF ONGOING INSTALLATIONS OR ORDERS IN HAND FOR SIMILAR ELECTRICAL WORKS</b>			
<b>S. No.</b>	<b>Name of Client with full address, telephone numbers and nature of work</b>	<b>Order details such as quantity, completion time etc.</b>	<b>Value of works</b>

**SIGNATURE OF BIDDER**

### **ANNEXURE III**

**(ENCLOSE DETAILS OF ANNUALISED TURN OVER OF THE CONTRACTOR/FIRM/COMPANY IN THE LAST 3 YEARS ENDING 31-03-2015)**

2012-2013: INR.

2013-2014: INR.

2014-2015: INR.

**(Enclose audited Balance sheets in proof for the above period)**

**SIGNATURE OF BIDDER**

**Note:** Average annual financial turn over of the bidder during the last 3 years, ending 31<sup>st</sup> March of the previous financial year, should be at least INR 50 Lakhs.



**ANNEXURE-IV**

**DETAILS OF ORGANIZATION**

Sl. No	Name & Postal Address	Date of Birth	Qualification	Total experience in years	Name of organization served showing position held and period of service in each
1.	<b>A.ENGINEERING PERSONNELS</b>				
2					
3.					
4					
5.					
6					
1.	<b>B. DIPLOMA HOLDERS/ ITI PERSONNEL</b>				
2					

Attach an organization chart. Also mention the no. of engineering/technical personnel you will engage for the satisfactory completion of the tendered work.

**SIGNATURE OF BIDDER**

**ANNEXURE V**

**(ENCLOSE DETAILED TECHNICAL SPECIFICATION OF ITEMS QUOTED  
AGAINST THIS TENDER, INCLUDING MAKES, DETAILED CATALOGUES,  
WARRANTY PERIOD ETC.)**

**NOTE: THE BIDDER SHOULD ALSO INDICATE DEVIATIONS, IF ANY FROM  
THE TENDER SPECIFICATIONS**

**SIGNATURE OF THE BIDDER WITH SEAL**

**ANNEXURE-VI**

**COMPLETION PERIOD**

**SIGNATURE OF THE BIDDER WITH SEAL**

## ANNEXURE VII

### ACCEPTANCE FORM

(To be submitted in the letter pad of the firm indicating full name and address, telephone & fax numbers etc.)

From

To

SENIOR MANAGER (INTERNAL PROJECTS)  
CENTRAL ENGINEERING DIVISION  
HLL LIFECARE LIMITED  
PEROORKADA,  
THIRUVANANTHAPURAM – 695 005  
KERALA, INDIA

Dear Sir,

I / We, hereby offer to supply/install/testing/validate/commission as detailed in schedule hereto or such portion thereof as you may specify in the acceptance of Bid at the price given in the price bid and agree to hold this offer open for **90 Days** from the date of bid opening prescribed by the Purchaser. I/We have understood the terms and conditions mentioned in the invitation for bid and Conditions of Contract furnished by you and have thoroughly examined the specifications quoted in the bid document hereto and are fully aware of the nature of the scope of work required and my/our offer is to comply strictly in accordance with the requirement and the terms and conditions mentioned above.

The following pages have been added to and form part of this bid.

Yours faithfully,

**SIGNATURE OF THE BIDDER WITH SEAL**

**ANNEXURE VIII**

**CERTIFICATE**

I / we hereby confirm that the information given with this bidding document is correct. If, at any stage, it is found to be incorrect, I / we understand that the contract will be liable to be terminated and action could be taken against me/us by the Company for damages.

**SIGNATURE (S) OF BIDDER WITH SEAL**

(To be submitted in the letter pad of the firm indicating full name and address, telephone & fax numbers etc.)

### CHECK LIST FOR TECHNICAL BID

S. No.	Item	Yes/No	Remarks
1	Enclosed Tender Fees as prescribed in the tender		
2	Enclosed EMD as prescribed in the tender		
3	Application of Pre-qualification duly filled, signed and sealed by the tenderer		
4	The Bidder should be an Electrical Contractor and should possess valid 'A' class license issued by State Electricity Authorities. Self attested copy of the valid license shall be enclosed.		
5	Enclosed completion certificates from the clients for the satisfactory completion of similar electrical works in the past five years – <b>Annexure I</b>		
6	Enclosed details of ongoing installations or orders in hand for similar works - <b>Annexure II</b>		
7	Enclosed Turnover Details – <b>Annexure III</b>		
8	Enclosed Details of Organization – <b>Annexure IV</b>		
9	Enclosed Technical Specification including Makes, Catalogue etc. – <b>Annexure V</b>		
10	Attached Completion Period – <b>Annexure VI</b>		
11	Enclosed signed and sealed Acceptance Form – <b>Annexure VII</b>		
12	Enclosed Certificate signed and sealed – <b>Annexure VIII</b>		

**SIGNATURE OF THE BIDDER WITH SEAL**

**HLL LIFECARE LIMITED  
(A Government of India Enterprise)  
P.B.NO.2, PEROORKADA.P.O,  
THIRUVANANTHAPURAM - 695 005  
KERALA, INDIA**

**PRICE BID**

**FOR**

**HT ELECTRIFICATION WORK OF  
HLL DIAGNOSTIC & POLYCLINIC FACILITY**

**AT**

**TRIDA COMPLEX, NEAR MEDICAL COLLEGE HOSPITAL,  
THIRUVANANTHAPURAM**

**HLL LIFECARE LIMITED**  
(A Government of India Enterprise)  
Internal Projects - Central Engineering Division,  
Peroorkada. PO, Thiruvananthapuram – 695005,  
Kerala, India  
Phn: 0471 – 2437270

**INVITATION FOR BIDS (IFB)**

**IFB No:** HLL/CED-IP/DF&PC/ELECTRICAL/2015  
**Date :** 10-12-2015

HLL Lifecare Limited (HLL), a Government of India Enterprise, is setting up a Diagnostic Facility and Poly Clinic at TRIDA Complex, Near Medical College, Thiruvananthapuram. For the said project, Sealed and Super scribed bids are invited from competent and experienced Electrical contractors who are capable to do the following work meeting the requirements as per our tender.

SI No	Name of Work	EMD Amount
1	Supply, Installation, Testing and Commissioning of HT Electrification work of HLL Diagnostic & Polyclinic Facility at TRIDA Complex, Near Medical College Hospital, Thiruvananthapuram	Rs 50,000/-

**2. Eligibility criteria for QUOTING:**

- a) The Electrical Contractor should possess valid 'A' class license issued by State Electricity Authorities.
  - b) Tenderer should have minimum 5 years experience in the relevant field.
  - c) Tenderer should have satisfactorily completed minimum two HT Electrifications works of similar nature of Rs 30 Lakhs or above during the last 5 years
  - d) Average annual financial turn over of the bidder during the last 3 years, ending 31st March of the previous financial year, should be at least Indian Rupees (INR) 50 Lakhs
3. A complete set of tender documents can be downloaded from our Website **www.lifecarehll.com** from the date of issue of tender document.

Tender forms shall be filled in ink or typed. No tender filled in pencil shall be considered. The tenderer shall sign and seal the form at each page and at the end, in token of acceptance of all the terms and conditions of the tender.

4. The bid documents will be available up to 15.00 Hrs. on the previous working day of the opening of the bids. The scheduled date for issue, receipt and opening of bids is as follows.
  - a) Date of issue of tender document - 10-12-2015
  - b) Last date and time for receipt of bids - 29-12-2015 at 15:00 Hrs
  - c) Date and time of opening of bids - 29-12-2015 at 15:30 Hrs



5. Address for communication, receipt and Place of opening of bids.

SENIOR MANAGER (INTERNAL PROJECTS)  
CENTRAL ENGINEERING DIVISION  
HLL LIFECARE LIMITED  
PEROORKADA,  
THIRUVANANTHAPURAM – 695 005  
KERALA, INDIA  
Phn: 0471 – 2437270  
E-mail: srnair@lifecarehll.com, harikrishnankp@lifecarehll.com

6. The completed bid documents and all schedules should be submitted to **Senior Manager (Internal Projects)** in the above address along with sealed bids and the EMD. Bids received after due date and time will be rejected. Any bid not accompanied by EMD will be rejected.
7. Bids will be opened in the presence of Bidders representative(s) who choose to attend on the specified date and time, at the office of HLL at the address given in Clause 5 above.
8. In the event of the date specified for bid receipt and opening being declared as a closed holiday for HLL's office, the due date for submission of bids and opening of bids will be the following working day at the appointed times.
9. HLL may, at its discretion, extend this deadline for submission of bids by amending the Bid Documents or any other reasons, in which case all rights and obligations of the HLL and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.
10. HLL will not be held responsible for the postal delay, if any, in the delivery of the bidding document or the non-receipt of the same. Bids sent by Telex/Fax/Telegraph will not be accepted.
11. The company reserves the right to club or split the items of works, change the qualifying criteria at their discretion and to reject or cancel the tender without assigning any reason there of.

**SENIOR MANAGER (INTERNAL PROJECTS)**

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## SCHEDULE I

### CONDITIONS OF BID

#### 1. Definitions

In this Contract, the following words and expressions shall have the meanings as stated below:

- a. **"INVITATION FOR BID"** shall mean and include the present document, and such other complements and agenda, which may subsequently be issued in this connection.
- b. **"BIDDER/TENDERER"** shall mean the person, firm or Corporation submitting a bid against this invitation for bid and shall also include his agents and representatives.
- c. **"OWNER"** shall mean **HLL LIFECARE LIMITED (HLL)** (Thiruvananthapuram) or its units thereof.
- d. **"ENGINEER-IN-CHARGE"**, shall mean the Engineer appointed by the Owner to supervise all activities of the project.
- e. **"CONTRACTOR"**, shall mean the successful bidder whose tender has been accepted by the Owner and to whom the order is placed by the Owner and shall include his heirs, legal representatives, successors etc.
- f. **"PERMANENT WORKS"**, means and include all the work specified or set forth and required if any by the specification, drawings and other documents which form part of this contract or to be implied thereof or incidental thereof to be hereafter or required in such further explanatory instructions, drawings etc., as shall from time to time during the progress of the work be given by the HLL.
- g. **"SITE"**, shall mean the actual place i.e. **HLL FACILITY, TRIDA COMPLEX, NEAR MEDICAL COLLEGE HOSPITAL, THIRUVANANTHAPURAM**, where the project is to be executed.
- h. **"PROJECT"**, shall mean entire work specified in the contract documents inclusive of extra items/ extra quantities (if any) executed during the contract period.
- i. **"ACCEPTANCE LETTER"**, shall mean written consent by a letter of Owner to the bidder intimating him that his tender has been accepted.
- j. **"CONTRACT"**, shall mean the articles of Contract Agreement, the conditions of contract, schedule of quantities, specifications, drawings attached and duly signed by the Owner and the Contractor.
- k. **"DATE OF CONTRACT"**, shall mean the date on which the successful bidder has accepted the notification of award.
- l. **"CONTRACT PERIOD"**, shall mean the period (including rainy season) specified in the tender documents during which the contract shall be executed.
- m. **"COMPLETION CERTIFICATE"**, shall mean the certificate issued by the Owner to the Contractor after successful completion of the project.
- n. **"EXTRA ITEMS"**, are those items, which are not appearing in the Schedule of Items but required to be executed during the project period.

## 2. Bid Information and Period of Validity

2.1 Bidders shall submit their bids in two parts (**TECHNICAL BID** and **PRICE BID**)

2.2 The Technical Bid must include the following information;

- a. Enquiry No.
- b. Tender Fees
- c. Earnest Money Deposit as prescribed in the tender
- d. All the details and documents mentioned in the Technical Bid.
- e. Promised Completion Schedule
- f. Certificate that bid is in total conformity with the specifications and terms and conditions mentioned in the bid document and if not, list of exclusions, and/or exceptions.
- g. All other documents/certificate/information as specified in the bid document.

2.3 The Price Bid must be as per the following

- a) The bid is invited for “**Supply, Installation, Testing and Commissioning of HT Electrification work of HLL Diagnostic & Polyclinic Facility at TRIDA Complex, Near Medical College Hospital, Thiruvananthapuram**” as per the Specification, Terms and Conditions specified in the Bid Documents. The Bidder shall give the rates inclusive of relevant taxes, duties, other levies, on the appropriate price schedule (**Schedule of Quantities**) attached to these documents for completing the above work as per the Specification, Terms and Conditions as specified in the Bid Documents.
- b) Bidder must quote for unit price and total price based on the requirement shown in the bid document.
- c) Price should be firm without any escalation on any account till the completion of work.

2.4 Bids shall remain valid for **90 days** after the date of bid opening prescribed by the Purchaser.

## 3. Format and Signing of Bid

3.1 Bidders shall submit their bids in two parts (TECHNICAL BID and PRICE BID) as under.

- a) Technical bids, in duplicate clearly marking each “Original Bid” and “Copy Bid”, as appropriate, consisting of technical details bringing out clearly in a separate sheet, the deviations in specifications if any, from that of ‘Technical Specifications’ and also clause-by-clause compliance of specifications and commercial terms and conditions and EMD, excluding price, in separate sealed covers super scribing “Technical Bid” inside a main cover.
- b) Price bids, in duplicate clearly marking each “Original Bid” and “Copy Bid”, as appropriate, showing only item wise and total prices in separate sealed covers super scribing “Price Bid” inside a main cover.

3.2 When the main cover is opened on the date and time scheduled for bid opening, only the technical bids will be opened.

3.3 Bidders whose technical bids are found substantially responsive will be informed of the date and time of opening of their price bids. Price bids of others will be returned to them unopened.

- 3.4 All pages of the bid, except for un-amended printed literature shall be signed by the person or persons signing the bid. The seal of the company shall be stamped in all pages.
- 3.5 Bids shall be made in English.
- 3.6 The bid shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by the Bidder, in which case such corrections shall be signed by the person or persons signing the bid.

#### **4. Submission of Bids**

##### **Sealing and Marking of Bids**

4.1 The envelopes shall be:

- (a) Addressed to the Owner in the following address and

SENIOR MANAGER (INTERNAL PROJECTS)  
CENTRAL ENGINEERING DIVISION  
HLL LIFECARE LIMITED  
PEROORKADA,  
THIRUVANANTHAPURAM – 695 005  
KERALA, INDIA  
Phn: 0471 – 2437270  
E-mail: srnair@lifecarehll.com, harikrishnankp@lifecarehll.com

- (b) Bear the Enquiry No, closing date and General description of item tendered, and the words “DO NOT OPEN BEFORE” 15.30 Hrs (IST) on \_\_\_ (Opening Date) \_\_\_\_\_

4.2 The inner envelopes shall indicate the name and address of the Bidder. If the outer envelope is not sealed and marked as indicated above, the Owner will assume no responsibility for the bid’s misplacement or premature opening.

4.3 Bids should be hand delivered or sent by courier/mail to ensure timely arrival. Telex, cable, e-mail or facsimile bids will be rejected.

##### **Deadline for submission of Bids**

4.4 The bids will be received by the Owner in the following address not later than the date and time specified in the Invitation for Bids.

SENIOR MANAGER (INTERNAL PROJECTS)  
CENTRAL ENGINEERING DIVISION  
HLL LIFECARE LIMITED  
PEROORKADA, THIRUVANANTHAPURAM – 695 005  
KERALA, INDIA  
Phn: 0471 – 2437270  
E-mail: srnair@lifecarehll.com, harikrishnankp@lifecarehll.com

4.5 In the event of the specified date for submission of Bids being declared a holiday for the Owner, the bids will be received up to the appointed time on the next working day.

- 4.6 The Owner may, at its discretion, extend this deadline for submission of bids by amending the Bid Documents or any other reasons in which case all rights and obligations of the Owner and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.
- 4.7 It is the responsibility of the bidders to see that the completed bidding documents whether sent by post or by courier or by person are received in the office of Executive Director (Internal Projects), in the above address by the date and time stipulated for receipt as above failing which the bid would be considered late and rejected. The Owner will not be held responsible for the postal delay, if any, in the delivery of the bidding document or the non-receipt of the same. Bids received after due date and time will be rejected. Mere handing over of the bid documents at reception counter or at any other counter or room or person cannot be considered as submission of bid.

## **5. Clarification of Bidding Documents**

A prospective Bidder requiring any clarification of the Bidding Documents may notify the Owner in writing, or by fax at the Owners mailing address indicated in the Invitation for Bids. The Owner will respond in writing to any request for clarification of Bidding Documents, which it receives not later than 7 days prior to the deadline for submission of Bids prescribed by the Owner.

## **6. Amendment of Bidding Documents**

- 6.1 At any time prior to the deadline for submission of bids, the Owner may, for any reason, modify the Bidding Documents by amendment.
- 6.2 The amendment will be notified in writing or fax or telegram or e-mail to all prospective Bidders, which have received the Bidding Documents and will be binding on them. Amendments will also be uploaded on the website.
- 6.3 In order to afford prospective Bidders reasonable time in which to take the amendment into account in preparing their bid, the Owner may, at its discretion, extend the deadline for the submission of bids.

## **7. Bid Opening by Owner**

- 7.1 The Owner will open bids, in the presence of the bidders' representatives who choose to attend, at the date and time specified and in the location given in this document. The Bidders' representatives who are present shall sign a register evidencing their attendance. In the event of the specified date of bid opening being declared a holiday for the Owner, the bids shall be opened at the appointed time and location on the next working day.
- 7.2 The Bidders' names, the presence or absence of the requisite EMD and such other details as the Owner, at its discretion, may consider appropriate will be announced at the opening.
- 7.3 The Owner will prepare appropriate bid opening register and bidders present during the opening of the bids and Owner shall sign the same.

## **8. Clarification of bids**

To assist in the examination, evaluation and comparison of bids, the Owner may, at its discretion, ask the bidder for a clarification of its bid. The request for clarification and the

response shall be in writing and no change in the rate or substance of the bid shall be sought, offered or permitted.

## **9. Inspection of site**

**Every tenderer is expected to inspect the site of the proposed work and acquaint himself with the site conditions, approaches etc. before quoting his rates.** No claim whatsoever should be entertained later on the plea of any difficulties involved in the execution of work, which was or was not foreseen by the tenderer.

## **10. Preliminary examination**

- 10.1 The Owner will examine the bids to determine whether they are complete, whether any computational errors, have been made, whether required EMD has been furnished, whether the documents have been properly signed, whether the bid validity is as required and whether the bids are generally in order.
- 10.2 Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be calculated. If there is a discrepancy between the words and figures of unit price, the amount in words of unit price shall prevail.
- 10.3 Prior to the detailed evaluation, the Owner will determine the substantial responsiveness of each bid to the bidding documents. For purposes of these clauses, a substantially responsive bid is one, which conforms to specifications and all the terms and conditions of the bidding documents without material deviation. The Owner's determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.
- 10.4 A bid determined as not substantially responsive will be rejected by the Owner and may not subsequently be made responsive by the bidder by correction of the non-conformity.
- 10.5 The Owner may waive any minor informality or non-conformity or irregularity in a bid, which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any bidder.
- 10.6 The Owner's determination as to the substantial responsiveness or otherwise of each bid or consideration of a minor informality or non-conformity or irregularity is final and conclusive.

## **11. Evaluation and comparison of bids.**

- 11.1 The purchaser reserves the right to examine the details given in the technical bid by visiting the office and work place of the bidder and take decision based on the visit.
- 11.2 The purchaser will technically evaluate all bids previously determined to be responsive and open the price bids previously determined to be substantially responsive and technically acceptable with intimation.

## **12. Post – qualification**

- 12.1 Notwithstanding the qualification requirements given in this document, the Owner will determine to its satisfaction whether the Bidder selected as having submitted the lowest evaluated responsive bid is qualified to satisfactorily perform the Contract.
- 12.2 The determination will take into account the Bidder's financial, technical and execution capabilities. It will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, as well as such other information as the Owner deems necessary and appropriate.
- 12.3 The Owner reserves the right to negotiate with the lowest evaluated responsive bidder.
- 12.4 An affirmative determination will be a prerequisite for award of the Contract to the Bidder. A negative determination will result in rejection of the Bidder's bid, in which event the Owner will proceed to the next lowest evaluated bid to make a similar determination of that bidder's capabilities to perform satisfactorily.

## **13. Award Criteria**

The Owner will award the Contract to the successful Bidder whose bid has been determined to be substantially responsive and has been determined as the lowest evaluated bid provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily for the items offered.

## **14. Notification of Award**

- 14.1 Prior to the expiration of the period of bid validity, the Owner will notify the successful Bidder in writing by or cable or telex or fax, to be confirmed in writing by post, that its bid has been accepted. The notification of award may be sent in the form of Letter of Intent and/or Work order.
- 14.2 The signed acceptance of the notification of award by the Contractor will constitute a concluded contract.

## **15. Security Deposit & Execution of Agreement**

- 15.1 On receipt of notification of award from the Owner, within thirty days the successful Bidder shall furnish the security deposit in the form of a Demand Draft from a nationalized bank drawn in favour of HLL Lifecare Limited, Peroorkada Thiruvananthapuram payable at Thiruvananthapuram for an amount equal to **5% of the contract price** on the value of the contract for his faithful execution of contract and shall execute an agreement with the Owner in the form attached on proper stamp paper.
- 15.2 The Security deposit should be valid until successful completion of the contract and acceptance and handing over of the works and will be released after acceptance of the work by the Owner.
- 15.3 Failure of the successful Bidder to accept the notification of award or submission of security deposit within the timeframe shall constitute sufficient grounds for the annulment



of the award and forfeiture of the EMD, in which event the Owner may make the award to the next lowest evaluated bidder or call for new bids.

## **16. Earnest Money**

- 16.1 Each bid must be accompanied by E.M.D.
- 16.2 The EMD is required to protect the Owner against risk of Bidder's conduct, which would warrant the security's forfeiture
- a. The EMD shall be in the form of Demand Draft from a nationalized bank drawn in favour of HLL Lifecare Limited, Peroorkada, Thiruvananthapuram payable at Thiruvananthapuram.
  - b. E.M.D. of the unsuccessful bidders will be released after tabulating tenders, keeping only the earnest money of the first three lowest bidders. The earnest money deposit of the remaining two unsuccessful bidders will be released after the acceptance of the notification of award by the successful bidder.
  - c. In the case of successful bidder, the Earnest Money will be returned after signing the agreement and submission of Demand Draft towards Security Deposit, which they will have to offer for the faithful execution of the contract.
- 16.3 The EMD may be forfeited:
- (a) If a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Bid Document; or
  - (b) In case of the successful Bidder, if the Bidder fails:
    - (i) To sign the agreement.
    - (ii) To furnish security deposit.

## **SCHEDULE:- II**

### **GENERAL CONDITIONS OF CONTRACT**

#### **1.0 PROJECT INFORMATION**

##### **1.1 General:**

The detailed information of the project given below is as per our present requirement. However, it is not binding on the Owner in any way and shall not govern the scope of works.

##### **1.2 Location of Site:**

The project site is located at **HLL LIFECARE LIMITED, TRIDA COMPLEX, NEAR MEDICAL COLLEGE HOSPITAL, THIRUVANANTHAPURAM.**

##### **1.3 Price**

Price quoted should be firm without any escalation till the Contract is completely executed and should be for the item/work shown under **SCHEDULE OF QUANTITIES.**

The rates quoted must be firm and include the cost of transportation of material to the site, all taxes such as Sales Tax, Excise duty and Octroi etc. and the fixing or placing in position for which the item of work is intended to be operated. The rates quoted by the Contractor shall be firm throughout the contract period and there shall be no upward revision of the rates quoted by the contractor for any reason whatsoever.

It should be clearly understood that any claims for extra Sales Tax, Excise duty, Construction tax or any additional tax etc. shall not be entertained in any case whatsoever once tenders are opened

##### **1.4 Site Facilities:**

The contractor has to remove all left over, excess, scrap material from the site and restore the site to fully clean condition as and when required. In case he fails to do so, the Owner reserve the right to remove such materials from the site and expenses incurred in this case shall be deducted from the payments due to the contractor. However, no claim for any loss of material in this case shall be acceptable.

### **2 COMMITMENT OF CONTRACTOR**

#### **2.1 Interpretation of Contract documents:**

**2.1.1.** All the documents forming part of the contract are to be taken as mutually explanatory, supplementary and complementary to each other. If there is any error, omission or discrepancy in any of them, it shall be brought to the notice of the Owner. The decision of the Owner shall be final and binding. The contractor shall execute the work accordingly.

**2.1.2** The contractor shall examine all the contract documents thoroughly including the scope, nature and magnitude of works he has to execute in accordance with the contract documents.

**2.1.3.** The contractor shall visit the project site so as to study the site conditions, means of access to the site and other factors governing the works.

**2.1.4.** There may be change in layout of site as per technical requirements and the tenderer shall not be entitled for any claim due to such changes & should carry out such changes.

## **2.2 Delay in work execution due to reasons beyond contractor control**

### **2.2. A Force majeure:**

If the execution of work is delayed due to force majeure, then owner as per the affected period may extend the time period.

**2.2.B** Owners supplied material in case work is delayed due to non-availability of stores supplied by Owner or any decision by Owner holding the progress of work, the contractor then upon any such happening causing delay shall immediately but not later than 10 days, give notice thereof in writing to the Owner, but nevertheless use constantly his best effort to prevent or make good delay. The Owner may in his discretion grant such extension of time as may appear reasonable to him and the same shall be communicated to the contractor in writing and shall be final and binding on him and the contractor shall be bound to complete the work within such extended time.

## **2.3 Period of Completion**

Time is the essence of the contract. Time of completion allowed is **10 WEEKS** from the date of acceptance of **Letter Of Intent/Work Order**.

### **Time Schedule:**

The successful tenderer shall submit the time schedule in the form of charts before commencing the work and shall execute the work strictly as per the schedule submitted by him and approved by the Owner on turnkey basis.

## **2.4 Compensation for delay:**

Time is the essence of the contract. If the contractor fails to complete the work and clear the site on or before the dates fixed for completion, he shall without prejudice be liable to pay liquidation damage (LD) i.e. **0.5 % of the contract value for every week that the whole or the part of work remains incomplete**. For the purpose of this condition, the contract value shall be total value of quantities of items in the contract at contract rates plus algebraic sum of the subsequent work ordered. However, **the total amount of LD to be paid under this condition shall not exceed 7.5% percent of the contract value**.

## **2.5 Default of Contractor:**

If the contractor fails to maintain progress and quality of work proportionate to time period allotted for the work in spite of notices or complete the work within the stipulated time period or extended time period, then the Owner shall have the right:

- i) To determine the contract: In this event, the contract shall be terminated by giving written notice to the contractor and the unfinished works shall be got completed by labours engaged by the Owner or through other agency at the cost of the Contractor.

- ii) Without determining the contract: In this event, the remaining works shall be got executed through a fresh contractor in which case the Contractor shall not have any objection or claim on this account.
- iii) Before determining the contract: In this event, if the Owner finds that the defaults of the Contractor can be rectified, then an opportunity shall be given to the same contractor to rectify the defects /defaults in the specified time.
- iv) Termination of contract for death: If the contractor is an individual of a proprietary firm and proprietor of the firm dies and if the Contractor is a Attorney of partnership firm and dies, then the Owner has the right to terminate the contract unless and until the Owner is satisfied that the surviving partners are capable of executing and completing the remaining contract. In case of termination of contract, the legal representatives of the deceased Contractor are not entitled for any compensation or claim. Also, the Owner shall not levy any penalty against the damage caused by incomplete work.
- v) Termination of Contractor in part or in full for Contractors default: If the Contractor fails to execute the work in the manner described in the contract documents or if he at any time, in the opinion of the Owner:
  - a) Fails to carry out the works in accordance with the contract conditions or as per the specifications mentioned in the documents.
  - b) Stops the execution of works without giving prior information to the Owner.
  - c) Fails to carry out the works to the satisfaction of the Owner both with respect to qualities and time schedule.
  - d) Fails to supply sufficient or suitable construction plant, materials and labours etc.
  - e) Commits breach of any of the provisions of the contract.
  - f) Abandons the work.
  - g) becomes bankrupt during the continuance of the work.

Whenever the Owner shall exercise his authority to cancel the contract under the above condition, the Owner shall be at liberty to hold and retain in their hands materials, tackles, machinery and stores of all kinds on site as they may think proper and may at any time sell any of the materials, tackles, machinery and stores and apply the proceeds of sale in or towards the satisfaction of any loss which may arise from the cancellation of contract as aforesaid. The Owner shall also be at liberty to use materials, tackles, machinery and other stores on the site of contractor as they think proper in completing the work and the Contractor will be allowed the necessary credit. The value of materials and stores and amount of credit to be allowed for tackles and machinery belonging to Contractor and used by Owner in completing the work shall be assessed by the Owner and amount assessed shall be final and binding on the Contractor. In case Owner completes or decides to complete the work under the provisions of this condition, the cost of completion to be taken into account in determining the excess cost to be charged to the Contractor under the condition shall consist of the cost of materials purchased or required to be purchased, labour provided or required to be provided.

## **2.6 Variation in scope of works:**

- a) Variation in quantity:

The Owner has the right to increase or decrease the quantity of work or delete/add certain items of work. However such changes shall not entitle the contractor for any compensation, claim regarding the change in scope of work.

b) Variation in drawings and specifications:

- i) The variation in scope may be by way of changes in drawings regarding dimensions but specification remaining the same. In such a case the contractor shall not be entitled for any claim due to change.
- ii) In case of change of specification it shall be worked out as given in Clause 3.8

### **2.7 Staff and Workers:**

The contractor shall depute qualified engineers for execution of the project. The technical staff employed by the contractor shall be responsible for the quality and workmanship of the work as per the satisfaction of the Owner. The Contractor's supervisory staff should follow the instructions given by the Owner or his authorised representative. If any of the Contractor's staff members is incapable or in-experienced, in the opinion of the Owner, then he should be removed immediately and the contractor should do suitable substitution. Technical staff employed should be degree holder from a government-recognized institution or equivalent with at least 3 years practical experience of work in addition to Diploma holder and other experienced supervisory staff.

If the workers or the supervising staff of the contractor are involved in riotous or illegal activities to such an extent that it becomes necessary to hand over the matter to the police then the contractor would be solely responsible for the case and all the expenses incurred in the legal proceedings shall be borne by the contractor.

### **2.8 Subletting of contract:**

No subletting of contract is permitted. Specialized work agency contracts may be permitted with prior permission.

### **2.9 Co-operation with other agencies at site:**

The Contractor or his authorised representatives must work in close co-operation with the agencies executing other works forming the part of the project and also with the representatives of the Owner for the execution of works which are not included in the contract. Contractor shall permit free access and generally afford reasonable facilities to other agencies or departmental workmen etc.

The Contractor's quoted amount/rate shall be deemed to cater for all the above contingencies and nothing extra shall be admissible on this account.

### **2.10 Contractor should keep his working site clean and the materials brought for work shall be kept in a properly stacked / stored way.**

The work site should be swept at the end of each working day after removal of debris/ left over materials. The Contractor has to take full care so as not to spoil or damage other Contractor's/ Owner's job / material.

### **2.11 Safety of adjoining properties:**

The Contractor or his authorized representatives should conduct all the operations necessary for the execution of works in such a manner that no inconvenience / damages are caused to the properties of other persons & Owner.

## **2.12 Settlement of dispute:**

Any disputes or difference arising between the parties with respect to the performance of any part of this agreement or any thing connected therewith, etc shall as far as possible be mutually settled by the process of dialog and negotiation.

The Courts at Trivandrum alone shall have jurisdiction in respect of settlement of any matter arising out or in connection with the contract.

## **2.13 Escalation:**

The rates quoted by the Contractor in the contract documents shall be final and shall not be subjected to any change due to the increase in labour wages or inflation in the cost of materials or any other price variations due to any reason during the stipulated time period of the contract or during the extended time period of completion.

## **2.14 Insurance:**

The Contractor shall at his own expense carry and maintain insurance with reputed insurance companies to the satisfaction of the Owner as under:

### **i) Insurance of works:**

The Contractor shall take full responsibility for loss, damage and care of plant and works until it is delivered to site, constructed, erected, commissioned and taken over by Owner. Without limiting such responsibility, the contractor shall in the interest of the work insure the plant and work for their full value plus ten percent until they have been taken over. Such insurance shall cover the equipments and works against loss, damage or destruction by fire, earthquake, theft or any other cause, throughout the duration of the contract period or extended contract period.

### **ii) Insurance of employees:**

The Contractor shall accept full and exclusive liability for the compliance of all obligations and responsibilities imposed by the Employees State Insurance Act, 1948 and any liability or penalty which may be imposed by the Central, State or Local Authorities due to the reason of violation by the contractor or sub-contractor of the Employees State Insurance Act, 1948. The Contractor shall agree to fulfill the requirement of the Employees State Insurance Corporation and maintain the declaration forms and all such forms, which may be, required in respect of the contractor's, sub-contractor's employees who are employed in the work provided for or those covered by E.S.I.C. from time to time under the agreement. The Owner shall retain such sum as may be necessary from the total contract value until the contractor shall furnish satisfactory proof that all contributions as required by the Employees State Insurance Act, 1948 have been paid by him.

### **iii) Workmen's Compensation:**

Insurance shall be affected for all the Contractor's employees engaged for this contract. The Contractor shall also carry and maintain all other insurance, which may be required under any law or regulations from time to time. He should also carry and maintain any other insurance, which may be required by the Owner.

### **iv) Transit Insurance:**

The cost of transit insurance relating to the items to be transported by the contractor to the site of work shall be borne by the contractor and the quoted price shall be inclusive of this cost.

**v) Loss or damage and Indemnity Agreement:**

The contractor shall be responsible during the progress of work as well as maintenance period for any liability imposed by law for any damage to work or any part thereof or to any of the material or other things including those of Owner used in performing the work or for injury to any person or persons or for any property damaged in or outside the site. The contractor shall indemnify and hold the Owner and the Engineer harmless against all liabilities, claims, loss or injury, including costs, expenses and attorney's fees incurred in the defense of same, arising from any allegation whether groundless or not, of damage or injury to any person or property resulting from the performance of the work or from any material used in the work or from any condition of the work or work site or from any cause whatsoever during the progress and maintenance of the work.

**vi) Third party insurance:**

Before commencing the execution of the works the Contractor, but without limiting his obligations and responsibilities, shall insure against his liability for any material or physical damage, loss or injury which may occur to any property, including that of the Owner, or to any person, including any representative of the Owner, by or arising out of the execution of works or in the work being carried out by the owner, by or arising out of the provision of clause 2.14.v here of. Such insurance shall be affected with an insurer and in terms approved by the Owner and for at least the amount stated in the Appendix of the Tender.

vii) The Contractor shall take **Contractor's All Risks Insurance (CAR)** policy, jointly in the name of HLL LIFECARE LIMITED and the Contractor and the insurance should be valid till the satisfactory completion of the work. The copy of the policy shall be deposited with HLL before commencing the work.

**Note:** The Contractor's payment shall be clear only after his compliance of all insurance formalities as given above. He shall have to deposit the photocopies of the various policies and payment receipts with the Owner's site engineer for this purpose.

**3.0 EXECUTION OF WORK**

**3.1 General:**

All the works shall be executed in accordance with the detailed drawings, specifications and instructions given by the Owner or mentioned in the contract document.

**3.2 Drawings:**

The drawings given in the tender document are as per our present requirement and are meant for the purpose of giving idea of the type and quantum of work to be executed.

All working drawings shall be marked "Released for Execution" and duly signed and approved by the Owner. All the old drawings shall be discarded and marked with "Superseded by Drg. No....."

If during the execution of the work, any discrepancy occurs in the drawings or between the drawings and specification then the same should be clarified from the Owner prior to the execution of work. The decision given by the Owner would be final.

**3.3 Inspection of works:**

i) The Owner shall have the full authority to inspect the works at any time, at any stage. The contractor shall provide adequate facilities to carry the inspection work. The Contractor should present himself or his authorised representative during the inspection so that the Owner can convey the instruction regarding the works.

- ii) The Contractor shall give information to the Engineer in charge before covering up the works so that the same can be inspected and measured jointly & correctly to true dimensions.
- iii) If the contractor fails to get the work inspected before covering it up, then the Owner has full authority to get the work uncovered at the expense of the Contractor and if any fault is found then the same should be rectified by the Contractor without claiming any extra payment.

#### **3.4 Inadequate/substandard works and materials:**

- i) If any material brought by the Contractor is found unsuitable or of sub-standard quality after testing, then the Contractor shall remove those faulty materials immediately from the site as per the instructions of the Owner.
- ii) If any work executed by the Contractor is found to be of bad workmanship or not as per the drawings, then the same is to be dismantled and re-executed by the Contractor without claiming any extra payment or extension in time period.

#### **3.5 Default of Contractor in compliance:**

If the contractor or his authorised representative fails to follow the instructions given by the Owner regarding any of the works, then the same shall be got executed by other persons employed by the Owner and the expenses incurred shall be borne by the Contractor.

#### **3.6 Discrepancies between instructions:**

If any discrepancy occurs between the various instructions conveyed to Contractor or his authorised representative or if any misunderstanding arises between the Contractor's staff and Owner's staff, the contractor shall report the matter immediately to the Owner. The decisions of Owner shall be final and binding. Moreover, no claims for losses due to discrepancies between instructions, doubts or misunderstandings shall be admissible.

#### **3.7 Power to make alterations**

The Owner shall have the power to make in writing any alterations, omissions, additions or substitutions for original specifications, drawings, designs, patterns and instructions that may appear to him necessary or advisable during the progress of the work and the contractor shall be bound to carry out the work in accordance with the instructions which may be given to him by the Owner or his representative. On submission of electrical scheme to the Electrical Inspectorate it is bound to have some changes in the panels, cables rating etc.

Such alterations, omissions, additions, substitutions shall not invalidate the contract. Any altered additional or substituted work which the contractor may be required to do in the manner specified above as part of the work shall be carried out by the contractor on the same conditions in all respect on which the main works was agreed to be done and at the rates derived according to clause 3.8.

#### **3.8 Change in specifications and valuation of extra items:**

Extra items may be classified as additional, substituted, or altered items, depending on their relation or otherwise to the original item or items of work.

Rates for authorities extra items, additional, altered or substituted work as may be ordered shall be determined by the "Owner" as follows:



- a. In the case of all extra items whether additional, altered or substituted, if accepted rates for identical items provided for in the contract, such rates shall be applicable.
- b. In the case of all extra items whether altered or substituted, for which similar items exist in the contract, the rates shall be derived from the original item by appropriate adjustment of cost of affected components. The percentage excess or deduction of the contract rate for the original item with reference to the estimated rate shall be applied in deriving the rates for such items.
- c. In the case of extra items, whether altered or substituted, for which similar items do not exist in the contract, the rates shall be arrived at on the basis of provision of standard data Book and schedule of rates 2013 of CPWD by adding profit of 15% and applying the contractor's quoted percentage above or below.
- d. In the case of extra items, whether additional altered or substituted, for which the rates cannot be derived from similar items in the contract, and only partly from similar items in the contract, and only partly from the CPWD rates, the rates for such part of parts of items as are not covered in the schedule of rates shall be determined by the Owner on the basis of the prevailing market rates giving due consideration to the analysis of the rate furnished by the Contractor with supporting documents, including contractor's profit. This shall be added on to the C.P.W.D rate revised as on 2013 (including contractor's profit). For the other part of the items the rates can be derived from the recent schedule of rates of C.P.W.D.
- e. In the case of extra item whether additional, altered, substituted, for which the rates cannot be derived either from similar item of work in the contract or from the departmental schedule of rates, the contractor shall within 14 days of the receipt of order to carry out the said extra item of work, communicate to the Owner the rate which he proposes to claim for the item, supported by analysis of the rate claimed and the Owner shall within one month thereafter, determine the rate on the basis or the market rate giving due consideration to the rate claimed by the contractor.
- f. The quantities indicated are approximate. On award of work and approval of the scheme, the contractor has to work out the actual quantities of each item of work and intimate to the Owner. No increase in cost shall be given for any additional quantities of any item given in the tender.

### **3.9 Work not specified in the specification:**

If, for any work, no specification has been given in the tender document, then the work will be executed as per the IS specifications, and if the work is not covered by IS specifications also, then it should be executed as per standard engineering practice, subject to the recommendation and approval of the Owner.

### **3.10 Testing:**

The Contractor shall agree for testing works as mentioned in the specifications of various items of works involved in the project.

- i) If the various tests prescribed in the specifications at specified intervals for ascertaining the quality of the work done prove unsatisfactory, the Owner shall have the authority to instruct the Contractor to re-execute the work done or make alterations as per the orders of the Owner.

- ii) The Contractor shall furnish to the Owner, for approval adequate samples of all materials to be used in the works free of cost. Such samples shall be submitted before the work is commenced, giving ample time to ascertain ISI approval/marketing.  
All materials furnished in actual works shall be of the same quality of that of approved samples.
- iii) The testing of various equipments to be used in works shall be tested in standard laboratories as directed by the Owner and the expenses incurred shall be borne by the Contractor.

### **3.11 Progress Report:**

During execution of the contract, the contractor shall furnish weekly progress reports to the Owner and in the format as specified by the Owner indicating the progress achieved during the week and the total progress up to the week as against scheduled and anticipated completion dates in respect of key phases of the work. The Contractor shall also furnish any other information in order to ascertain progress, if called for by the Owner.

### **3.12 Liabilities for defects and rectifications:**

If it shall appear to the Owner that any work has been executed with imperfect or unskilled workman or with materials of any inferior description, or of quality inferior to that contracted for, or otherwise not in accordance with the contract, the Contractor shall on demand in writing from the Owner or his representative specifying the work, materials or articles complained of, notwithstanding that the same may have been inadvertently passed, certified and paid for, forthwith rectify or remove and reconstruct that work so specified and provide other proper and suitable materials or articles at his own charges and cost, and in the event of failure to do so within a period to be specified by the Owner or his demand aforesaid, the Owner may on expiry of notice period rectify or remove, re-execute the work at the risk of Contractor and the cost shall be recovered from the Contractor. The decision of the Owner as to any question arising under this clause shall be final and conclusive.

### **3.13 Defect liability Period:**

The liability period of the work shall be 12 months from the date of completion of the work as certified by the Owner and this date will be as indicated in the provisional completion certificate. If any damage or defect occurs in the work during this period then the contractor shall rectify the damage or defect at his own expense to the satisfaction of the Owner .If the contractor fails to do so, then the Owner shall have the authority to get the work done by other means and the expenditure incurred shall be recovered from the contractor.

### **3.14 Suspension of work:**

The Contractor shall suspend the progress of work, on receipt of the written order from the Owner for any of the following reasons:

- i) On account of any default on the part of the Contractor. In this case the contractor shall be entitled for the extension of time, but the contractor shall have no claim for payment of compensation for re-execution of faulty works.
- ii) For execution of the works for reasons other than the default of the contractor.
- iii) For safety of the works.

**In case of suspension of work:**

- a) The contractor shall during such suspension, properly protect and secure the works and carry out the instructions of the owner.
- b) If the suspension is ordered for the reasons 3.13 as stated above, the Contractor shall be entitled for extension of time equal to the period of every such suspension but no compensation for damages etc. shall be admissible on account of suspension of work.

**3.15 Possession prior to completion:**

The Owner shall have authority to take possession of any completed or partially completed works. Such possession shall not be deemed to be acceptance of any work completed in accordance with the contract. If such prior possession delays the progress of works then the adjustment in the time of completion shall be done accordingly. The decision of the Owner regarding the extent of delay shall be final and binding.

**3.16 Care of Works:**

From the commencement to the completion of works, the Contractor shall take full responsibility for the care of all works including all temporary works and in case any damage or loss occurs then the contractor shall at his own cost repair and make good the same so that on completion of the work, the same shall be in good order in every respect in accordance with the contract and to the satisfaction of the Owner.

**4.0 CERTIFICATE AND PAYMENT****4.1 Schedule of Rates:**

- i) The payments to be made to the contractor for various items of works shall be as per the finalised rates in tender document and the rates of extra items finalised from time to time.
- ii) The rates finalised in the tender document shall remain firm till the completion of the work including extension of time, if any.
- iii) After the completion of work, the Contractor will have to submit the clearance certificate for all statutory payments like royalties, Octroi etc.

**4.2 Measurement:**

Joint measurements of the various items of the work shall be taken by the Contractor's authorised representative in presence of the Owner's and authorized representative from time to time for maintaining the records and preparing the bills. If the contractor fails to send his representative then the measurements taken by the Owner's and shall be final and no claim shall be entertained in this regard.

**4.3 Mode of Measurement:**

All measurements shall be in the metric system and in accordance with Indian Standard Specifications and in accordance with standard engineering practice. If the contractor has any objection regarding the measurements then he shall inform the Owner immediately. The decision given by the owner shall be final and binding on the contractor. In case of mode of measurement of any item is not specified; then I.S.I. mode of measurement (as applicable during contract period) shall be followed.

**4.4 Mobilization Advance:**

No mobilization advance shall be paid.

**4.5 Lump sums in Tender:**

Lump sum items considered only where specified.

**4.6 Running Account Payments to be regarded as advances:**

All running account payments shall be regarded as payments by way of advances against the final payment only and not as payment for work actually done and completed, and shall not preclude the requiring of bad, unsound and imperfect or unskilled work to be removed and taken away and reconstructed or re-erected or be considered as an admission of the performance of the contract or nor shall it conclude, determine or affect in any way the powers of the Owner under these conditions or any of them as to the final settlement of the accounts or otherwise, or in any other way vitiate or affect the contract. The final bill shall be submitted by the contractor within one month from the date of actual completion of the work, to the Owner's certificate of the measurement and of the total amount payable for the work accordingly shall be final and binding on the Contractor. The payment of final bill shall be done within three months after the submission of the final bill by the contractor, to the including period of one month of clause no.4.8 (c) billing and terms of payment.

**4.7 Payment of Contractor's Bills:**

- a. The payment due to the contractor shall be made only in Indian Currency by Crossed Account Payee Cheques. In no case, will the Owner be responsible if the cheque is misled or mis-appropriated by the contractor or his representatives. The cheque shall be released only against submission of duly signed and revenue stamped receipt.
- b. The Owner reserves the right to carry out post payment audit and technical examination of the bills and work executed including all supporting vouchers etc. The Owner further reserves the right to enforce recovery of over-payment when detected. Similarly, if any under payment is discovered, the amount shall be paid to the contractor.
- c. Wherever any claim for the payment against the contractor arises as per the contract, the same may be deducted from the bill of the contractor or from his security deposit.

**4.8 Billing and terms of payment:**

(a) The payment shall be made as under:-

- i) 70% of the value of goods supplied at site shall be made immediately after supply of materials/work executed at site.
- ii) 20% of the value of goods supplied/ work executed at site shall be made immediately after completing and commissioning the equipments/work executed.
- iii) Balance 10% after rectification of defects, energizing the complete system to the full satisfaction of Owner.

(b) The amount deposited as Security Deposit shall be released only after issuance of provisional completion certificate by the Owner.

c) Retention Amount: Retention Money at the rate of 5% of the value of work done for each running bill will be deducted. The retention money shall be returned at the expiration of defect liability period of 12 months.

- (d) Tax Deduction: All statutory deductions like Income Tax, Works Contract Tax, E.S.I., P.F. or any other government imposed liabilities shall be borne by the contractor (as applicable at the time of execution of job) and shall be deducted from each bill submitted by the Contractor.

### **5. Provisional Completion Certificate:**

When the Contractor successfully completes the works as per the contract, he shall be eligible to apply for provisional completion certificate in respect of the works. The Owner shall issue to the Contractor the provisional completion certificate after verifying from the completion documents submitted by the Contractor and satisfying himself that the work has been completed in accordance with the construction drawings and the contract document. The Contractor, after obtaining the provisional completion certificate, is eligible to present the final bill for the work executed by him under the terms of the contract. The work will not be considered as complete and taken over by the Owner until all the temporary works, labour hutments etc. are removed and the work site cleared to the satisfaction of the Owner.

If the contractor fails to comply with the requirements of the above on or before the date for the completion of the works, the Owner may, at the expense of the contractor, remove the tools and plants and surplus materials and dispose off the same and the contractor shall pay the amount of all expenses incurred.

## **6.0 LABOUR LAWS AND SAFETY REGULATIONS**

### **6.1 Labour Laws:**

- i) Laborers below the age of 18 years shall not be employed on the work.
- ii) The contractor shall not pay less than what is specified by the law to laborers engaged by him on the work.
- iii) The contractor shall, at his own expenses, comply with all labour laws and the Owner shall not be responsible for any recovery/penalty imposed by the respective authorities for violating the labour laws.
- iv) If the contractor is covered under the Contract Labour (Regulation & Abolition) Act, he shall obtain a license from the licensing authority (i.e. the Office of Labour Commissioner), by payment of the necessary prescribed fee and deposit, if any, before starting the work.
- v) The contractor shall furnish to the Owner, the details of the workers employed on the works.
- vi) The contractor shall comply with the provisions of the existing rules and regulations relating to labour laws.
- vii) The Owner /authorized engineer shall on a report having been made by an inspecting officer as defined in Contract Labour (Regulation and Abolition) Act, 1980, have the power to deduct from the amount due to the contractor any sum required or estimated to be required for making good the losses suffered by a worker or workers by reason of non-fulfillment of the conditions of the contract for the benefit of the workers, or if deductions made from his or their wages which are not justified by the terms of contract or non-observance of the said regulations.

## **6.2 Minor Accident on Duty:**

For cases of minor accident on duty not covered under compensation by insurance, the contractor shall have to compensate the affected person by reimbursing these medical expenses against submission of actual expenditure document. The absence from duty, if takes place due to such accident, shall be considered as special leave and full payment shall have to be made for duration of such absence.

## **6.3 Provident Fund:**

It shall be solely the Contractor's responsibility to complete all provident fund formalities as per statutory regulations.

## **7.0 SAFETY CODE**

### **7.1 Safety and Protection:**

The contractor shall adhere to safe construction practice and guard against hazardous and unsafe working conditions. While carrying out the work, the contractor should provide for;

- i) Safety of personnel engaged in the construction.
- ii) Protection and safety of works and materials during their progress.
- iii) Sanitary and hygienic conditions of working and living for his workers, as required by the Owner.

### **7.2 Use of Safety Gadgets:**

The Contractor shall have to ensure availability and use of all desire safety gadgets like safety belts, helmets, goggles, hand gloves etc.

### **7.3 Unsafe working condition:**

If any activity is found to be progressing without proper and complete safety measures (including use of safety gadgets) being implemented, the contractor may be asked to stop the work unless he fulfills the desired safety norms. Such delays shall not be allowed to be considered for extension in duration of the allotted time period.

### **7.4 First Aid:**

The contractor shall provide first aid facilities for his employees and those of his sub-contractors. The requisite first aid box and medicines should always be available at work site.

### **7.5 Contractor's Barricades:**

The contractor shall erect and maintain barricades required in connection with his operations to guard or protect:-

- i) Excavations
- ii) Hoisting Areas
- iii) Areas adjudged hazardous by the Contractor's or Owners representatives.

- iv) Charged electrical panels.
- v) Owner's existing property liable to get damaged by contractor's operation.

#### **7.6 Preservation of peace:**

The contractor shall take precautions to prevent any riotous or unlawful behavior by his workers, for the preservation of peace and protection of inhabitants and the security of property in the neighborhood of the work.

#### **8.0 DETAILS OF WORK EXECUTION**

- i) The work shall be done in such a manner so as to clear work front availability for other agencies working at site.
- ii) Finish of work shall be as per drawings & details given by Owner.
- iii) In general the complete work is to be done as per Indian Standard and esthetical norms as specified and detailed in Tender.

#### **9.0 CONTRACTOR'S SCOPE OF SUPPLY**

All materials required for executing the jobs specified in the Schedule of Items, inclusive of all tools, tackles, scaffolding, consumables & testing equipments shall be procured and supplied by the contractor at his own cost except for any items specified as owner supplied.

#### **10.0 RECOVERY FROM THE CONTRACTOR**

- i) If the contractor or his employees damage or destroy the property of the Owner, then the same shall be replaced/ refunded by the contractor; otherwise the expenses may be recovered from his bill or security deposit.
- ii) All compensation & recoveries to be made as per terms of the contract shall be deducted from the contractor's bill or security deposit.
- iii) Forfeiture of Security Deposit: Whenever any claim against the contractor is to be recovered then the same may be made from the security deposit. If the contractor abandons the work or leaves the work incomplete, then the Owner/has the right to forfeit the security deposit.

#### **11.0 SPECIAL INSTRUCTIONS**

- a) All materials to be used in execution of project shall be of **first class quality, recommended make; I.S.I. marked and shall be approved by Owner** before its application.
- b) The contractor shall be paying all testing charges required for testing of materials and samples as and when taken by Owner/ The Contractor shall arrange necessary labour and transportation to facilitate testing of samples/materials. Frequency of testing materials/samples shall be as per related I.S. codes.
- c) The work should be carried out in truly professional manner, neatly finished with proper line, level and plumb. Cleanliness and finishing of the job is of utmost importance. Hence the job should be done most carefully with best workmanship. For all

finishing jobs samples should be approved from the owner before completely executing the work.

- d) The Owner/ should be immediately informed for any discrepancy in drawings, specifications and instructions in the execution of job at site before actual execution of particular item having discrepancy.
- e) Any item found to be having been executed with poor workmanship or materials of inferior quality then the contractor shall have to rectify /reconstruct the work as specified by Owner/ No extra charge will be admissible in such case. If Contractors fails to do so, the Owner reserved the right to rectify/reconstruct the work through some other agency at the expenses of contractor.
- f) The schedule of activities as submitted by the contractor shall have to be strictly adhered to. Regular progress reports shall have to be submitted by the contractor giving all details for monitoring of the schedule.
- g) The Contractor shall take charge of site and if site clearance is involved, he shall attend to it. (If such type of unforeseen and unavoidable situation occurs, in that case actual labour employed for such job shall be paid including overheads and profit).
- h) Special care is to be taken for cleanliness of the site. After the end of day's work, the site should be cleaned immediately.
- i) The contractor shall have to co-operate with the agencies executing other works in the same area.
- j) While executing the work, the contractor shall ensure safety and security of the property of the Owner so as to avoid theft etc.



## 12. STAMP PAPER AGREEMENT

AN AGREEMENT made this the \_\_\_\_\_ day of \_\_\_\_\_ 2015 between M/S \_\_\_\_\_ here in after called the CONTRACTOR/S which expression shall include its executors, administrators, legal representative and assigns of the first part and **M/S. HLL LIFECARE LIMITED.** (Hereinafter called the Owner) of the second part. WHEREAS **M/S. HLL LIFECARE LIMITED.** the Owner is desirous of doing “**Supply, Installation, Testing and Commissioning of HT Electrification work of HLL Diagnostic & Polyclinic Facility at TRIDA Complex, Near Medical College Hospital, Thiruvananthapuram** “ as per Drawings & specification and the contractor/s has/have by his/their tender dated \_\_\_\_\_ as amended by the contractor's -contractor's letter no. \_\_\_\_\_ dated \_\_\_\_\_ offered to execute and fully complete the above work in the Owner's Premises for the Owner as set forth in the tender or as amended and the schedule Bill quantities particular specifications, ISI specification, drawings, special conditions of the contract, scope & performance schedule and general conditions of the contract, according to the terms and conditions contained there in for an approximate total sum of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_) and the Owner has accepted such item rate/percentage rate/Lump sum tender in terms of its letter no. /dtd. \_\_\_\_\_.

Owner/Employer

\_\_\_\_\_  
SIG.OF THE CONTRACTOR

## NOW THIS AGREEMENT WITNESSETH AS FOLLOWS

1. The contractor/s covenant/s and agree/s with the Owner that the contractor/s with in the time of TEN WEEKS from the date stipulated in the acceptance letter shall execute and fully complete all the works specified described or referred to in and by the said tender or as amended according to the true intent and meaning of the said tender or as amended and as per the Schedule Bill of quantities Particular Specifications ISI Specification Drawings & Instructions issued from time to time Special Conditions of the Contract Scope & Performance Schedule General Conditions of the Contract.

The Contractor/s covenant/s and agree/s with the Owner to truly observe perform fulfill & submit to the said terms obligations and conditions referred above. Incase the contractor fails to execute the work in the manner described in the condition of Contract or stops the execution of work or fails to carry out the works to the satisfaction of the Owner with respect to quantity quality and time schedule or abandons the work or becomes bankrupt then the Owner will have right to terminate the contract and get the remaining work executed at the risk and cost of the contractor. It is agreed that time is of the essence of this contract. Incase the work is not completed in the manner mentioned above to the complete satisfaction of the Owner in every respect within the aforesaid time limit of four months from the date stipulated in the Work Order the Contractor/s agree/s to pay compensation of ½% of the value of the contract sum for each week of delay beyond the date stipulated for completion subject however to a maximum of 7.5% of the value of the Contract sum.

2. In consideration of the satisfactory work executed by the contractor/s with the provisions as stated above the Owner covenant/s with the contractor/s that it will pay to the contractor/s from time to time in accordance with the Schedule Bill of quantities and various terms and conditions as contained in General Conditions of the contract and Special Conditions of the contract, provided always that whether or not a work is satisfactory shall be decided by the Owner and its decision in this behalf shall be final and binding.
3. The rates for items whether termed as extra items or deviations or by whatever name called and which are not covered by the tendered rates will be worked out in accordance with Clause 3.8 of Schedule II the General Conditions of the contract only.
4. Sales Tax by whatever name and in whatever from it may be in all cases shall be the contractor's /Contractors' responsibility. Income Tax Work Contract Tax & Taxes in pursuance of U.T. Sales Tax amendment and validation ordinances and or the Act thereof and or other amendments as may be made from time to time or taxes as result of subsequent orders/ordinances/acts as issued by the State or Central Govt. from time to time shall be borne by the Contractor/s.
5. The contractor shall abide by and shall be responsible for all statutory provisions of the Law such as labour laws & safety regulations etc.
6. This agreement further witnesseth that the contractor/s hereby covenant/s with the Owner that in the event of the nonfulfilment in any respect by the contractor/s of the said covenant/s terms, agreements, obligations and conditions on the part of the contractor/s, the contractor shall pay on demand to the Owner all losses, damages, costs, charges and expenses as the Owner may be directly or indirectly put to in consequence of such non fulfillment of contract by the contractor/s.

7. In the event of any dispute arising out of or in connection with the arbitration proceedings, or any proceedings being taken subsequent to the arbitration proceedings, it is further agreed that only the courts in Thiruvananthapuram, Kerala shall have the sole jurisdiction in the matter.
8. The following documents are deemed to form part of the agreement, namely the tender, the priced bill of quantities, the drawings issued for the work, Schedule 'II' Particular Specifications, Special Conditions of the Contract and General Scope performance Schedule Conditions of the contract, all of which for the purpose of identification have been signed on behalf of the Owner and by the contractor/s. The relevant ISI will also form part of this agreement. The letter of Acceptance and their amendment etc. shall also form part of the agreement.
9. The agreement further witnesseth that the contractors is are responsible for any accident or other compensations payable to the workmen employed by and working under the control of contractors, that the Owner has no liability in the matter and that if any payment would have to be made by the Owner, the same shall be reimbursed by the contractors on demand and/ or recovered from the dues of the contractors. In witnesses whereof the said parties here to have here unto set their hands.

**FOR & ON BEHALF OF HLL LIFECARE LIMITED,**

OWNER/EMPLOYER

SIGN.OF THE CONTRACTOR

Date:

Witnesses:

1. \_\_\_\_\_

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

Witnesses:

1. \_\_\_\_\_

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

## **SCHEDULE –III**

### **PARTICULAR SPECIFICATION**

#### **4.1 SCOPE:-**

The scope of work covers supply, installation, testing and commissioning of Electrical works including electrical panels, cabling and wiring as indicated in the schedule and earthing as per standard. All necessary clearance shall be obtained from the concerned authorities.

#### **4.2 ITEM OF SUPPLY AND WORK OF OWNER:-**

Unless/otherwise specified the following supply shall be made and the following works shall be done by the Owner.

1. Open areas for storage of materials for construction work etc.
2. Water and Electricity for construction purpose only

All other items shall be included in the offer made.

#### **4.3 GENERAL**

Work shall be carried out in accordance with specification local rules and relevant Indian Standard.

#### **4.4 TESTING**

Cables shall be tested upto installation with a Megger and the following readings established.

1. Continuity on all phases
2. Insulation resistance.
  - a. between conductors
  - b. all conductors and ground

All the Tests shall be recorded

#### **4.5 MODE OF MEASUREMENT**

Cables will be measured on the basis of unit length and shall include the following:-

- i) Cables and clamps
- ii) Installation, commissioning and testing.
- iii) Cable route marker.

The item shall include the following:-

- i) Cable glands, lugs, bolts, nuts.
- i) All jointing materials
- ii) Installations, testing and commissioning.
- iii) Earthing the gland.

Cables buried under ground will be measured on the basis of unit length and paid for at unit rates.

## 4.6 LT SWITCH BOARD

### 4.6.1 PARTICULARS OF THE SYSTEM

i.	Operating Voltage (Nominal)	:	415Volts
ii.	Frequency	:	50 Hz
iii.	Phases	:	3
iv.	No. of wires	:	4
v.	Neutral	:	Solidly earthed

### 4.6.2 SERVICE CONDITION

Standard service conditions as per Appendix `A' of IS: 2516 (part I section 1965)

### 4.6.3 CONSTRUCTION

The LT switchgear shall be sheet steel clad totally enclosed dust tight/vermin proof, weather proof, indoor, free standing floor mounting and cubicle construction. The busbar chamber shall be extensible on both sides. The type of enclosure shall atleast provide degree of protection covered by IP:53 (weather proof enclosure) of IS:2147-1962. The busbar shall be air insulated Aluminum conductor of suitable size for rated current. The current rating shall not be more than 0.8A/sq.mm.Suitable PVC shrouding with colour coding shall be provided over the busbar. The busbars shall be mounted on SMC supports only. The complete chamber shall be degreased, acid cleaned, washed, phosphated and painted with one coat of zinc chromate primer and 2 coats of enamel paint of gray colour or the complete panel shall be powder coated.—This shall be done in the presence of a representative of the owner. The construction details of the LT panel shall be submitted and got approved by the Owner before fabrication. The installation charges shall include the cost of supply, fabrication and installation of all the necessary steel supports for the erection of the panel.

#### 4.6.3.1 TEMPERATURE RISE

Rise in temperature of following parts of LT switchgear under normal current shall be limited to values as under, taking 40 degree centigrade as reference ambient temperature.

1. Contact parts : 45 degree centigrade
2. Terminals for external insulated connection: 50degree centigrade
3. Manual operation means
  - a. Parts of metal : 15degree centigrade
  - b. Part insulated : 25degree centigrade

#### 4.7.3.2 BUSBARS

##### RATING OF BUSBARS

i.	No. of busbars	:	3 phase and 1 neutral
ii.	Insulation voltage	:	1.1KV
iii.	Normal current	:	as specified
iv.	Short circuit current	:	as specified

Busbars shall be air insulated aluminium conductor enclosed in a sheet steel chamber. Busbars arrangement shall comply with IS:375-1963. Marking and arrangement of Busbars of main connection shall be as per IS: specifications. Letter code and number code as per IS: specification shall be followed for auxiliary wiring. Section of busbars shall be suitable for rated current and corrected for an ambient temperature of 45degree centigrade. Neutral busbar shall be insulated and provision for its connections shall be given. The complete busbar shall be provided with PVC heat shrink insulation of the colour specification.

#### **4.7.3.3 METERING**

Current transformer operated ammeters shall be provided with each of the incoming feeders, to indicate current in each of the phases. Current transformers shall comply with IS:2705 (Part II) – 1964 and shall be of accuracy class as specified . Ammeter shall be Digital type and shall have a dial size of 96\*96mm in square. It shall comply with IS: 1248 – 1968.

The voltmeter shall be Digital type and class 2.5 accuracy and shall comply with IS;1248-1968.

#### **4.7.3.4 INDICATING LAMPS**

LED type Phase indication lamps shall be provided. All the indication lamps shall be of LED type.

#### **4.7.3.5 CABLE TERMINATION**

Switchboard shall be provided with necessary cable end box and compression glands for connecting 1.1KV grade XLPE insulated PVC sheathed armoured aluminium conductor outgoing cables as indicated in the drawing.

The incoming switchgear shall be provided with necessary cable end box and compression glands for connecting 1.1KV grade, XLPE insulated, PVC sheathed armoured aluminium/Copper conductor cables.

#### **4.7.3.6 LABELING**

##### **4.7.3.6.1 General**

Every switchboard, incoming feeder, outgoing feeder, incoming and outgoing cables, switchboard control contactor, time switch, relay, indicator lamp, meter, link and any control or protection equipment within or on a switchboard shall be clearly and accurately labeled.

Labels shall be engraved laminated plastic or photo anodized rigid aluminium and shall comply with the following requirements.

Except where otherwise required, labels shall be fixed adjacent to, but not on any item of equipment.

Engraved lettering shall be black on a white background, except that the label for a main switch shall have red lettering on a white background, and warning and caution labels shall have white lettering on a red background.

The minimum height of lettering shall be 3mm and of sufficient definition to allow easy reading.

#### 4.7.3.6.2 Fixing of Labels

Labels shall be securely fixed by:

- a) Screws and adhesive, or
- b) Fixed in an extruded aluminium section which shall be countersunk screw fixed or countersunk riveted to the panel.

Screws shall be tightened with nuts or into tapped holes in the switchboard. Mechanically expanded plastic rivets of minimum 6mm head diameter are acceptable instead of screws. Aluminium rivets may be used to fix aluminium labels only. Self-tapping screws, thread-cutting screws or other fixings are not acceptable.

#### 4.7.3.6.3 Labels on Exterior of Switchboards and Schedules

All switchboards shall be labeled with the manufacturer's name.

A switchboard designation label shall be provided. For other than main switchboards, the designation label shall also state the source of electrical supply. Separate sections of enclosures shall be identified. The label for any section or enclosure containing supply authority equipment shall be to the satisfaction of the Owner and the supply authority.

Every switchboard control shall be labeled and shall include:

- a. Circuit designation for all main switches, main controls and sub main controls.
- b. Details of the consumer's mains and all sub mains.
- c. Incoming busbar or cable rating to the first tee –off.

The minimum height of lettering shall be 6mm. For identification of final sub circuits, a typed schedule, cross-referenced to the lighting and power layout plans shall be provided. The schedule shall be protected by a plastic sheet and fixed in a suitable frame mounted on the inside of the relevant switchboard door or, if the switchboard has no door, on the wall immediately adjacent to the switchboard.

#### 4.7.3.6.4 ACB/MOULDED CASE CIRCUIT BREAKER

The ACB/MCCBs shall have quick make, quick break and trip mechanism with breaking capacities and thermal settings as specified in the schedule. The terminal shall be suitable for both aluminium and copper termination. The rotary operating handle shall have door interlock facility. The MCCBs shall have a breaking capacity of not less than 18KA r.m.s at 415V. Wherever required higher rupturing capacity breakers to meet the system short circuit fault shall be used. All such rating shall be as per equipment schedule. Relation between Ics & Icu shall be as per table I of IS-13947-2.

### 4.7 LT CABLE 1.1 kV GRADE/PVC/XLPE CABLE

#### 4.7.1 SCOPE

This specification covers the requirements of 3.5/4 core XLPE insulated PVC sheathed L.T 1.1 KV grade aluminium conductor armoured cable generally conforming to IS 1554 (part 1)1976/ IS 7098.

#### **4.7.2 PARTICULARS OF SYSTEM**

i Operating voltage	415 v rms line to line
ii Frequency	50c/s
iii Phase	Three
iv No.of wires	Four
v Neutral	Earthed

#### **4.7.3 PARTICULARS OF CABLE REQUIRED**

1. IS: 7098	XLPE insulated Electric Cables
2. IS: 1753	Aluminium conductors for insulated cables.
3. IS: 3961	Recommended current rating for cables.

#### **4.7.4 CONSTRUCTION**

The cable shall be manufactured as per standard practice and conforming to IS 1554 (Part I) 1976/ IS 7098.

#### **4.7.5 TESTING**

##### **a. Type and routine tests**

Records of all type/routine tests carried out as per Clause 15.1 &15.3 of IS 1554 (part I) 1976 shall be maintained by the supplier and shall be furnished to the authority at the time of inspection by Owner's authorised representative on or before the delivery of materials at site.

##### **b Acceptance tests**

All tests specified in IS 1554 Part 1 1964 (as amended up to date shall be applicable). Test certificate from the manufacturer to be produced for cables.

#### **4.7.6 MANUFACTURER'S IDENTIFICATION**

The manufacturer shall be identified throughout the length of the cable by means of a tape bearing the manufacturer's name or trade mark being printed or intended or embossed on the cable. The identification or embossing shall be done only on the sheath.

#### **4.7.7 PACKING AND MARKING**

The cable shall be wound on a drum of suitable size and packed and marked. The cable may also be marked with ISI certificate mark. The marking done on the drum shall have the following information:-

- a Trade name, if any
- b Name of Manufacturer
- c Year of Manufacturing
- d Nominal sectional area of the conductor of the cable
- e Number of cores
- f Type of cable and voltage for which it is suitable
- g Length of cable on the drum
- h Approximate gross weight



#### **4.7.8 INSTALLATION**

Cable shall be laid in the routes marked in the drawings. Where the cable route is not marked the contractor shall mark it out on the drawings and also on the site and obtain the approval of the Owner before laying of the cable. Procurement of cable shall be on the basis of actual site measurement and the quantities shown on the schedule of work shall be regarded as a guide. Cable rising indoors shall be laid on walls, ceiling, inside shafts or trenches. Single cables laid shall be fixed directly to walls or ceiling. All supports shall be at not more than 500mm. Where number of cables are run necessary perforated cable trays shall be provided wherever shown. Cables laid in built up trenches shall be on steel supports. Plastic identification tags shall be provided at every 20mtr.

Cables shall be bent to a radius not less than 12 times the overall diameter of the cables or in accordance with the manufacturer's recommendation whichever is higher. In case of direct buried cable the cable route shall be parallel or perpendicular to roadways, wall etc. Cables shall be laid in an excavated graded trench over sand cushion to provide protection against abrasion. Width of excavated trenches shall be as required. The cable route shall be provided with cable route marker at every 20mtr.

#### **4.7.9 TESTING**

M V cables shall be tested upon installation with a 500V megger and the following readings established.

1. Continuity on all phases
  - a. between conductors
  - b. all conductors and ground
2. Insulation resistance

#### **4.7.10 MODE OF MEASUREMENT**

Cable will be measured on the basis of unit length and shall include the following:-

- i Cables and clamps
- ii Installation commissioning and testing
- iii Cable marking
- iv Cable route marker if required

#### **4.8 EARTHING**

##### **4.8.1 SCOPE**

The scope of work shall cover earthing stations, laying copper earthing strips etc.

##### **4.8.2 STANDARDS**

The following standards and rules shall be applicable.

1. IS: 3043 – 1966 Code of practice for earthing.
2. Indian Electricity Act and Rules.

All codes and standards mean the latest, where not specified other wise. The installation shall generally follow the Indian Standard code of practice or the British Standard codes of practice in the absence of Indian standards.

### **4.8.3 PLATE EARTHING STATION**

The earth electrodes shall be 1200x1200x12.6mm C.I plate. The earth resistance shall be maintained with a suitable soil treatment.

The resistance of each earth station should not exceed 5 ohms.

The earth lead shall be connected to the earth plate through copper/brass bolts. The earth plates, G.I. pipes, cross Cu bars and down copper connections shall form an earthing station.

### **4.8.4 EARTH LEADS AND CONNECTIONS**

Earth lead shall be as specified with sizes shown on drawings. At road crossing necessary hume pipes shall be laid. Earth lead run on surface of wall or ceiling shall be fixed on saddles or wall so that the strips is at least 8mm away from the wall surface.

The complete earthing system shall be mechanically and electrically connected to provide an independent return path to the earthing source.

### **4.8.5 EQUIPMENT EARTHING**

All apparatus and equipment transmitting or utilizing power shall be earthed in the following manner. Copper earth wires shall be used where copper wires are specified.

- a. Armoured cables shall be earthed by 2 distinct earth connections to the armouring at both the ends and the size of connection being same as for the metallic conduit.
- b. 3 phase power panels shall have 2 distinct earth connections of the size co-related to the incoming cable size.
- c. An equipment earthing grid is to be established. All earth connections to all panels and equipment shall be connected to the nearest point of the earthing grid.

### **4.8.6 TESTING**

The following earth resistance value shall be measured with an approved earth megger and recorded.

1. Each earthing station
2. Earthing system as a whole

### **4.8.7 MODE OF MEASUREMENT**

Providing Earthing station complete with excavation, electrode, watering pipe, funnel, top connector, interconnection between earth plate and top connector, soil treatment, masonry chamber, concrete/CI cover etc., shall be treated as one unit of measurement.

The following items of work shall be measured and paid at unit rates covering the cost of earth wire/strips, clamps, labour etc.

- a. Main equipment Earthing grid and connections to the Earthing stations.
- b. Connections to the switch board.

## **SCHEDULE IV**

### **SPECIAL CONDITIONS**

1. Contractor has to prepare all necessary drawings and submit to the Central/State Electrical Inspectorate for clearance within 20 days of award of work. Owner shall give basic drawings of all installation. Necessary follow up action shall be taken by the Contractor to obtain the clearance from the Electrical Inspectorate and Electricity Board.
2. On completing the installation, the completion certificate shall be issued to the Electrical Inspectorate for approval. The observations/comments issued by the Electrical Inspector has to be rectified at no extra cost.
3. The contractor by himself has to get the energy meter and CT's tested by Approved agency and test certificate produced.
4. Owner shall pay all statutory fee for the above works. All other cost shall be included in the offer.
5. The test certificate of all equipment has to be submitted to Owner on completion of work.
6. The contractor is expected to visit the site and study the probable routes of transportation of material to the site before quoting.
7. All the items of the work are to be executed as per relevant IS specifications.
8. The Contractor has to agree and strictly abide to all the conditions stipulated in the tender and any offers with deviation or request for deviation are liable to be rejected.
9. The guarantee shall be 12 months from the date of handing over the installation duly energized.
10. The contractor has to prepare a time schedule for the complete work in detail and submit to Owner in triplicate within 10 days from the day of Work Order/ Letter Of Intent
11. The contractor shall comply with by-laws and regulation of local and statutory authorities having jurisdiction over the work and shall be responsible for payment of all fees and other charges and the giving and receiving of all necessary notices and the Owner shall be kept informed of the said compliances with by-laws, payment made, notices issued and received
12. The quantities set out in the bill of quantities are the estimated quantities of the work. They are not to be taken as the actual and correct quantities of the works to be executed by the contractor in fulfillment of his obligations under the contract.

## SCHEDULE – V

### RECOMMENDED MAKES OF MATERIALS

SL NO	ITEM DESCRIPTION	RECOMMENDED MAKE
1	ACB-1200A	Schneider/ ABB/L&T
2	MCCB	Schneider/ ABB- current setting type
3	MPP (H) Capacitor	Schneider/L&T
4	Magnetic Contactor for APFC panel	Schneider/ABB
5	Energy Meter	Schneider-Conzerve/L&T
6	HT Cables (Aluminium)	Finolex, NICCO, RR Kabel, Rallison, Gloster
7	LT Cables (Aluminium /copper)	Finolex, NICCO, RR Kabel, Rallison, Gloster, VGuard
8	LT Isolators	L&T, Schneider, ABB
9	PVC Conduit & Accessories	Avon Plast, Balco, Konseal
10	MCB	Legrand, L&T, ABB, Schneider
11	Wires 1100V Grade	Finolex, RR Kabel, Rallison
12	Contactors	L&T, Schneider, ABB
13	Push buttons	L&T, Schneider, ABB
14	Indication Lamps (LED Type)	Tecnic, Vinay, Schneider, ABB
15	Protective Relays (Microprocessor based)	L&T, Schneider, ABB
16	Current transformer (LT)	Intrans, Kappa, PGR
17	Selector switches	Essen, Kaycee, L&T Salzer
18	Cable gland	Dowells, Jainson, Sigma
19	Al/Cu Lugs	Jainson, Dowells, Maxwell
20	Relays	Omron
21	Fluorescent fittings	Philips/CG/WIPRO
22	Voltmeter/Ammeter (digital) (all meters shall be digital type)	Schneider- Conzerve

**SCHEDULE – VI**

**SCHEMATIC DRAWING NO. HLL-CED-IP-DFP-001-00**

## SCHEDULE VII

### SCHEDULE OF QUANTITIES

Sub:	Supply, Installation, Testing and Commissioning of HT Electrification work of HLL Diagnostic & Polyclinic Facility at TRIDA Complex, Near Medical College Hospital, Thiruvananthapuram - reg.				
Sl. No	Description	Unit	Qty	Rate in Rs	Amount in Rs
1	Supply ,installation ,testing and commissioning of 315 KVA UNITISED SUBSTATION comprising 315 KVA Copper wound 11KV /433 V Dry type cast resin type Transformer . 3 Phase ,vector DYN -11 with off load tappings from +5% to -10 % in steps of 2.5%,operatable on offcircuit by tap links provided, with HV Terminals connecting to HT 11KV, 35KA 630 A 50 HZ VCB with two nos epoxy resin cast CT 30/5 A,CL- 0.5, 15VA burden,and 1 No epoxy resin cast PT 11KV/110 V , CL-O.5,100VA burden with shunt trip coil .(230 V AC-) LED type. on-off indication, Space heater with thermostat - 1 set, Incoming cable entry suitable for 3X150 sqmm XLPE cable. with provision for fixing TOD meter with glass cover in front of the meter test terminal box etc. complete (CT,PT, TOD Meter , chamber shall have suitable sealing facility.LV cable box suitable for two runs of 3.5X 300 sq.mm XLPE Cable with winding temp. indicator and all other standard fittings and accessories conforming to IS:2026/77 & IS : 11171/85 .Etc. complete. Recommended Make	No	1		
2	Supply, installation, testing and commissioning of a neutral CT of ratio 75/5A, CL: 5P10 ,15VA in a suitable metallic sheet steel enclosure in the transformer neutral for low set E/F protection, control cabling to the E/F relay including termination etc. complete	Set	1		
3	Supply and laying 3X300 Sqmm Aluminium conductor XLPE insulated PVC sheathed ,armoured 11 KV HT Cable conforming to IS specificationl to 315 KVA Unitised substation Through cable trench of 1m depth laid over sand bed and covered with bricks etc. as per standards. OR thru existing cable trench	Mtrs	180		
4	Supply and providing HT cable termination with heat shrinkable end termination set for 3x150 Sqmm XLPE- HT Cable.				
	a) Outdoor type	Nos	1		
	b) Indoor type	Nos	1		
5	Supply Installation ,testing&commissioning of HT -TOD Meter for the above	Nos	1		
6	Testing charges for CT,PT, TOD Meter etc.	LS	1		
7	Supply of Aluminium conductor XLPE insulated armoured cables of following sizes				
	a) 3 1/2 C X300 Sqmm	Mtrs	100		
	b) 3 1/2 CX 240 Sqmm	Mtrs	150		
	c) 3 1/2 CX120 Sqmm	Mtrs	100		
	d) 3 CX 25 Sq mm	Mtrs	100		
8	Laying of the following size of cables thru cable trench/underground /cable rack as per standards as per the instruction of engineer in charge				
	a) 3 1/2 C X300 Sqmm.l.	Mtrs	100		
	b) 3 1/2 CX240 Sqmm	Mtrs	150		
	c) 3 1/2 CX120 Sqmm	Mtrs	100		
	d) 3 CX 25 Sq mm	Mtrs	100		

**SCHEDULE VII**

**SCHEDULE OF QUANTITIES**

Sl. No	Description	Unit	Qty	Rate in Rs	Amount in Rs
<b>Sub: Supply, Installation, Testing and Commissioning of HT Electrification work of HLL Diagnostic &amp; Polyclinic Facility at TRIDA Complex, Near Medical College Hospital, Thiruvananthapuram - reg.</b>					
9	Supply and providing cable glands & end termination, gland Earthing etc.for following cable sizes				
	a) 3 1/2 C X300 Sqmm	Nos	4		
	b) 3 1/2 CX185 Sqmm	Nos	6		
	c) 3 1/2 CX120 Sqmm	Nos	4		
	d) 3 CX 25 Sq mm		4		
10	Supply and laying Copper strip for Earthing				
	a) 32 X 6 MM	Mtrs	20		
	b) 25 X 3 MM	Mtrs	160		
	c) No. 8 SWG Bare copper wire	Mtrs	100		
11	Supply and providing standard plate earthing devices 1200 X1200 X 12 mm Cast iron plate set with 38 mm GI Watering pipe etc. ,Constructing earth pits with brick work and supplying & installing CI Earth pit cover with mounting frame etc. as per IS 3043/66	Nos	8		
12	Supply fabricate and erect cable support rack/ tray using MS Angle and flat and applying a coat of metal primer and two coats of enamel paint	Kgm	800		
13	Supply fabricate and erect 6 mm Chequered plate as per instruction	Sq mtr	20		
14	Supply and providing HT Danger board	Nos	2		
15	Supply and providing LT Danger board	Nos	4		
16	Supply and providing HT Rubber glouse	Set	2		
17	Supply and providing fire bucket -3 Nos with stand	Set	1		
18	Supply and providing 12 mm Thick Rubber mat (electrical grade )-2m X 1m size	Nos	2		
19	Supply and providing 5Kg dcp type Fire extinguisher	Nos	2		
20	Supply and providing neatly framed schematic lay out as per requirement	Set	2		

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**SCHEDULE OF QUANTITIES**

<b>Sub: Supply, Installation, Testing and Commissioning of HT Electrification work of HLL Diagnostic &amp; Polyclinic Facility at TRIDA Complex, Near Medical College Hospital, Thiruvananthapuram - reg.</b>					
<b>Sl. No</b>	<b>Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate in Rs</b>	<b>Amount in Rs</b>
21	Supply all materials ,Designing ,fabricating,transporting ,erecting testing and commissioning of following cubicle type fully compartmentalised ,free standing switch boards ,dust and vermin proof ,Fabricated out of 14/16 Gauge CRCA Sheet and painted with two coats of anti corrosive Primer & Powder coated with approved color . The switch boards should be fabricated as per electrical inspectorate standards.Should conform to IS. /BIS standards. Suitable size of Aluminium busbars sleeved and supported by DMC/ SMC. Insulators-				
a)	MSB-1 - Incomer side --LT Side of Txr	NO	1		
	800 A 4Pole ACB with 2Nos. Over current and 1No. Earth fault release with shunt trip coil ,type -CDG- 11, Generator side -800A 4-Pole ACB with interlock system for both ACBs. Out going side : 400A TP MCCB -35 KA -1 NO ,300 A TP MCCB -35 KA -3 Nos. 125 A TP MCCB -35 KA -4 Nos. MC -12 -Earth fault relay -1No. Voltmeter -0-600V, Ammeter -0-600A -3 -Nos.Pilot lamps (LED type)-2 -SETS. CT class 0.5VA 600/5A - 4 Nos. Feederwise Energy meter - 8 N os. CT -Class-0.5VA.- 250/5A - 12 Nos., 150/ 5A -12 Nos. Suitable size Aluminium Busbars sleeved -as per standards-RYB N- 4 Nos.				
b)	Sub Switch Board -1 No.				
	Incomer- 400 A TP MCCB -1 NO Outgoing -300 A TP MCCB -25 KA - 1 NOS., 125A TP MCCB -25 KA- 3 NOS,and 100 A TP MCCB-25-KA-2 Nos. 125 A TP MCCB -25-KA SPARE - 2 Nos 500 V Volt meter &, Ammeter with selector switch pilot lamp set RYB -1 set with suitable size aluminium busbars -4nos. Sleeved Supported by DMC/ SMC Support insulators.	Nos	1		
22	Supply and Installation of 300mm sweep 950rpm suitable for 230V, 1 phase a/c supply Crompton/Bajaj or equivalent make exhaust fan for wash/toilets	each	15		
23	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 volts, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 amps tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCB's as required with MCB/RCCB/Isolator and ELCB (adjustable type). 16 Way( 8+24), Double door(PDB), Havells/Legrand/ABB or equivalent	set	10.00		
24	Supplying and fixing TP sheet steel enclosure on surface/ recess along with 63/100/250 amps 415 volts "C" curve TP MCB complete with connections, testing and commissioning etc. as required.(HVAC Units). MV cables/Cable Trays/Bus bars	set	5.00		
25	Supply and Laying of XLPE insulated XLPE sheathed steel armored / unarmored, Aluminium / Copper conductor cable 1.1KV class cable 'as per IS1554 Part-I. The cable shall be laid on existing cable tray using clamps nuts, bolts etc. as required as per the best engineering practices.(Including Termination)				
	Al. Conductor.Armoured XLPE insulated Cables				
a)	4C x 25 sq. mm Ar. Al. XLPE cable (DB) approx	Mtrs	300.00		
b)	4C x 16 sq. mm Ar. Al. XLPE cable (UDB)	Mtrs	200.00		
26	MultistrandCu.Conductor. Flexible FRLS PVC insulated Cables with termination, Finolex or equivalent				
a)	3C x 2.5 sqmm flexible PVC Cable	Mtrs	800.00		



**SCHEDULE VII**

**SCHEDULE OF QUANTITIES**

<b>Sub: Supply, Installation, Testing and Commissioning of HT Electrification work of HLL Diagnostic &amp; Polyclinic Facility at TRIDA Complex, Near Medical College Hospital, Thiruvananthapuram - reg.</b>					
<b>Sl. No</b>	<b>Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate in Rs</b>	<b>Amount in Rs</b>
27	LIGHTING /POWER OUTLETS. Light Point Wiring. Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FR PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FR PVC insulated copper conductor single core cable etc as required.				
a	1 light points controlled by 6A modular type SP switch	pts	40.00		
b	2 light points controlled by 6A modular type SP switch	pts	40		
28	Wiring for circuit/ submain wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required (including chipping, cutting and finishing, making good the surface).				
a	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	mtrs	900.00		
b	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	mtrs	700.00		
c	2 X 4 sq. mm + 1 X 4 sq. mm earth wire	mtrs	300.00		
29	<b>POWER OUTLETS</b>				
	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 amps modular socket outlet and 5/6 amps modular switch, connection etc. as required.	Nos	200.00		
30	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 amps modular socket outlet and 15/16amps modular switch, connection etc. as required.	Nos	150.00		
31	Supplying and 15/16 amps modular socket outlet and 15/16amps modular switch, connection etc for A.C provision as required.	Nos	30.00		
32	Supplying and installation 125 amps Industrial socket outlet 415 V	no	1.00		
33	Supplying and installation 100 amps Industrial socket outlet 415 V	no	1.00		
34	<b>EARTHING SYSTEM</b>				
	Earthing with G.I. earth pipe 1.5 meter long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required (As per IS3043/87)	set	2.00		
35	<b>EARTH STRIPS</b>				
	Providing and fixing No10 Copper wire on surface or in recess for loop earthing along with existing surface/ recessed conduit/ sub main wiring/ .cable as required	Mtrs	200.00		
36	<b>Light fixtures/ Fans/Ex Fans/ Miscellaneous</b>				
	Installation, testing and commissioning of pre-wired, fluorescent fitting / compact fluorescent/LED fitting of all types, complete with all accessories and tube etc. directly on ceiling/ wall, including connection with 1.5 sq. mm FR PVC insulated, copper conductor, single core cable and earthing etc. as required.( Excluding rate of fixtures)	Nos	200.00		

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**SCHEDULE OF QUANTITIES**

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<b>Sl. No</b>	<b>Description</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate in Rs</b>	<b>Amount in Rs</b>
37	Supply of Following Light fixtures				
a)	28W LED Fitting suitable to 1x40W FTL MO Fitting, (Make: Wipro/Philips or equivalent)	Nos	100.00		
b)	12W LED Fitting suitable (Make: Wipro/Philips or equivalent)	Nos	100.00		
38	Supply & installation of indoor type recessed mounting mirror optic luminaries suitable for 2x18W CFL lamp complete with all accessories and lamp of Make: Wipro/Philips or equivalent (false ceiling mounted) as per the direction of Engineer in charge	Nos	90.00		
39	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc as required.1 or 2 Module (75mmX75mm).	Nos	50.00		
40	Supplying and fixing following modular switch/socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. Havells/L&T or equivalent	Nos	50.00		
41	<b>Telephone Socket outlet</b> Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.	Nos	75.00		
42	<b>DATA Socket</b> Supply and Laying Cat-6 Networking cable in medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit	Mtrs	800.00		
43	Supply and Laying following pair 0.5 sq mm FR PVC insulated annealed copper conductor, unarmored telephone cable in medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit. Accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit.	Mtrs	600.00		
44	Preparation of all drawings ,submit to Central/State power authority /Electrical Inspectorate for getting approval and sanction .(All statutory fees shall be borne by HLL)	LS	1		
45	Additional electrical work for dismantling existing LT Supply panel metering panel,cables,glands etc as required complete as per direction of engineer in charge	LS	1		
TOTAL AMOUNT IN RS					
TAXES, AS APPLICABLE					
GRAND TOTAL IN RS					
<b>(IN WORDS)</b>					
I hereby agree to execute the works above at the rates quoted by me as above .					
<b>CONTRACTOR</b>					

