

# **TENDER DOCUMENT**

## **SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF CHILLED WATER AUTOMATION SYSTEM**

**AT**

**HLL LIFECARE LIMITED, IRAPURAM, COCHIN**

**HLL LIFECARE LIMITED**

(A Government of India Enterprise)

Plot No. 1 & 2, Rubber Park,

Irapuram, Valayanchirangara P.O

Perumbavoor, Ernakulam – 683 556, Kerala, India

Phn: 0484 - 2597200

## **INVITATION FOR BIDS (IFB)**

**IFB No** : **HLL/IFC/PUR/CWA/2016**  
**Date** : **09/05/2016**

HLL Lifecare Limited (HLL), a Government of India Enterprise invites sealed and super scribed bids from competent and experienced Suppliers/Contractors who are capable to do the following work meeting the requirements as per our tender.

Sl. No	Brief Description Of Item/Work	Quantity	EMD in Rs
1	Supply, Installation, Testing & Commissioning of Chilled water automation system at HLL Irapuram Factory, Cochin.	As per Schedule of Work & Drawings enclosed	10,000/-

2. The scheduled date for issue, receipt and opening of bids is as follows.

- a) Date of issue of tender document - 09/05/16
- b) Last date and time for receipt of bids - 23/05/16 up to 15.00 Hrs
- c) Date and time of opening of bids - 23/05/16, 15.30 Hrs.
- d) Address for communication, receipt and place of opening of bids:

The Unit Chief  
HLL Lifecare Ltd.,  
Irapuram Factory, Plot 1 & 2, Rubber Park, Irapuram,  
Valayanchirangara P.O, Ernakulam District- 683556  
E-mail: rejuskaria@lifecarehll.com, ifchll@lifecarehll.com,sudeepb@lifecarehll.com

- 3. The completed and sealed bid documents should be submitted to the **Unit Chief**, in the above address along with the EMD. The outer cover should bear the Enquiry No, closing date and General description of item tendered, and the words "DO NOT OPEN BEFORE" 15.30 Hrs (IST) on ----- (Indicate the Closing Date). EMD shall be submitted in the form of demand draft drawn from a nationalized bank in favour of HLL Lifecare Limited payable at Ernakulam. Bids received after due date and time will be rejected. Any bid not accompanied by EMD will be rejected.
- 4. 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 2 (d) above.
- 5. In the event of the date specified for bid receipt and opening being declared as a closed holiday for the above purchaser's office, the due date for submission of bids and opening of bids will be the following working day at the appointed times.
- 6. 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 HLL and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

7. 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.
8. 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 Invitation for bids without assigning any reason thereof.
9. In addition to the invitation for bids, the bidding documents include the following schedules.

SCHEDULE	- I	:	Conditions of Bid
SCHEDULE	- II	:	Detailed specification of item
SCHEDULE	- III	:	Conditions of Contract.
SCHEDULE	- IV	:	Acceptance Form
SCHEDULE	- V	:	Schedule of Items
ANNEXURE	- 1	:	Detailed Drawing

**Unit Chief**

## **SCHEDULE I**

### **CONDITIONS OF BID**

#### **1. Definitions**

- 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. **“Purchaser/Owner”** shall mean HLL Lifecare Limited, (Irapuram) or its units thereof.
- c. **“Bidder”** shall mean the person, firm or Corporation submitting a bid against this invitation for bid and shall also include his agents and representatives.
- d. **“Supplier/Contractor”** shall mean the bidder whose bid has been accepted and shall also include his successors and assigns, agents and representatives.
- e. **“Contract”** means signed acceptance of the Letter of Intent, if issued, and order by the supplier.
- f. **“Site”** shall mean **HLL Lifecare Limited, Irapuram Factory, Plot No.1, Rubber Park, Irapuram, Valayanchirangara PO, Ernakulam - 683556, Kerala**

#### **2. Bid Information and Period of Validity**

2.1 The Bid must include the following information,

- a. Enquiry / IFB No.
- b. Promised Delivery Schedule for each item/work.
- c. 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.
- d. All information requested in the specifications, dimensional drawings, technical literature describing the make offered, material etc., as specified in the bid document.
- e. EMD
- f. The Price should be quoted as per the following:
  - a. The Bidder shall indicate all prices including basic price, the relevant duties and taxes, other levies, packing & forwarding charges, charges for inland transportation and other local costs incidental to delivery of the goods to supplier's site, etc. on the appropriate price schedule 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 until the order is completely fulfilled.
  - d. All other documents/certificate/information as specified in the bid document.

2.2 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 All pages of the bid, except for un-amended printed literature shall be signed by the person or persons signing the bid.

- 3.2 Bids shall be made in English.
- 3.3 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 Bidder shall seal the original of the bid in outer envelope.
- 4.2 The envelopes shall be:
- (a) Addressed to the Purchaser in the following address,  
The Unit Chief  
HLL Lifecare Ltd.,  
Irapuram Factory, Plot 1 & 2, Rubber Park, Irapuram,  
Valayanchirangara PO, Ernakulam District- 683556  
Phn: 0484 – 2597200  
E-mail: rejuskaria@lifecarehll.com, ifchll@lifecarehll.com,sudeepb@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 ----- (Indicate the Closing Date).
- 4.3 If the outer envelope is not sealed and marked as indicated above, the Purchaser will assume no responsibility for the bid’s misplacement or premature opening.
- 4.4 Bids should be hand delivered or sent by courier to ensure timely arrival. Telex, cable, e-mail or facsimile bids will be rejected.
- Deadline for submission of Bids**
- 4.5 The bids will be received by the Purchaser in the above given address (4.2.a) not later than the date and time specified in the Invitation for Bids.
- In the event of the specified date for submission of Bids being declared a holiday for the Purchaser, the bids will be received up to the appointed time on the next working day.
- 4.6 The purchaser 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 Purchaser 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 the Unit Chief, in the above address by the date and time stipulated for receipt as above failing which the bid would be considered late and rejected. Purchaser 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 Purchaser in writing, or by email at the purchasers mailing address indicated in the Invitation for Bids. The Purchaser 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 Purchaser.

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

- 6.1 At any time prior to the deadline for submission of bids, the Purchaser may, for any reason, modify the Bidding Documents by amendment.
- 6.2 The amendment will be notified in the HLL website [www.lifecarehll.com](http://www.lifecarehll.com) in the Tenders section for all prospective Bidders, and will be binding on them.
- 6.3 In order to afford prospective Bidders reasonable time in which to take the amendment in to account in preparing their bid, the Purchaser may, at its discretion, extend the deadline for the submission of bids.

## **7. Bid Opening by Purchaser**

- 7.1 The Purchaser 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 Purchaser, 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 Purchaser, at its discretion, may consider appropriate will be announced at the opening.
- 7.3 The Purchaser will prepare appropriate bid opening register and the same shall be signed by bidders present during the opening of the bids and Purchaser.

## **8. Clarification of bids**

To assist in the examination, evaluation and comparison of bids, the purchaser 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 price or substance of the bid shall be sought, offered or permitted.

## **9. Preliminary examination**

- 9.1 The purchaser 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.
- 9.2 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, the amount in words shall prevail.

- 9.3 Prior to the detailed evaluation, the purchaser will determine the substantial responsiveness of each bid to the bidding documents. For purposes of these clauses, a substantially responsive bid is one that conforms to specifications and all the terms and conditions of the bidding documents without material deviation. The purchaser's determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.
- 9.4 A bid determined as not substantially responsive will be rejected by the purchaser and may not subsequently be made responsive by the bidder by correction of the non-conformity.
- 9.5 The purchaser 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.
- 9.6 The purchaser'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.

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

- 10.1 The purchaser will technically evaluate all bids previously determined to be responsive and compare the bids previously determined to be substantially responsive and technically acceptable.

## **11. Post – qualification**

- 11.1 Notwithstanding the qualification requirements given in this document, the Purchaser will determine to its satisfaction whether the Bidder selected as having submitted the lowest evaluated responsive bid is qualified to satisfactorily perform the Contract.
- 11.2 The determination will take into account the Bidder's financial, technical and production 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 Purchaser deems necessary and appropriate.
- 11.3 The Purchaser reserves the right to negotiate with the lowest evaluated responsive bidder.
- 11.4 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 Purchaser will proceed to the next lowest evaluated bid to make a similar determination of that bidder's capabilities to perform satisfactorily.
- 11.5 Conditional Bids shall not be entertained.

## **12. Award Criteria**

The Purchaser 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.

### **13. Notification of Award**

- 13.1 Prior to the expiration of the period of bid validity, the purchaser will notify the successful Bidder in writing by post or by 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 / Work order.
- 13.2 The signed acceptance of the notification of award by the Supplier/Contractor will constitute a concluded contract.

### **14. Earnest Money**

- 14.1 Each bid must be accompanied by E.M.D.
- 14.2 The EMD is required to protect the Purchaser against risk of Bidder's conduct, which would warrant the security's forfeiture
  - a. The EMD shall be denominated in Indian Rupees and shall be in the form of cash deposit or demand draft from a nationalized bank drawn in favour of HLL Lifecare Limited payable at Ernakulam.
  - 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.
  - c. E.M.D of the remaining two unsuccessful bidders will be released after the acceptance of the notification of award by the successful bidder.
  - d. In the case of successful bidder, the Earnest Money will be returned after the satisfactory completion of the work and acceptance of item/work by HLL.
- 14.3 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) If the Bidder fails to sign the Contract / Work order, in the case of successful Bidder.



## **SCHEDULE II**

### **DETAILED SPECIFICATION OF ITEM & SCOPE OF WORK**

#### **Requirement:**

We are in the process of automating the chilled water circulation system at HLL, Irapuram factory, Cochin. For the automation of the chilled water system, we require PLC, HMI, Solenoid valve, RTD module, pressure transmitter, cable laying and wiring etc as per the specifications given below:

#### **Specifications:**

Items : PLC -2 no.'s  
7" HMI -2 no.'s  
Solenoid valve 1" (24V DC coil voltage) – 4 no.'s  
4 channel RTD module – 1no.  
Analog input module 4AI – 1no.  
Submersible pressure transmitter – 2 no.'s  
Shielded cable for analog signals – 1lot (approx.200mtr)  
Ethernet/IP communication connectivity between the control systems.  
Fully wired and configured wall/machine mountable control panel, IP65 enclosure & other necessary accessories for the chilled water pump area and moulding machine area.

#### **Item Make-**

PLC, HMI: Allen Bradley/Siemens/Omron  
Solenoid valve: Teril/ASCO/Festo  
Submersible pressure transmitter: P & F/Autonics

**The project implementation agency should be authorized system integrator for the OEM. (Authorization certificate to be enclosed with the tender)**

#### **SCOPE OF WORK**

##### **Temperature control & monitoring system at the moulding machine dipping tanks**

- HMI's to be installed in the two kende moulding machines shall control and monitor the dipping tank latex temperatures (2 dipping tanks in each moulding line).
- The chilled water circulation to the jacketed latex dipping tanks to be controlled with solenoid valves. (By pass system for existing manual operation)
- All the process related parameters and the status of the pumps shall be made available at the HMI's at moulding machine area.

### **Chilled water tank level controller**

- The chilled water tanks i.e overhead and underground tanks shall be provided with level controller to ensure continuous flow of chilled water to the moulding machines and compounding area. This is to eliminate air lock issues in the chilled water pipelines and ensuring availability of chilled water.
- Chilled water level in the overhead and underground tanks are monitored and shall be made available at the moulding machine area.
- Option to be provided for the auto/manual operation of the chilled water pumps.
- Healthiness of the chilled water pump control system shall be continuously monitored and shall be used for controlling the pumps.
- All communication between the control system near the moulding lines and at the pump room shall be over IP/Ethernet.

**The system proposed shall be fully scaleable and deterministic.**

Note:- Given specification are indicative only. The supplier should visit the site and see the existing chilled water circulation system and its provisions and also take their own assessments before quoting of bids. Prior permission from HLL shall be taken for visiting the plant. The purchaser will not be responsible for any wrong quotes due to inadequate information.

The scope of work includes supply of all materials, complete as per IS specifications and standards, installation, testing, commissioning and hand over for use.

Detailed technical details mentioned in drawings: no. HLL-IFC-CWA-001

Data sheets, Test certificates and Vendor Manual shall be submitted by the vendor along with supply of materials.

## SCHEDULE III

### CONDITIONS OF CONTRACT

#### **1. Price**

The price quoted should be inclusive of Basic Price, all applicable taxes and duties including VAT, Entry tax, Octroi & other levies, P&F charges, insurance, commissioning charges etc. The Supplier should pay entry taxes, as applicable and should be included in the offer. The offer should, inter-alia, include the breakups as per the SCHEDULE V attached.

Price quoted should be firm without any escalation till the order is completely executed.

#### **2. Taxes/Duties/Levies**

The supplier/contractor shall be entirely responsible for all taxes including entry tax, duties, license fees, etc. incurred until successful completion of contract. All central, state, municipal taxes, duties and levies payable shall be shown by the bidder separately in the Bid. The Purchaser will issue necessary 'C' Form, if required.

#### **3. Insurance**

The supplier shall arrange insurance coverage for transit, storage and erection.

#### **4. Delivery/Completion Period**

The equipment and its accessories should be delivered and commissioned within 6 **WEEKS** from the date of Letter Of Intent or Order.

Time being the essence of the Contract, the delivery, stipulated should be strictly adhered to. Delay in delivery/non delivery of the equipment will cause loss and/or damage to Purchaser. The delivery period shall be counted from the date of sending of Purchaser's intimation of acceptance of the Supplier's offer (Letter of Intent (LOI) and/or order).

#### **5. Terms Of Payment**

The payment terms offered are as follows: -

- a) 90% of the total supply value of equipment/s and 90% of the erection & commissioning charges will be paid after successful supply, installation & commissioning of the equipment at site, on pro rata basis.
- b) 10% of the total value of the equipment/s and 10% of the erection & commissioning charges will be paid against a Performance Bank Guarantee (from a nationalized bank) equal to 10% of the total contract value valid for the guarantee period of one year.

Tax Deduction: All statutory deductions like Income Tax or any other government-imposed liabilities shall be borne by the Supplier/Contractor (as applicable at the time of execution of job) and shall be deducted from each bill submitted by the Supplier/Contractor.

## **6. Guarantee Period**

The Guarantee against any possible manufacturing defects shall be given for a period of 18 months from the date of supply and acceptance of the items at HLL site or 12 months from the date of installation, whichever is earlier.

## **7. Liquidated damages for delays**

If the equipment is not supplied to the purchaser within the time stipulated in the Order, Purchaser may at their option, either (1) recover from the Supplier/Contractor liquidated damages at the rate of 0.5 % of the total contract value for every week of delay, subject to a maximum of 5 % of the total contract value, or (2) at the risk and cost of the Supplier and without prejudice to the other remedies/rights as per the Contract, terminate the order wholly or partially and complete it themselves or reassign it to other Suppliers/Contractors.

## **8. Inspection And Testing**

Purchaser shall have the right of access to the Supplier's/Contractor's works at all reasonable times to inspect and measure the progress of execution of the Order. The Supplier/Contractor should make available all tools, instruments, apparatus, equipment, facilities, services and materials to enable the Purchaser's nominee to carryout such inspection/tests without obligations. Notwithstanding such tests/inspection conducted at the Supplier's works from time to time, goods under the Order shall not be dispatched unless they have been finally inspected by the purchaser or inspection waived and dispatch specifically authorized in writing, wherever inspection during various stages of execution of the order and prior to dispatch are specifically provided for in the order, sufficient advance notice shall be given to the purchaser for the purpose, and as a consequence of such inspection, if necessary, the Supplier shall arrange re-work at his own cost. Notwithstanding any such inspection/tests carried out at Supplier's works, the equipment shall be accepted only after receipt and successful commissioning at the site and the inspection/tests carried out at Supplier's works will not relieve his contractual obligations for conforming to the specifications under the Order.

## **9. Performance Guarantee**

The Supplier shall fully guarantee all of the equipment supplied to perform in accordance with the specifications and to be free of all defects in design, material and workmanship. Should any equipment not performing as intended or should the design, material or workmanship prove defective within a period of 12 months from the date of successful commissioning, the equipment shall, upon notification of deficiency or defect, be promptly corrected by the Supplier to the satisfaction of Purchaser without delay and at no extra cost. If the Supplier fails to take proper corrective action to replace or repair the deficiency within a reasonable time of Purchaser's notification to this effect, the Purchaser shall be free to take such corrective action at the Supplier's risk and cost.

## **10. Scope of Services, Supplies and Materials:**

The scope will include all services, supplies etc. for the satisfactory execution of the Contract except in so far as any of those are expressly excluded.

## **11. Force Majeure**

- a. Neither the Supplier nor the Purchaser shall be considered in default in the performance of their obligations as per the Contract so long as such performance is prevented or delayed because of strikes, war, hostilities, revolution, civil commotion, epidemics, accidents, fire, cyclone, flood or because of any law and order proclamation, regulation or ordinance of Government or subdivision thereof or because of any act of God. The proof of existence of force majeure shall be provided by the party claiming it to the satisfaction of the other.
- b. The Supplier shall advise Purchaser initially by a Fax, followed by post, the beginning and end of any of the above causes of delay, failing which Purchaser shall not be liable to consider delays due to the above reasons. Notice as stated above should be given even in case where only the Supplier's bids are under the consideration of the Purchaser and no acceptance of the same has been given and detailed order issued.
- c. In the event of definite delay even if arising out of reasons due to force majeure, Purchaser shall have the right at their discretion to cancel the Order or part of the Order without any liability on their part to make any payment to the Supplier while reserving the right to claim refund of and any payment if advanced or paid to Supplier.

## **12. Assignment And Subletting**

No assignment and subletting of whole or part of the order shall be permitted except with prior approval of purchase obtained in writing.

## **13. Correspondence**

All correspondence relating to this enquiry shall be in English, to:

The Unit Chief  
HLL Lifecare Ltd.,  
Irapuram Factory, Plot 1 & 2, Rubber Park, Irapuram,  
Valayanchirangara PO, Ernakulam District- 683556  
Phn: 0484 – 2597200  
E-mail: rejuskaria@lifecarehll.com, ifchll@lifecarehll.com, sudeepb@lifecarehll.com

## **14. Indemnification Clause**

The Supplier shall indemnify and hold harmless the Purchaser from and against all claims, liability, loss damage or expense, including counsel fees arising from or by reason of any actual or claimed trade mark, patent or copy right infringement or any litigation based thereon with respect to any part of the items covered by the Contract, and such obligations shall survive acceptance of payment for the items.

## **15. Entirety of the Agreement**

All of the terms agreed to between the Supplier and Purchaser will be included in the Purchase/work Order/Contract and no their communication, proposal or understanding, written, oral or implied, will be considered to be included in the Purchase/work Order/Contract or form part of the Contract

between the Supplier and Purchaser unless specifically agreed to in that behalf in writing between Purchaser and Supplier.

#### **16. Settlement Of Disputes**

Arbitration shall not be a means of settlement of any dispute or claim arising out of the contract relating to the work. Any disputes or difference arising between the parties with respect to the performance of any part of this agreement or anything connected therewith, etc shall as far as possible be mutually settled by the process of dialog and negotiation. The Courts at Thiruvananthapuram alone shall have jurisdiction in respect of settlement of any matter arising out or in connection with the contract.

## **SCHEDULE IV**

### **ACCEPTANCE FORM**

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

From

To

The Unit Chief  
HLL Lifecare Ltd.,  
Irapuram Factory, Plot 1 & 2, Rubber Park, Irapuram,  
Valayanchirangara PO, Ernakulam District- 683556

Phn: 0484 – 2597200

E-mail: rejuskaria@lifecarehll.com, ifchll@lifecarehll.com, sudeepb@lifecarehll.com

Dear Sir,

I / We, hereby offer to design/supply/erect/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 schedule and agree to hold this offer open till 90 days after 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 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.

Yours faithfully,

**SIGNATURE OF THE BIDDER**

## **SCHEDULE V**

SCHEDULE OF WORK						
SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF CHILLED WATER AUTOMATION SYSTEM FOR HLL IRAPURAM			SUPPLY		INSTALLATION & COMMISSIONING	
SL. NO.	PARTICULARS	QTY	RATE IN RS.	AMOUNT IN RS.	RATE IN RS.	AMOUNT IN RS.
1	PLC based control system with HMI's, solenoid valves, control panel & wiring to suit the application for automated chiller water circulation in the moulding machine dipping tanks	1 set				
2	PLC based control system with submersible pressure transmitter, control panel, cabling and wiring to suit the application for automation of chilled water circulation in chilled water tanks	1set				
TOTAL AMOUNT IN RS.						
APPLICABLE TAXES						
GRAND TOTAL IN RS						
I agree to execute the work as per the schedule at per the rates quoted by me as above						
CONTRACTOR						

## **NOTE**

1)	Bill of materials detailed description can be mentioned in a separate sheet for reference
2)	The materials should strictly comply to the make prescribed in the tender (schedule II)
3)	The bidder shall visit and inspect the site and understand the scope of work, before quoting for the work.
4)	The project implementation agency should be authorized system integrator for the OEM.