

TENDER DOCUMENT

**SUPPLY, INSTALLATION, TESTING &
COMMISSIONING OF FIRE FIGHTING SYSTEM**

FOR

LNG SATELLITE STATION

AT

**HLL LIFECARE LIMITED,
PEROORKADA FACTORY,
THIRUVANANTHAPURAM – 695 005,
KERALA, INDIA.**

HLL LIFECARE LIMITED
(A Government of India Enterprise)
Project Division, Peroorkada. PO,
Thiruvananthapuram – 695005,
Kerala, India
Phn: 0471 – 2437270, 2437884
Fax: 0471 – 2432898, 2432647

INVITATION FOR BIDS (IFB)

IFB No : HLL/IP/LNG/FIRE FIGHTING/2014
Date : 02-01-2014

HLL Lifecare Limited (HLL), a Government of India Enterprise is in the process of setting up LNG Storage and Regasification facility at Peroorkada Factory. For the said project, Sealed and Super scribed bids are invited from competent and experienced Suppliers/Contractors who are capable to do the following work meeting the requirements as per our tender.

SI No	Name of Work	Quantity	EMD Amount
1	Supply, Installation, Testing & Commissioning of Fire Fighting System for LNG Satellite Station at our Peroorkada Factory, Thiruvananthapuram.	As per Schedule of Quantities	Rs 50,000/-

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

- a) Date of issue of tender document - 02-01-2014
- b) Last date and time for receipt of bids - 18-01-2014 up to 15.00 Hrs
- c) Date and time of opening of bids - 18-01-2014, 15.30 Hrs.
- d) Address for communication, receipt and place of opening of bids:

EXECUTIVE DIRECTOR (INTERNAL PROJECTS),
HLL LIFECARE LIMITED
Projects Division, Peroorkada. PO,
Thiruvananthapuram – 695005, Kerala, India
Phn: 0471 – 2437270, 2437884
Fax: 0471 – 2432898, 2432647
E-mail: nnavikumar@lifecarehll.com, harikrishnankp@lifecarehll.com

3. The Bid must include the following information;

- a. Enquiry No.
- b. EMD
- c. Promised Completion Schedule
- d. Acceptance Form (Schedule III)
- e. Schedule of Quantities (Schedule VI)
- f. All other documents/certificate/information as specified in the bid document.

4. The completed and sealed bid documents should be submitted to **Executive Director (Internal Projects)**, 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 Thiruvananthapuram. Bids received after due date and time will be rejected. Any bid not accompanied by EMD will be rejected.
5. 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.
6. 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.
7. 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.
8. 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.
9. 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.
10. In addition to the invitation for bids, the bidding documents include the following Schedules.

SCHEDULE	- I	:	Conditions of Bid
SCHEDULE	- II	:	Conditions of Contract
SCHEDULE	- III	:	Acceptance Form
SCHEDULE	- IV	:	List of Approved Makes
SCHEDULE	- V	:	Drawing
SCHEDULE	- VI	:	Schedule of Quantities

EXECUTIVE DIRECTOR (INTERNAL PROJECTS)

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, (Thiruvananthapuram) 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 Intend, if issued, and order by the supplier.
- f. **“Site”** shall mean **HLL Lifecare Limited, Peroorkada Factory, Peroorkada, Thiruvananthapuram, Kerala.**

2. Bid Information and Period of Validity

2.1 The Bid must include the following information,

- a. Enquiry / IFB No.
- b. Promised Delivery/ Completion 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:
 - i) 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 (SCHEDULE OF QUANTITIES – SCHEDULE VI) attached to these documents for completing the above work as per the Specification, Terms and Conditions as specified in the Bid Documents. Civil work is excluded from the scope of the supplier.
 - ii) Bidder must quote for unit price and total price based on the requirement shown in the bid document.
 - iii) Price should be firm without any escalation on any account until the order is completely fulfilled.

iv) 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

4.2 The bid envelope shall be:

(a) Addressed to the Purchaser in the following address,

Executive Director (Internal Projects),
HLL Lifecare Limited, Peroorkada Factory,
Thiruvananthapuram – 695 005,
Kerala, India.
Phn: ++91 471 2437270
Fax: ++91 471 2432647

(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 The envelope shall also indicate the name and address of the Bidder. 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 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. 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 fax 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 writing or fax or telegram or e-mail to all prospective Bidders, which have received the Bidding Documents 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. Notification of Award

- 9.1 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 Intend / Work order.
- 9.2 The signed acceptance of the notification of award by the Supplier/Contractor will constitute a concluded contract.

10. Earnest Money

- 10.1 Each bid must be accompanied by E.M.D.
- 10.2 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 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.
 - 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.
- 10.3 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

CONDITIONS OF CONTRACT

1. Price

The rates quoted in **Schedule of Quantities (Schedule VI)** should be inclusive of Basic Price, all applicable taxes and duties including VAT, Entry tax, Octroi & other levies, P&F charges, loading charges, insurance, erection and commissioning charges etc for completing the work as per schedule.

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.

Note:

The Purchaser shall not be liable to pay any tax/duty/levy incurred during the transactions between the Supplier and his sub-suppliers and or Agents.

3. Insurance

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

4. Completion Period

The work should be completed within **6 WEEKS** from the date of issuing the Letter Of Intent or Work Order.

Time being the essence of the Contract, the delivery, stipulated should be strictly adhered to. Delay in delivery/non delivery of the materials 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

a) The payment terms are as follows: -

- i) 60% of the value of goods supplied/work executed at site shall be made immediately after supply of materials/work executed at site.
- ii) 30% 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) 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.

Payment will be made against actual measurements recorded and certified jointly by HLL Engineer in charge and the Contractor's representative.

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.

6. Guarantee Period

Guarantee period for the work shall be given for a minimum period of 12 months from the date of satisfactory completion of work.

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 7.5 % 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:

EXECUTIVE DIRECTOR (INTERNAL PROJECTS),
HLL LIFECARE LIMITED
Projects Division, Peroorkada. PO,
Thiruvananthapuram – 695005,
Kerala, India
Phn: 0471 – 2437270, 2437884
Fax: 0471 – 2432898, 2432647
E-mail: nnavikumar@lifecarehll.com, harikrishnankp@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 other 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 any thing 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 III

ACCEPTANCE FORM

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

From

To

EXECUTIVE DIRECTOR (INTERNAL PROJECTS),
HLL LIFECARE LIMITED
Projects Division, Peroorkada. PO,
Thiruvananthapuram – 695005,
Kerala, India
Phn: 0471 – 2437270, 2437884
Fax: 0471 – 2432898, 2432647
E-mail: nnavikumar@lifecarehll.com, harikrishnankp@lifecarehll.com

Dear Sir,

I / We, hereby offer to design, supply, fabricate, install, test and commission the system 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 IV		
LIST OF APPROVED MAKES		
SL NO.	MATERIALS	APPROVED MAKES
1	Motor	Kirloskar/Siemens/ABB/Crompton Greaves
2	Pump	Kirloskar/Mather & Platt/KSB/Beacon
3	MS Pipe	Tata/Jindal/SAIL
4	GI & MS fittings	Tube weld/Tube products/Punjab steel/TNT
5	Valves	Kirloskar / Kalpana / Updhaya / Leader / Advance
6	Strainer	Sant/Emerlad/Teleflo/Jaypee/ Grandpix
7	Pressure guage	Fiebig/H.Guru
8	Pressure switch	Indfoss/Switzer/Schneider
9	Hydrant valve &	Newage/Steelage/ Arihant/Shah Bhogilal
10	Fire brigade point Branch pipe	Newage/ Arihant/Shah Bhogilal
11	CP hose	Newage/Shah Bhogilal/Pyroline
12	Hose cabinet	Newage/ Zenith/Shah Bhogilal
13	Hardware	TATA/Sundaram fasteners/GKW
14	Paint	Asian/ICI/Nerolac/Berger
15	Polymeric mix	IWL
16	Fire extinguisher	Ceasefire/ Minimax / Safex / Bharat /Safeguard.
17	Alarm valve	HD / Tyco (UL listed)
18	Flexible pipe	Any UL listed
19	FRLS Cable	Havells/Finolex/Polycab/RR Kabel

SCHEDULE V

DRAWING REF NO.HLL-J-067-00

SCHEDULE VI									
SCHEDULE OF QUANTITIES									
Sub: Supply, Installation, Testing and Commissioning of Fire Fighting Systems for LNG Satellite Station at HLL Lifecare Ltd., Peroorkada Factory, Trivandrum - reg.									
SL NO	DESCRIPTION	QTY	UNIT	SUPPLY		ERECTION		TOTAL	
				UNIT RATE IN RS.	AMOUNT IN RS.	UNIT RATE IN RS.	AMOUNT IN RS.	UNIT RATE IN RS.	AMOUNT IN RS.
A	PART A								
1	MAIN PUMP								
	Supplying, Installation, Testing and Commissioning of Electric driven main fire pump suitable for automatic operation and consisting of following : complete in all respect as required.(a)Horizontal type, multistage, centrifugal, spilt casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 kg/sq.cm.at highest and farthest outlet at specified flow of 2280lpm at 70 m. head conforming to IS 5120. (b) Suitable HP SQ cage induction motor, TEFC, synchronous speed 1500 RPM, suitable for operation on 415 volts, 3 phase 50 Hz. AC with IP 55 protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325.(c)M.S. fabricated Common base plate, coupling guard, foundation bolts etc. as required. (d)Inter connection with suitable size PVC insulated PVC sheathed armoured copper conductor cable etc as required. (e)Suitable cement concrete foundation dulyplastered with antivibration pads. Make: ABB / KIRLOSKAR / Crompton	1	No						
2	JOCKEY PUMP								
	Supplying, Installation, Testing and Commissioning of Electric driven pressurisation pump suitable for automatic operation and consisting of following : complete in all respect as required. a)Horizontal type, multistage, centrifugal pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal and flow of 180 lpm at 70 m head conforming to IS :5120. (b)Suitable HP SQ cage induction motor, TEFC class 8 type suitable for operation on 415 volts, 3 phase 50 Hz. AC with IP 55 protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325.(c)M.S. fabricated Common base plate, coupling,coupling guard, foundation bolts etc. as required. (d)Inter connection with suitable size PVC insulated PVC sheathed armoured copper conductor cable etc as required. (e)Suitable cement concrete foundation duly plastered with antivibration pads. Make: ABB / KIRLOSKAR / Crompton	1	No						
3	CONTROL PANEL								
	Fabrication, Supplying, Installation, Testing and Commissioning of Electrical control panel of cubical construction, floor mounted type, fabricated out of 2mm. thick CRCA sheet, compartmentalised with hinged lockable doors, dust and vermin proof, powder coated of approved shade after 7 tank treatment process, cable alley, inter connection, having switchgears and accessories mounting and internal wiring, earth terminals, numbering etc. complete in all respect, suitable for operation on 415 V, 3 phase, 50 Hz. AC supply with enclosure protection class IP 42 required.	1	No						
	(A) COMMON PANEL IN FIRE PUMP HOUSE								
	INCOMER (a)300 Amps. TPN								
	(b) Voltmeter (0-500 Volts) with selector switch.								
	(c) Ameter (0-200 Amps) with selector switch & CT's etc.								
	(d)Set of 3 Phase indicating lamp.								
	(e)Set of Al. bus bar 250Amps.								
	OUTGOING								
	(a) Main Fire pump 250 Amps. TPN with suitable HP fully automatic star/delta starter with over load protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/ OFF operation.								
	(b) Jockey pump 63 Amps. TPN with HRC fuses with suitable HP fully automatic DOL starter with over load protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/ OFF operation.								
	(C) SYSTEM CONTROLER								
	Designing, Supply, Installation, Testing and commissioning of System controler to control operation of Main Electric Fire Pump, Pressurisation Pump, Terrace Pump in sequence as per specification consisting of relays, timers, sensors, annunciation window for fault indication, complete as per specification.								

SCHEDULE VI									
SCHEDULE OF QUANTITIES									
Sub: Supply, Installation, Testing and Commissioning of Fire Fighting Systems for LNG Satellite Station at HLL Lifecare Ltd., Peroorkada Factory, Trivandrum - reg.									
SL NO	DESCRIPTION	QTY	UNIT	SUPPLY		ERECTION		TOTAL	
				UNIT RATE IN RS.	AMOUNT IN RS.	UNIT RATE IN RS.	AMOUNT IN RS.	UNIT RATE IN RS.	AMOUNT IN RS.
4	CABLE								
	Supply and Laying of below sized XLPE insulated PVC sheathed Aluminium conductor armored cabling to the incoming and outgoing of fire pump panel including necessary termination, glanding, necessary connections etc								
	a 3.5 x125 sq mm routed in soil	60	Mtr						
	b 3.5 x50 sq mm on wall, floor	15	Mtr						
	c 3.5 x16 sq mm on wall, floor	15	Mtr						
5	PIPING								
	Providing, laying, testing and commissioning of 'C' class heavy duty GI pipe conforming to IS:1239 l/c fittings like elbows, tees, flanges, tapers, nuts, bolts, gaskets etc fixing the pipe on the wall/ ceiling with suitable clamps and painting with two or more coats of synthetic enamel paint of required shade complete as required.								
	a 150 mm dia	500	Mtr						
	b 100 mm dia	24	Mtr						
	c 80 mm dia	24	Mtr						
6	PRIMING CONNECTION								
	Supply installation testing commssioning of necessary priming connections with 2 nos 50 mm dia GI 'C' class pipe ,with 2 nos 50 mm dia gunmetal gate valve and gun metal non return valve for all pumps	1	No						
7	BUTTERFLY VALVE								
	Supplying , fixing, testing and commissioning of butterfly valve PN 1.6, bronze/ Gun metal seat duly ISI marked complete with Nuts, Bolts, washers, gaskets, conforming to IS 13095 of following sizes as required.								
	a 150 mm dia	6	No						
	b 80 mm dia	2	No						
8	NON RETURN VALVE								
	Providing and fixing horizontal type cast iron double flanged Non - return valve of approved quality conforming to IS:5312 with bolts, nuts, washers, 3mm thick insertion rubber gaskets complete. as reqd.								
	a 150 mm dia	1	No						
	b 80 mm dia	1	No						
9	PRESSURE GAUGE								
	Supplying, fixing, testing and commissioning of 0-15 Kg/sq cm100mm dia Dial type pressure gauge with isolation cock and pipe at hydrant station as per specification.	2	No						
10	PRESSURE SWITCH								
	Supply, installation, testing and commissioning of industrial type pressure switch having 1/4" BSP(F) connection IP:32 enclosure protection, phosphor bronze bellows as sensing element, SDPT contact system, switch rating 6A Inductive/IOA resistive 380 V AC, 0.2A Inductive/10A resistive 250V DC suit with ball valve etc. complete as required.	2	No						
11	SPRINKLER ALARM VALVE								
	Providing, fixing, testing and commissioning of installation control valve of cast iron body and braas/bronze working parts comprising of water motor alarm bronze seat clapper and clapper arm hydraulically driven mechanical gong bell to sound continuous alarm when the wet riser/sprinkler system activates pressure gauges, emergency releases, strainer, pressure switch cook valve complete with drain valve and pass test control box, ball valves, MS pipe of required size, flanges, orifice plate, gasket etc of size 150mm dia as required.	1	No						

SCHEDULE VI									
SCHEDULE OF QUANTITIES									
Sub: Supply, Installation, Testing and Commissioning of Fire Fighting Systems for LNG Satellite Station at HLL Lifecare Ltd., Peroorkada Factory, Trivandrum - reg.									
SL NO	DESCRIPTION	QTY	UNIT	SUPPLY		ERECTION		TOTAL	
				UNIT RATE IN RS.	AMOUNT IN RS.	UNIT RATE IN RS.	AMOUNT IN RS.	UNIT RATE IN RS.	AMOUNT IN RS.
12	AIR RELEASE VALVE								
	Supply, installation, testing and commissioning of Gun metal Air Release valve 20mm dia	1	No						
13	FIRE BRIGADE INLET								
	Supply, installation, testing and commissioning of 4 way Fire Brigade Inlet connection of 63 mm dia. built - in Gun metal Non- return valves instantaneous coupling type arrangement to be connected to wet riser main.	1	No						
14	Y' STRAINER								
	Supply Installation testing and commissioning of strainers complete with bolts, nuts, washers and rubber gaskets etc conforming to IS 907 : 1984								
a	150 mm dia	1	No						
b	80 mm dia	1	No						
15	AIR CUSSION VESSEL								
	Supplying, Installation, Testing & Commissioning of air cushion tank (air vessel) of continuous welded construction, fabricated out of atleast 8mm thick steel with dished ends, galvanised to IS:4736-1968 and supporting legs, 250mm dia & 1200mm high complete with necessary air release valve, safety valve, pressure gauge, flange connection to the wet riser piping with necessary piping to meet the functional requirement of the system.	1	No						
16	Design, Supply, Fabrication, Installation & Commissioning of mild steel structural supports for the pipelines as required, including two coats of primer and two coats of synthetic enamel paint (Make: Asian/Berger) of approved color & shade, as instructed by HLL Engineer incharge.	6000	Kg						
B	PART B - LNG YARD								
1	Fabrication, Installation & Commissioning of Fire Fighting pipeline of 8 inch size along LNG yard at a Depth of 1 meter (underground) including excavation, refilling of excavated earth, provision of sleeves and wrapping wherever required etc complete. Pipes will be provided by HLL	150	Mtr						
2	Installation of following Fire fighting Equipments in Fire fighting pipeline as instructed by Engineer In Charge at the LNG Yard. Firefighting items will be provided by HLL.								
a)	Fire Monitor (4 inch)	4	Nos						
b)	Fire Hydrant (3 inch)	4	Nos						
c)	Butterfly valves for above pipeline of 8" size	5	Nos						
d)	Fire Hose reel	4	Nos						
e)	Fire Hose Box	4	Nos						
3	Installation of Fire Hose box (750 mm x 650 mm x 250 mm) with supports along LNG yard. Fire Hose Box will be provided by HLL.	4	Nos						
4	Painting of pipelines, wherever required including two coats of primer and two or more coats of synthetic enamel paint (Make: Asian/Berger) of approved color & shade, as instructed by HLL Engineer incharge.	100	SQM						
C	PRE-COMMISSIONING & COMMISSIONING ACTIVITIES								
1	Hydro Testing of fire fighting pipeline with 48 hours holding time at a pressure of 10.5 kg/cm2 and Commissioning of Fire fighting pipeline at a pressure of 7 kg/cm2	1	L/s						
2	Obtaining NOC from Fire Authorities								
	Preparation of all drawings, submitting to the statutory authority for getting NOC and sanction, Liaisoning charges etc. complete. (All statutory fees for the same shall be reimbursed by HLL, on production of original documents)	1	L/s						
TOTAL AMOUNT IN RS.									
APPLICABLE TAXES									
GRAND TOTAL AMOUNT IN RS (INCLUSIVE OF TAXES)									
(IN WORDS)									
I agree to execute the works as per the schedule at the rates quoted by me as above									
									CONTRACTOR