

# **TENDER DOCUMENT**

**DESIGN, SUPPLY, FABRICATION,  
INSTALLATION, TESTING & COMMISSIONING  
OF THE NATURAL GAS PIPELINE**

**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/NG PIPING/2013-14  
Date : 31-12-2013

HLL Lifecare Limited (HLL), a Government of India Enterprise is in the process of setting up a 39.5 KL capacity 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.

Sl. No	Brief Description Of Item/Work	Quantity	EMD in Rs
1	Design, Supply, Fabrication, Installation, Testing & Commissioning of the Natural Gas pipeline (as per IS: 15663 Specifications Part 1, 2 and 3) at our Peroorkada Factory, Thiruvananthapuram.	As per Schedule of Quantities and Drawing enclosed	Rs 25,000/-

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

- a) Date of issue of tender document - 31-12-2013
- 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 IV)
- e. Schedule of Quantities (Schedule V)
- f. All other documents/certificate/information as specified in the bid document.

2. 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.
3. 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.
4. 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.
5. 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.
6. 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.
7. 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.
8. 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	:	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 (FORMAT FOR QUOTING – SCHEDULE IV) 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 IV)** 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

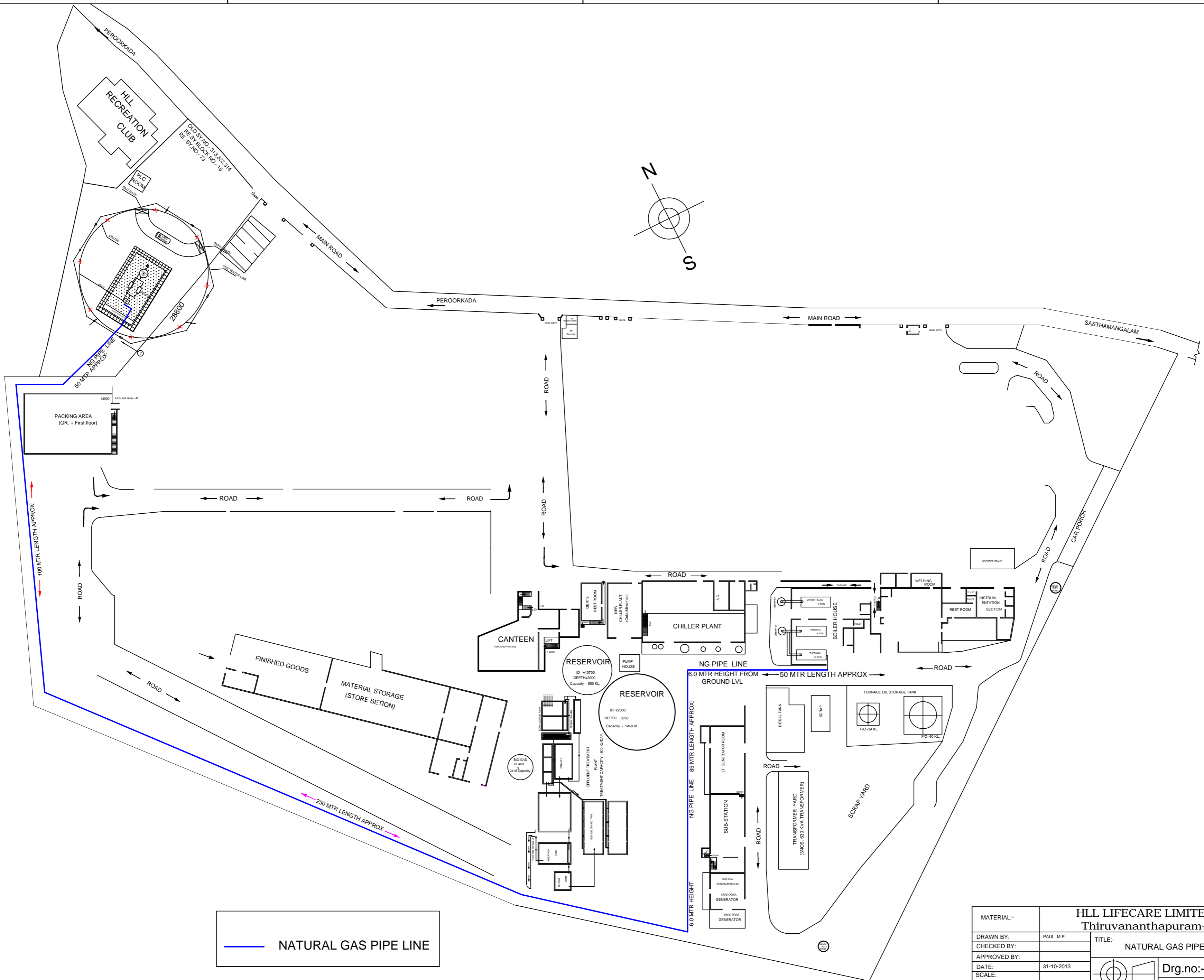
Dear Sir,

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.

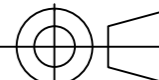
Yours faithfully,

**SIGNATURE OF THE BIDDER**

<b>SCHEDULE IV</b>					
<b>SCHEDULE OF QUANTITIES</b>					
<b>Sub:</b>	<b>Design, Supply, Fabrication, Installation, Testing &amp; Commissioning of the Natural Gas pipeline (as per IS:15663 Standards &amp; Specifications Part 1, 2 and 3) and Drawing Ref: HLL-J-067-00 enclosed at our Peroorkada Factory, Thiruvananthapuram - reg.</b>				
<b>SI No</b>	<b>Item Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Rate in Rs</b>	<b>Amount in Rs</b>
1	Design, Supply, Fabrication, Installation, Testing & Commissioning of following sizes of Carbon Steel Seamless Pipes (ASTM A 106 Grade B Schedule 40) of makes: TATA/JINDAL, for transport of Natural Gas from LNG Vaporizers to Boiler burner for Industrial purpose (including bends, elbows, reducers etc as required). The pipelines shall be provided with two coats of primer and two coats of enamel paint (Make: Asian/Berger) of approved color & shade, as instructed by HLL Engineer incharge.  <b>Design Criteria is as given below:</b> <u>Parameters of Natural Gas available At Vaporizer end:</u> Pressure: 5 bar (min), Gas Flow Rate: 750 Nm3/Hr (max), 625 Nm3/Hr (normal) <u>Parameters of Natural Gas required At Boiler side:</u> Pressure: 3 bar (min), Flow Rate: 711 Nm3/Hr (max)				
a)	1" dia	250	Mtrs		
b)	1 1/2" dia	250	Mtrs		
c)	2" dia	500	Mtrs		
d)	2 1/2" dia	250	Mtrs		
e)	3" dia	250	Mtrs		
2	Design, Supply, Fabrication, Installation & Commissioning of mild steel structural supports for the aforesaid pipelines as required, including two coats of primer and two coats of enamel paint (Make: Asian/Berger) of approved color & shade, as instructed by HLL Engineer incharge.	6000	Kg		
<b>TOTAL IN RS</b>					
<b>APPLICABLE TAXES</b>					
<b>GRAND TOTAL IN RS</b>					
<b>(IN WORDS)</b>					
I agree to execute the work as per the schedule as per the rates quoted by me as above					
					<b>CONTRACTOR</b>
<b>NOTE:</b>					
1	QUOTE SHOULD INCLUDE NECESSARY MS SUPPORTS AT 2 METRE INTERVALS OR AS REQUIRED, AT APPROPRIATE PLACES				
2	ALL MATERIAL FOR THE WORK INCLUDING PIPES, CONSUMABLES, TOOLS & TACKLES, WELDING SETS, PRIMER, PAINTS ETC. ARE IN THE SCOPE OF THE SUPPLIER.				
3	PAYMENT SHALL BE MADE AS PER ACTUAL MEASUREMENTS AT SITE. MEASUREMENTS FOR BENDS, REDUCERS, ELBOWS ETC. SHALL BE TAKEN ALONG THE CENTRAL LINE.				
4	THE GAS PIPELINES SHALL BE SUBJECTED TO HYDRAULIC LEAK TEST WITH 1.4 TIMES THE DESIGN PRESSURE FOR MINIMUM 4 HOURS DURING PRE-COMMISSIONING STAGE				
5	THE DESIGN SHALL BE DONE IN SUCH A WAY THAT NUMBER OF BENDS, ELBOWS ETC. SHOULD BE KEPT AS MINIMUM AS POSSIBLE TO AVOID PRESSURE DROP. DESIGN SHALL BE DONE AS PER PESO AND SMPV (U) RULES & GUIDELINES FOR NATURAL GAS PIPING SYSTEM, AS APPLICABLE				
6	THE STRUCTURAL SUPPORTS ARE REQUIRED TO KEEP THE NG PIPELINE AT A MINIMUM HEIGHT OF 0.5 METERS ABOVE THE GROUND LEVEL. HOWEVER, AT TWO PLACES, THE PIPELINE IS RAISED TO 6.0 METER HEIGHT ABOVE THE GROUND LEVEL, WITH SUPPORTING STRUCTURES FOR ROAD CROSSOVER, AS INDICATED IN THE DRAWING Ref: HLL-J-067-00.				
7	HLL DOES NOT BIND ITSELF TO ACCEPT THE LOWEST OR ANY TENDER, AND RESERVES TO ITSELF THE RIGHT TO ACCEPT THE BEST DESIGN CONSIDERING ITS OPERATIONAL ADVANTAGES/ECONOMY OF OPERATIONS/STATUTORY REQUIREMENTS.				
8	THE BIDDER SHALL VISIT AND INSPECT THE SITE BEFORE QUOTING FOR THE WORK				



— NATURAL GAS PIPE LINE

MATERIAL:-	HLL LIFECARE LIMITED. Thiruvananthapuram-5		NO.OFF.
DRAWN BY:	PAUL.M.P	TITLE:-	NATURAL GAS PIPE LINE AT PFT
CHECKED BY:		DATE:	31-10-2013
APPROVED BY:		SCALE:	
ALL DIMENSIONS ARE IN M.M.			Drg.no:- HLL-J-067-00 SHEET NO. 1 OFF. 1 REV:- 0 DATE:-