

**GOVERNMENT OF INDIA  
DEPARTMENT OF SPACE  
ISRO PROPULSION COMPLEX (IPRC)  
MAHENDRAGIRI**

**Tender for Supply of liquid Hydrogen in Cryogenic transport tankers**

**Bids to be submitted online**

**Tender No.: IPRC/PURGP2/IP202200049001 dated 08-06-2022**

## A. Tender Details

Tender No :	<b>IPRC/PURGP2/IP202200049001</b>
Tender Date :	<b>08-06-2022</b>
Tender Classification:	<b>GOODS</b>
Purchase Entity :	<b>PURGP2</b>
Centre :	<b>ISRO PROPULSION COMPLEX (IPRC)</b>

## Procurement of Supply of liquid Hydrogen in Cryogenic transport tankers

Kindly go through the instruction carefully and quote.

1. Foreign vendors are not permitted to quote.
2. Only Class-I and Class-II Local suppliers as per Make in India Policy are eligible to participate in the bid.
3. The percentage of local content should be specifically mentioned in the offer, without which it will be summarily rejected.
4. Preference will be given to Class-I Local Supplier and in their absence, Class-II Local Supplier will be considered.
5. MSME preference is applicable only against the claim of the manufacturer and production of documentary evidence by the manufacturers for the registration of particular item under MSME.
6. Last minute clarification on tenders will not be entertained.
7. This is an e-Tender. Hence Postal/Fax/Email tenders will not be accepted.
8. Acceptance of Guarantee / Warranty, PBG, SD & LD are mandatory. Quotations not accepting these conditions will not be considered
9. Please mention your Government E market Place (GeM) Seller ID for our reference.

### A.1 Tender Schedule

Bid Submission Start Date :	<b>08-06-2022 17:00</b>
Bid Clarification Due Date :	<b>16-06-2022 11:00</b>
Bid Submission Due Date :	<b>05-07-2022 14:00</b>
Bid Opening Date :	<b>05-07-2022 15:00</b>

## **B. Tender Attachments**

### **Technical Write-up/Drawings**

**Document : Terms and conditions**

**Document : Specification of LH2**

### **Instructions To Vendors**

#### **3. STANDARD TERMS AND CONDITIONS ( DOS PM:19)**

1.

a. Prices are required to be quoted according to the units indicated in the annexed tender form. When quotations are given in terms of units other than those specified in the tender form, relationship between the two systems of unit must be furnished.

2. Arbitration in the event of any dispute or difference arising under these terms & conditions or any condition contained in the Purchase Order or in connection with this Contract. (except as to any matter the decision of which is specially provided for by these conditions), the same shall be referred to the sole arbitration of the Head of the Purchase Office or of some other person appointed by him, and the dispute further processed in terms of the Arbitration & Conciliation Act, 1996. There will be no objection that the arbitrator is a Government Servant that he had to deal with matter which the Contract relates to or that in the course of his duties as Government Servant has expressed views on all or any of the matters in dispute or difference. The award of the arbitrator shall be final and binding on the parties of this Contract.

3. As per the Rule 144(xi) of General Financial Rule, 2017, any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the competent authority ie., Department for Promotion of Industry and Internal Trade (DPIIT).

Hence, Vendors or Agents of a Vendor (Indian or others) from a country sharing border with India shall submit copy of valid registration made with Department for Promotion of Industry and Internal Trade (DPIIT), Government of India along with the tender mandatorily, without which the offer will be treated as invalid.

4. b. Corrections, if any, in the quotation must be attested. All amounts shall be indicated both in words as well as in figures. When there is difference between the amount quoted in words and figures, the amount quoted in words shall prevail.

5. GST/ other duties/levies, where legally leviable and intended to be claimed, should be distinctly shown separately in the tender.

6. Guarantee: The stores offered should be guaranteed for a minimum period of twelve months against defective stores design, operation or manufacture. For defects noticed during the guarantee period, replacement/repair should be arranged free of cost within a reasonable period of such notification. In cases where our specifications call for a guarantee period more than 12 months specifically, then such a period shall apply

7. If the arbitrator is a person appointed by the Head of the Purchase Office, In the event of his denying or neglecting or refusing to act, or resigning or being unable to act, for any reason, shall be lawful for the Head of the Purchase Office either to proceed with the reference himself or to appoint another person as arbitrator in place of the outgoing arbitrator subject, as aforesaid, to the Arbitration and Conciliation Act, 1996, and the rules thereunder and any statutory modifications thereof for the time being in force shall be deemed to apply to the arbitration proceeding under the clause. The Arbitrator shall have the power to extend with the consent of the Purchaser and the Contractor the time for making and publishing the award. The venue of arbitration shall be the place as the Purchaser in his absolute discretion may determine. Work under the Contract shall, if reasonably possible, continue during Arbitration Proceedings.

8. If the arbitrator is the Head of the Purchase Office :

(i) In the event of his being transferred or vacating his office by resignation or otherwise, it shall be lawful for his successor in office either to proceed with the reference himself for to appoint another person as arbitrator, or In the event of his being unwilling or unable to act for any reason, it shall be lawful for the Head of the Purchase Office to appoint another person as arbitrator

9. Late Tenders will not be considered

10. Model Certificate for Tenders:

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered

11. Packing and Forwarding: The Contractor will be held responsible for the stores being sufficiently

and properly packed for transport by rail, road, sea or air, to withstand transit hazards and ensure safe arrival at the destination. The packing and marking of packages shall be done by and at the expense to the Contractor.

12. Payment terms are full payment within 30 days from the date of receipt and acceptance of material ordered. Our Bankers are State Bank of India, Mahendragiri.

13. Quotation should be valid for at least 120 days from the date of opening of the tender.

14. Specifications: Stores offered should strictly conform to Purchasers specifications. Deviations, if any, shall be clearly indicated by the tenderer in his quotation. The tenderer should also indicate the Make/Type number of the stores offered and provide catalogues, technical literature and samples, wherever necessary, along with the quotation. Test certificate, wherever necessary, should be forwarded along with supplies. Wherever options are called for in our specifications, the tenderer should address all such options, wherever specifically mentioned by us, and the tenderer could suggest changes to specifications with appropriate response for the same. Even in such case, the tenderer should state why he cannot meet our specifications and why he is suggesting the change.

15. Successful tenderer will have to furnish in the form of a Bank Guarantee or in any other form as called for by the Purchaser towards adequate security for the materials/property provided by the purchaser for the due execution for the Contract.

#### 16. TERMS AND CONDITIONS OF TENDER:

Price quoted should be on the basis of FOR IPRC, Mahendragiri or delivery at site

The Purchaser will not pay separately for transit insurance, and the risk and cost during transit shall be exclusively the responsibility of the Contractor and the purchaser shall pay only for such stores as are actually received in good condition in accordance with the Contract.

17. The Contractor shall at all times indemnify the Purchaser against all claims which may be in respect of the stores for infringement of any right protected by Patent, Registration or design or Trade Mark and shall take all risks of accidents or damage which may cause a failure of the supply from whatever causes arising and the entire responsibility for the sufficiency of all means used by him for the fulfilment of the Contract

18. The Purchaser reserves the right to accept or reject any quotation fully or partly without assigning any reason therefore.

19. The time for and the date of delivery of the stores stipulated in the Purchase Order shall be deemed to be the essence of the Contract and delivery must be completed not later than the date specified therein, and failure to do so, without adequate justification, may involve cancellation of the Contract at the discretion of the Purchaser.

20. Vendors may please note that in case of two-part tender, the price details shall be mentioned only in the price-bid template. If the price details either in part or full are indicated in the technical bid, the bid will be disqualified.

21. Where counter terms and conditions/printed or cyclostyled conditions of sale have been offered by the tenders, the same shall not be deemed to have been accepted by the Purchaser unless the Purchaser's specific written acceptance thereof is obtained

#### **4. Conditions for BIDDER FROM A COUNTRY WHICH SHARES LAND BORDER WITH INDIA**

1. Any false declaration and non-compliance of the above would be a ground for immediate rejection of offer or termination of the contract and further legal action in accordance with the laws.

2. As per the Rule 144(xi) of General Financial Rule, 2017, any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the competent authority ie., Department for Promotion of Industry and Internal Trade (DPIIT).

3. Hence, Vendors or Agents of a Vendor (Indian or others) from a country sharing border with India shall submit copy of valid registration made with Department for Promotion of Industry and Internal Trade (DPIIT), Government of India along with the tender mandatorily, without which the offer will be treated as invalid.

#### **4. Model Certificate for Tenders**

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered

5. Validity of Registration: Registration should be valid at the time of submission of bids and should be valid at the time of placement of order.

## 5. GENERAL TERMS AND CONDITONS

1. a) Facility of after sales service to be confirmed with details.
- b) Permanent Account Number (PAN) allotted by Income-Tax authorities shall be furnished with documentary proof. Otherwise, documentary proof for having applied for PAN should be provided. Also PAN should be in the name of Company/Firm, if quoted by the Company/Firm and in the name of Individual, if quoted by individual.
- c) GST No.
- d) PAN No.
- e) Local office in Tirunelveli / Nagercoil is preferable.

Note: (b) to (e) are applicable for Indian Companies only.

2. All amounts shall be indicated both in words as well as in figures. Where there is difference between amounts quoted in words and figures, amount quoted in words shall prevail.

3. GST where legally leviable and intended to be claimed should be distinctly shown separately in the tender. As per Notification No.45/2017 Central Tax(Rate) or Notification No. 47/17 Integrated TAX(Rate) of 14/11/17, We are eligible for availing Concessional GST@5% against certificate issued by an officer not below the rank of Dy. Secretary to Govt. of India

4. Guarantee / Warranty period as applicable shall be indicated, along with the quote. Guarantee/Warranty shall commence from the date of installation and acceptance of the complete equipment supplied under the contract/purchase order.

5. If an Indian agent submits bid on behalf of the Principal/OEM, the same Indian agent shall not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product

6. In a tender, either the Indian Agent on behalf of the Principal/OEM or Principal/ OEM itself can bid but both cannot bid simultaneously for the same item/product in the same tender.

7. In case of imported items (stores), Ex-Works/FOB/FCA prices should be indicated. In case of indigenous stores the quotation should be on FOR-Destination / Door delivery basis.

8. In case the vendor falls in the category of Small Scale Industries(SSIs), who are registered with NSI, Public Sector Undertakings (PSUs) and Micro & Small Enterprises (MSMEs) the same shall be mentioned in their quote for evaluation.

9. Indian Agents while quoting on behalf of their principals shall attach necessary authorization letter from their Principals along with the bid.

10. IPRC reserves the right to accept or reject any quotation in full or part thereof by recording the reasons.

11. IPRC shall not be responsible for failure of vendors in submitting bids online caused due to technical reasons at vendor end such as network or power failures, computer failure, internet-browser, mistakes / errors in filling the bids on line by vendor etc.

12. ISRO PROPULSION COMPLEX (IPRC) is exempted from payment of Customs Duty under Notification No. 50/2017-Customs dated 30.06.2017 and as amended by Notification No.5/18 Customs dt:25/1/18. For imported items IPRC will provide Customs Duty Exemption Certificate for availing Concessional CD and IGST.

13. Last minute request for the extension of the due date w.r.t. any technical issue at Vendors/Suppliers side will not be considered. You may submit your quotation online well in advance instead of waiting till the last date to ensure that Internet problem and network condition does not cause problem

14. LIQUIDATED DAMAGES: Delivery is the essence of the contract. Items shall be delivered within stipulated period. If delivery is delayed beyond the stipulated delivery period mentioned in the purchase order or any extension thereof, an amount equal to 0.5% per week shall be recovered, subject to a maximum of 10% of the order value shall be deducted from your bills due.

15. Offers sent through post, telegram, fax, e-mail, courier will not be considered. Partially completed / incomplete tenders shall not be considered.

16. Only authorized dealers/agents or their accredited representatives for original manufacturers have to submit the quotation with documentary evidence.

17. PAYMENT: 100% through RTGS within 30 days from the date of receipt and acceptance of items at our site is the normal payment for Indigenous supply. In the case of direct Import, normal terms of payment are by Sight Draft / Wire Transfer after receipt of items. However, other terms of payment like establishment of Letter of Credit may be considered by the Purchaser on such terms and conditions as may be agreed upon.

18. PERFORMANCE BANK GUARANTEE :

The Supplier shall guarantee the successful and satisfactory performance/commissioning of equipment/machinery under the conditions specified in the Purchase Order. As a performance security, the SUPPLIER shall furnish a performance bank guarantee (format enclosed) from Nationalized Bank/Scheduled Bank for an amount equal to the sum of 3% of the order value ensuring the due performance of equipment/machinery in accordance with all the specifications and terms specified in the Purchase Order herein valid for the warranty period. On due performance, the performance bank



guarantee shall be automatically cancelled and returned to the Supplier within 30 days after expiry of the Warranty period. The performance bank guarantee shall have claim period of six months.

19. SECURITY DEPOSIT : Security Deposit @ 3% of order value shall be submitted in the form of DD/FDR duly endorsed in favour of Accounts Officer, IPRC or by way of Bank Guarantee (in the prescribed format) within 20 days after receipt of order and valid up to the successful execution of the order.

20. The goods or material offered should be strictly as per our specifications. Change(s) in specifications, if any, should be clearly indicated by the supplier in his quotation. The supplier should also indicate make/type No. of the materials or equipment offered. Vague terms such as Best Indian, Best Indigenous and Imported make should not be used.

21. The offer should be valid for a minimum period of 120 days from the date of opening of the bids (Technical bid in case of 2-part tender).

22. The purchaser shall be under no obligation to accept the lowest or any tender and reserves the right of acceptance of the whole or any part of the tender or portions of the quantity offered and the tenderer shall supply the same at the rates quoted.

23. Wherever the tenderer is asked to submit sample for evaluation of tenders, the same shall be submitted along with your quote.

## C. Bid Templates

### C.1 Technical Bid - Supply of liquid Hydrogen in Cryogenic transport tankers

#### 1. Liquid Hydrogen (LH2): supply of Liquid Hydrogen in Cryogenic tankers

##### Item specifications for Liquid Hydrogen (LH2)

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Purity	99.995%	Yes / No / Explain		
2	Impurities Level: Oxygen + Argon	1 ppm (v)	Yes / No / Explain		
3	Nitrogen + Moisture + volatile Hydrocarbon	9 ppm (v)	Yes / No / Explain		
4	CO + CO2	1 ppm (v)	Yes / No / Explain		
5	Helium	39 ppm (v)	Yes / No / Explain		
6	para - hydrogen	95 %	Yes / No / Explain		

#### 2. Liquid Hydrogen (LH2): Transportation charges

##### Common Specifications (Applicable for all items)

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Scope:	Liquid Hydrogen (LH2) shall be supplied in 40 Cu.m. ISO liquid Hydrogen transport containers/tankers, owned by supplier or rental one.	Yes / No / Explain		
2	Quantity:	15.0 MT of Liquid Hydrogen in 40 Cu.m. containers/tankers. The ordered quantity may be supplied in 6 nos. (Max.) of LH2 transport containers/Tankers.	Yes / No / Explain		

3	Quantity Assessment:	The quantity of LH2 shall be computed by weighing the tanker at IPRC, Mahendragiri weigh Bride before and after unloading LH2 by keeping the same level of Liquid Nitrogen (LN2) in the shield (overflow level). IPRC will provide LN2 at free of cost for filling LN2 shield at Mahendrgiri.	Yes / No / Explain		
4	Quantity variation:	The total quantity of LH2 may vary $\pm 10\%$ of Purchase Order quantity. Payment shall be made only for the quantity computed by weighment.	Yes / No / Explain		
5	Transfer mode:	The transfer of LH2 shall be carried out by pressurization mode.	Yes / No / Explain		
6	Quality:	The quality of the product shall be confirmed by analyzing LH2 in the tanker after filling 40 m3 of LH2 by the supplier and the quality certificate indicating the actual value of each and every impurites shall be sent along with consignment. The quality of the supplied product shall also be confirmed in our laboratory at IPRC, Mahendragiri.	Yes / No / Explain		
7	LH2 fill and withdrawal interface:	LH2 fill and withdrawal interface on tanker/container shall be of 2" x 15" Cryenco bayonet joint.	Yes / No / Explain		
8	Delivery terms:	LH2 shall be supplied in 40 Cu.m. ISO liquid Hydrogen transport container/tanker, either owned by supplier or rental. LH2 shall be supplied at IPRC, Mahendragiri	Yes / No / Explain		

9	Details to be furnished by supplier along with quotation:	a) Details of company, ISO certification, if any shall be indicated with a copy of ISO certificate. b) Specification of LH2 with impurities. c) Details of LH2 container/tanker along with LH2 fill and withdrawal circuit. d) P&I drawing of container/tanker	Yes / No / Explain		
10	Retention of LH2 tankers/containers	LH2 tankers/containers will be retained at IPRC, Mahendragiri for a period of three days to carryout analysis and unloading.	Yes / No / Explain		
11	Purity	Greater than or equal to 99.995%	Yes / No / Explain		
12	Impurities Level: Oxygen + argon	Less than or equal to 1 ppm (v)	Yes / No / Explain		
13	Impurities level: Nitrogen + Moisture + volatile hydrocarbon	Less than or equal to 9 ppm (v)	Yes / No / Explain		
14	Impurities level: CO + CO2	Less than or equal to 1 ppm (v)	Yes / No / Explain		
15	Impurity level: Helium	Less than or equal to 39 ppm (v)	Yes / No / Explain		
16	Para Hydrogen content	More than 95%	Yes / No / Explain		

### Supporting Documents required from Vendor

1. Previous Purchase Orders as a proof for the supply of liquid Hydrogen
2. Compliance to Specification and Terms & conditions
3. Details of 40 cu.m. LH2 transport containers/tankers along with P&I
4. Copy of PESO approval for LH2 transportation in transport tankers/containers
5. Suppliers company details

5 additional documents can be uploaded by the vendor

## C.2 Commercial Terms / Bid

Sl. No.	Description	Compliance	Vendor Terms
1	PESO approval for liquid Hydrogen transportation in LH2 transport tankers/containers.	Yes / No / Explain	
2	Liquid Hydrogen shall be supplied in suppliers own or rental 40 Cu.m. ISO liquid Hydrogen transport tankers/containers only	Yes / No / Explain	
3	Liquid Hydrogen shall be supplied along with purity certificate as per given specification.	Yes / No / Explain	
4	Validity of Offer (specify)	Yes / No / Explain	
5	Delivery Period (specify)	Yes / No / Explain	
6	Delivery Terms: Normal delivery terms - FOR Destination (i.e., IPRC, Mahendragiri)	Yes / No / Explain	
7	Payment Terms: 100% within 30 days after receipt and acceptance of items (No advance payment is acceptable). Specify your Payment Terms.	Yes / No / Explain	
8	Security Deposit: The Supplier shall provide Bank Guarantee for an amount equivalent to the 3% (THREE PERCENT) of the total Order value towards Security Deposit for the due performance of the Purchase Order. The Security Deposit can be submitted in the form of Bank Guarantee or Fixed Deposit Receipt obtained from any Nationalized/ Scheduled Bank and it shall be kept valid for a period of sixty days beyond the date of completion of the Purchase Order. This Security Deposit will be returned to the Supplier only upon successful completion of all the contractual obligations or shall be adjusted/ forfeited against non-fulfilment of any of the contractual obligations. The Security Deposit shall be submitted within 30 days from the date of receipt of Purchase Order.	Yes / No / Explain	
9	Confirm: Conditions for BIDDER FROM A COUNTRY WHICH SHARES LAND BORDER WITH INDIA	Yes / No / Explain	

10	Liquidated Damages: The delivery period / completion period shall be the essence of the Purchase Order. If the Supplier fails to meet delivery date within the time specified above or any extension thereof, the Department will recover from the Supplier as Liquidated Damages (LD) a sum of 0.5% of the total order value for each calendar week of delay subject to a maximum of 10% of the total order value. Confirm your acceptance.	Yes / No / Explain	
11	Name, Address, Contact No, E-mail Id etc. (specify):	Yes / No / Explain	
12	Currency quoted (specify)	Yes / No / Explain	
13	Warranty / Guarantee Period: (specify)	Yes / No / Explain	
14	Taxes and other costs, if any: (specify). As per Notification No. 45/2017 - Central Tax and 47/2017-Integrated Tax (rate) dated 14/11/2017, we are eligible for concessional rate of GST @ 5%. Relevant Certificate shall be issued as and when required.	Yes / No / Explain	
15	Performance Bank Guarantee: Performance Bank Guarantee (PBG) for 3% of the order value shall be submitted along with your Invoice/prior to final payment. It shall be valid till the warranty/ guarantee period and shall have an additional claim period of 60 days.	Yes / No / Explain	
16	Only Class-I and Class-II Local suppliers as per Make in India Policy are eligible to participate in the bid.	Yes / No / Explain	
17	Percentage of Local Content for the offered item / items shall be specified	Yes / No / Explain	
18	MSME preference is applicable only against the claim of the manufacturer and production of documentary evidence by the manufacturer for the registration of particular item under MSME.	Yes / No / Explain	
19	Bank Details (State Bank of India, Mahendragiri, Tirunelveli (Dist) - 627 133) Details of your bank shall be furnished.	Yes / No / Explain	
20	Any other terms	Yes / No / Explain	

### C.3 Price Bid

Sl. No.	Item	Quantity	Unit Price	Currency	Total Price	Remark
1	Liquid Hydrogen (LH2): supply of Liquid Hydrogen in Cryogenic tankers	15.00 Tonnes		-		
2	Liquid Hydrogen (LH2): Transportation charges	15.00 Tonnes		-		