



भारत सरकार/Government of India
अंतरिक्ष विभाग/Department of Space
द्रव नोदन प्रणाली केंद्र
LIQUID PROPULSION SYSTEMS CENTRE
एच ए एल II स्टेज, 80 फीट रोड
HAL II STAGE, 80 FEET ROAD,
बेंगलूरु/BANGALORE-560 008.
फोन सं./Phone No.080 25037171
ई-मेल/Email: purchase@lpsc.gov.in



विज्ञा.संदर्भ.सं./Advt. Ref. No.: द्रनोप्रकेंबें/LPSCB/ईओआई/EOI/01-25

तिथि/Date: 08/10/2025

रुचि की अभिव्यक्ति/EXPRESSION OF INTEREST

अगली पीढ़ी के प्रमोचन यान (एनजीएलवी) के लिए ऐलुमिनियम मिश्रधातु नोदक टैंकों के आद्योपांत उत्पादन के लिए रुचि की अभिव्यक्ति।/ EXPRESSION OF INTEREST FOR END TO END PRODUCTION OF ALUMINIUM ALLOY PROPELLANT TANKS FOR NEXT GENERATION LAUNCH VEHICLE (NGLV)

निविदा की निर्धारित तिथियाँ/TENDER SCHEDULE

रुचि की अभिव्यक्ति प्रस्तुति की आरंभिक तिथि EOI Submission Start Date	:	08/10/2025 14:00
रुचि की अभिव्यक्ति प्रस्तुतीकरण की नियत तिथि EOI Submission Due Date	:	17/10/2025 14: 00
पूर्व-योग्यता मानदंड जारी करना (पीक्यूसी) Issue of Pre-Qualification Criteria (PQC)	:	21/10/2025 14:00
विक्रेताओं द्वारा पीक्यूसी को प्रश्न/स्पष्टीकरण Queries/ clarifications to the PQC by vendors	:	19/11/2025 14:00
यदि कोई हो तो, एलपीएससी द्वारा स्पष्टीकरण प्रस्तुत करना Submission of clarifications, if any by LPSC	:	03/12/2025 14:00
बोली-पूर्व बैठक की तिथि/Pre-bid Meeting date	:	10/12/2025 11:00
पीक्यूसी को प्रतिक्रिया प्रस्तुत करना/Submission of response to PQC	:	17/12/2025 14:00
प्रत्यर्थी द्वारा समग्र परियोजना योजना पर प्रस्तुतीकरण Presentation on overall project plan by respondents	:	24/12/2025 14:00
योग्य बोलीकर्ताओं का मूल्यांकन और लघु सूचीयन Evaluation & Short listing of qualified bidders	:	31/12/2025 14:00

सभी प्रस्ताव “क्रय व भंडार अधिकारी, प्रशासन बिल्डिंग, द्रव नोदन प्रणाली केंद्र, बेंगलूरु -560008” को पंजीकृत डाक/कूरियर/सीधे सुपुर्दगी के माध्यम से बोली प्रस्तुतीकरण की नियत तिथि या उससे पहले प्रस्तुत किए जाएँ।

All Proposals should be sent to “Purchase and Stores Officer, Administration Building, Liquid Propulsion Systems Centre, Bengaluru – 560008” through registered post/courier/direct delivery on or before bid submission due date.

हस्ताक्षरित/Signed

क्रय व भंडार अधिकारी/Purchase & Stores Officer

**Expression of Interest and Pre-Qualification Criteria
for End-to-End Production of
Aluminum Alloy Propellant Tanks for
Next Generation Launch Vehicle (NGLV)**

Section 1 :

REQUEST FOR EXPRESSION-OF-INTEREST (EoI)

End-to-End Production of aluminum alloy propellant tanks for Next Generation Launch Vehicle (NGLV)

1.0 PREAMBLE :

ISRO is venturing into the development of Next Generation Launch Vehicles (NGLV) with augmented payload capability for meeting national demands expected in forthcoming decades. The core objective is to establish a dependable, cost effectiveness and sustainable means of accessing space by adopting latest technologies in manufacturing and material processing.

The NGLV architecture requires large light Aluminium alloy propellant tanks with diameters upto 7m of varying lengths depending on the required propellant loading.

2.0 OBJECTIVE :

The **Liquid Propulsion Systems Centre (LPSC)**, a unit of ISRO under the **Department of Space (DoS)**, invites **Expressions of Interest (EoI)** from qualified aerospace manufacturing Indian industries, for the **end-to-end production of 60 Nos. of AA 2219 Aluminium Alloy Propellant Tanks over a period of 07 years** for NGLV programme.

LPSC seeks experienced industry / industrial partners with demonstrated capabilities in executing complex, multidisciplinary, turnkey aerospace manufacturing projects. Selected industry / industrial partners shall be responsible for the end-to-end production of propellant tanks and their delivery to the stage integration facility near to **SDSC-SHAR**, Sullurupeta, Andhra Pradesh, India for NGLV programme.

3.0 BRIEF SCOPE OF WORK :

3.1 Overview

The scope of work includes the **end-to-end production** of Aluminium alloy propellant tanks, comprising:

- Procurement of all required raw materials (e.g., forgings, rings, sheets, plates)
- Development and qualification of fabrication processes and related technologies.
- Manufacturing of parts and sub-assemblies.
- Inspection and Testing.
- Delivery near to **SDSC-SHAR**, Sullurupeta, Andhra Pradesh.

3.2 Facility Requirements

The contractor shall possess or establish the following essential facilities:

- **Welding Facilities :**

- a) Friction Stir Welding (FSW) / Plasma Arc Welding (PAW) / Gas Tungsten Arc Welding (GTAW) / Gas Metal Arc Welding (GMAW) for primary weld joints shall be considered subject to meeting minimum mechanical property requirements as specified in the Pre-Qualification Criteria (PQC) document.
- b) Manual and automated TIG welding machines for internal components and brackets.

- **Forming, Heat Treatment & Process Facilities :**

- a) Solution Heat Treatment and Ageing Furnaces.
- b) Stretch Forming facility to realise Petals / spin forming / or any requisite forming facilities for end domes.
- c) Rolling for Shells & Tube Bending machines.
- d) Chemical Milling & Surface Treatment Viz. Vapour Degreasing, De-oxidisation, Anodisation, pickling & Passivation.
- e) Neoprene masking / coating & Painting.

- **Machining Facilities :**

- a) Heavy-duty CNC Vertical Turning & Milling Centres (VTMCs) suitable for large size parts fabrication.
- b) 3-axis CNC Router/profile machine for milling sheets/ plates.
- c) General-purpose machines for fabrication of other various parts.

- **Inspection and Testing Infrastructure :**

- a) Advanced Inspection Facilities including NDT for weld joints.
- b) Proof Pressure Test with instrumentation for Strain gauges/Acoustic Emission monitoring, Digital Image Correlation (DIC) and Displacement measurement facility.

- **Expertise in material management.**

- **Expertise in development of tooling and fixtures.**

- **Expertise in development of fabrication processes & technology.**

3.3 Funding

No financial assistance will be provided by LPSC for the creation or augmentation of the above-mentioned facilities.

3.4 Procurement of Raw materials;

- Procurement of raw materials as per LPSC specifications viz. stainless steels and various temper conditions of alloy AA2219 in the form of rods, forging, rings, sheets/ plates, etc.
- Procurement of standard components shall be carried out exclusively through vendors from the approved supply chain of LPSC.
- Initial Two sets of raw material including standard parts for the realisation of propellant tanks as mentioned in Table 3.5 below will be supplied as FIM to the party. Subsequently, party has to procure raw materials for remaining sets.

3.5 Tank Sizes & Quantity :

Sl. #	Hardware		Size	Qty, Nos.
1.	I Stage	LCH4 Propellant Tank	Dia 6.5m x 18m Length	10
2.		LOX Propellant Tank	Dia 6.5m x 17m Length	10
3.	II Stage	LCH4 Propellant Tank	Dia 6.5m x 9.0 Length	10
4.		LOX Propellant Tank	Dia 6.5m x 7.0m Length	10
5.	III Stage	LH2 Propellant Tank	Dia 6.5m x 9.0m Length	10
6.		LOX Propellant Tank	Dia 6.5m x 5.0m Length	10
TOTAL				60

LCH4 – Liquid Methane; LOX – Liquid Oxygen; LH2 – Liquid Hydrogen

3.6 Transportation and Supply of Finished Propellant Tanks

The contractor shall ensure the safe and secure transportation of fully fabricated propellant tanks to the stage integration facility near to SDSC-SHAR, Sullurupeta, Andhra Pradesh.

3.7 Realisation of Transport Infrastructure

Party shall be responsible for the **design, fabrication, and realization of suitable containers and trailers** to accommodate the transportation of all variants of propellant tanks.

Transportation costs shall be quoted separately in the financial bid. These costs should cover all logistics and compliance requirements necessary for safe delivery.

4.0 OVERALL REALIZATION PLAN (07 years) :

- 4.1 Establishment of facilities in first two years.
- 4.2 A total realisation plan commencing from the 3rd year (from the date of Contract) is envisaged from the party for entire 60 tanks to be completed by 7th year.

5.0 BRIEF DESCRIPTION OF THE OVERALL BIDDING PROCESS:

The process to select a suitable Indian industry/consortium for this programme will follow a **two-stage approach** :

- i) Assessment of Pre-Qualification Criteria (PQC) through this Expression of Interest (EoI)
 - ii) Request for Proposal (RFP) to the technically qualified bidders of PQC.
- The scope of PQC is to evaluate and shortlist the technically qualified bidders.
 - The scope of the RFP would be to select a "bidder" among the short-listed bidders based on their techno commercial and competitive financial bid.
 - Following the completion of the RFP process, Indian industry either as a Sole Bidder or a Consortium would be selected to execute the envisaged production programme.

5.1 Assessment of PQC:

- Interested parties who meet the minimum eligibility criteria as per Section 6.0 can obtain the PQC document from LPSC.
- Bidders shall be required to pay non-refundable tender document fees, along with any applicable taxes thereon, for obtaining the PQC document.
- Bidders shall sign a Non-Disclosure Agreement (NDA) document in Rs. 200/- Non-Judicial Stamp Paper, as per the attached format.
- Queries/clarifications regarding the PQC must be submitted within four weeks from the date of EoI.
- Based on the response, an expert team from ISRO shall do the capability assessment based on the inputs provided through PQC document and through online / offline meetings as deemed necessary.
- On successful completion of the pre-qualification process, the technically qualified bidders would be shortlisted, based on the 'Evaluation and Selection Criteria' notified.

5.2 RFP Process:

- LPSC would issue the Request for Proposal (RFP) to the technically qualified bidders shortlisted as per Section 5.1.
- RFP would be a limited tender document (two part) that would outline:
 - Scope of work with detailed terms and conditions
 - Organization of work
 - Envisaged manufacturing processes
 - List of facilities/ infrastructure required
 - Manufacturing drawings
 - Bill of Materials (BOM) and applicable documentation for realization
- LPSC will organize a pre-bid meeting with the interested bidders to facilitate proper understanding of the requirements.
- Bid shall be submitted in 2 parts viz. (i) Techno commercial (non-priced) bid and (ii) Price bid. Upon evaluation of Techno-commercial bid and post-bid techno-commercial meeting, if necessary, LPSC will shortlist the 'Suitable Bidders' and place them on equal footing. LPSC will open the price bids of the Suitable Bidders, for further evaluation.
- LPSC reserves the right to split the order quantity between two parties either equally or 60-40 ratio, at L1 rates. Ratio will be decided during tender evaluation time.
- The contract will be signed by LPSC with the Selected Bidder for undertaking the end-to-end production of the NGLV Propellant Tanks including procurement of raw materials, standard parts and fasteners and final delivery near to SDSC, SHAR.
- Following shall be applicable for the contract awarded
 - **Liquidated Damages:** The delivery schedule is deemed to be the essence of this contract. Supplier need to complete the supply within the delivery schedule, failing which Liquidated Damages (LD) will be levied at the rate of 0.5% of the order value per week for the undelivered portion of the stores / services subject to a maximum of 5% of the order value. However, in case of inordinate delay i.e., delays of more than one-fourth (25%) of the total completion period, LD shall be applicable subject to a maximum of 10% of the total contract value (During development of first two set of tanks, LD is exempted for deliveries)
 - **Security Deposit:** The contractor shall submit a bank guarantee for Security Deposit (SD) for a sum equal to 3% of the total Contract price while commencing the work.

- **Warranty:** The items shall be warranted for satisfactory performance for a period of 12 months from the date of final acceptance of the system. The contractor shall submit a Performance Bank Guarantee (PBG) for a sum equal to 3% of the total contract price.

6.0 CRITERIA FOR OBTAINING PQC DOCUMENT

The Respondents to this EoI, have to meet the minimum eligibility criteria as described below to be able to participate in this bidding process.

Minimum Eligibility Criteria for PQC Respondents		
SI #	Description	Compliance by
1.	The Bidder shall have been operational for more than 5 (five) years up to the date of Response submission. A Certificate in this regard shall be issued by a practicing Chartered Accountant / Cost Accountant or by competent authority of the country of origin.	Sole Bidder/ Lead Member of Consortium
2.	The Bidder shall have experience of more than 5 (five) years (up to the date of Response submission) in Aerospace manufacturing domain. A Certificate in this regard shall be issued by a practicing Chartered Accountant/ Cost Accountant or by competent authority of the country of origin.	Sole Bidder / All Members of Consortium
3.	The Bidder shall have a valid Copy of the PAN certificate and a valid GST registration certificate.	Sole Bidder / Lead Member of Consortium
4.	<p>The Bidder shall have a sound financial track record as prescribed herein below:</p> <ul style="list-style-type: none"> i. Minimum annual average Turnover of INR 585 Crores per year for the past 3 (three) financial years (i.e., the financial year 2024-25, 2023-24, and 2022-23). ii. Positive net worth for two years in the past 3 (three) financial years (i.e., financial year 2024-25, 2023-24, and 2022-23) i.e. as per audited statements of accounts, the bidder should not have incurred financial loss during above said period. 	Sole Bidder / Lead Member of Consortium

Minimum Eligibility Criteria for PQC Respondents		
SI #	Description	Compliance by
	<p>iii. A Certificate in this regard shall be issued by a practicing Chartered Accountant/Cost Accountant.</p> <p>Note : In case of audited reports are not available for 2024-25, then three financial years from 2023-24, 2022-23, 2021-22 shall be submitted.</p>	
5.	<p>The Bidder shall be an Indian Entity under Indian Management and Control.</p> <ul style="list-style-type: none"> • Legal Entity: The Bidder shall be: (i) a company incorporated under the Companies Act, 2013 or (ii) a partnership firm established under the Limited Liability Partnership Act, 2008, (iii) a trust under the Indian Trusts Act, 1882, (iv) an association of persons or body of individuals incorporated under relevant statutes in India. • Foreign Investment: Any foreign investment into the bidding entity shall be as guided by the Foreign Exchange Management (Non-Debt Instrument) Rules 2019 and subject to the Bidder remaining an Indian Entity under Indian Management and Control. • A Certificate in this regard shall be issued by a practicing Chartered Accountant/Cost Accountant. 	Sole Bidder / Lead Member of Consortium
6.	The Bidder shall not have been blacklisted by any Central/State Government Department/Public Sector Undertakings / Central Government - funded organizations / State Government-funded organizations/World Bank, or other World Bank organizations or should not be under any illegal expression by the Government of India or by any government body of the country of origin.	Sole Bidder / All Consortium members
7.	There shall be no outstanding bankruptcy, judgment or pending legal action that could impair the operations of the Bidder as a going concern. Also, the Bidder / Consortium Members must be solvent. A Certificate in this regard issued by the concerned bank shall be produced.	Sole Bidder / All Consortium members

Minimum Eligibility Criteria for PQC Respondents		
SI #	Description	Compliance by
8.	In the case of a Consortium, the Bidder must submit a Joint Bidding Agreement signed by all the members of the participating organizations stating the name of the industry/member. The document shall also contain the envisaged responsibilities to be undertaken by each member of the consortium to the best of the knowledge available from the EOI/PQC. Bidder shall ensure that Consortium shall retain the same Members, unless otherwise permitted by LPSC and shall remain in existence during the Term.	All Consortium members
9.	The Bidder shall have valid AS 9100 Rev D & ISO 9001 : 2015 certification.	All Consortium members
10.	A Bidder shall not submit multiple bids through other Affiliates.	Sole Bidder / Lead Member of Consortium

If any one of the aforesaid minimum eligibility criteria is not met by the bidder/consortium, the bid will not be considered for Bid Evaluation.

7.0 PROCEDURE FOR OBTAINING PQC DOCUMENT

The interested parties are requested to sign the Non-Disclosure Agreement ("NDA") in Rs. 200/- Non-Judicial Stamp Paper, using the provided format and pay "INR1,000 (Rupees One Thousand only) plus 18% GST" against the document fee (Non-Refundable), in the form of a Demand Draft issued by any of the Nationalized / Scheduled Commercial banks in India in favour of "Accounts Officer -LPSC" payable at LPSC-Bengaluru, and submit within two weeks from date of EoI. Upon receipt of the payment and signed NDA, the PQC document for bidder pre-qualification, will be shared.

Contact details	
Address	Head Purchase & Stores Liquid Propulsion Systems Centre Indian Space Research organisation 80 ft Road, HAL 2 nd stage, HPO Bengaluru-560008, Karnataka
Contact	080 25037140/171
E-mail	purchase@lpscb.gov.in
website	www.lpsc.gov.in

8.0 RESPONSE TO EOI (AFTER ISSUE OF PQC DOCUMENT)

- 8.1 Respondents are advised to study all the instructions, Terms and Conditions, Forms, Requirements and other information provided in the EoI/PQC documents carefully. The submission of response to EoI/PQC shall be deemed to have been done after a careful study and examination of the EoI/PQC documents with full understanding of its implications.
- 8.2 DEPARTMENT reserves the right to request for any additional information and also reserves the right to reject the EoI/PQC response of any vendor, if in the opinion of DEPARTMENT, data is incomplete or if the vendor is found not qualified to satisfactorily execute the work.
- 8.3 Respondent shall bear all costs and expenses associated with preparation and submission of response to EoI/PQC document including post EoI/PQC clarification, discussion, technical and other presentations and LPSC shall in no case be responsible or liable for such costs regardless of the outcome of the EoI/PQC process. Also, the vendor shall not be entitled to claim any costs, charges and expenses incidental to or incurred by them in connection with the submission of the EoI/PQC response.
- 8.4 The response to this EoI/PQC should be full and complete in all respects. Failure to furnish all the information required by the EoI/PQC documents or submission of proposal not substantially responsive to the EoI/PQC documents to any respect will be at the risk of the respondent and may result in rejection of the document.
- 8.5 The response should be submitted as a proposal, as a collation of the following table of contents, in the enclosed format, clearly providing the details with documentary proof/supporting documents as Annexures. Provide the contents sheet of your response as given in section 8.6.
- 8.6 The respondents shall complete the Forms-I to IX in entirety, adhering to the specified formats, and submit their Responses. Any submissions received with incomplete or partially filled forms shall be deemed disqualified for consideration for this Evaluation.

Sl. No	Name of the form	Page No.
1	Covering Letter / Letter of Submission (Form-I)	
2	General details of the bidder (Form-II)	
3	General requirements (Form-III)	
4	Financial Strength (Form-IV)	
5	Experience in Pressure Vessel / Space Propellant Tankage Manufacturing & Aerospace Projects.	
6	Area of Expertise (Form-VI)	

Sl. No	Name of the form	Page No.
7	Availability of Essential Infrastructure for manufacturing of tanks (Form-VII)	
8	Declaration to Establish new facilities preferably near Sullurpetta, A.P with own funds (Form VIII)	
9	Declaration of Non-Blacklisting (Form-IX)	
10	Documentation Management (demonstration of software tools for Product Data Management (PDM))	NA
11	Detailed Project Plan (Provide detailed presentation)	NA
12	Vendor Management (demonstration of software tools for vendor management (ERP, Supply Chain Management – SCM, Vendor Management)	NA

- 8.7 Canvassing in any form in connection with EoI is strictly prohibited and submissions from such agencies are liable to be rejected.
- 8.8 This EoI document is not an offer and DEPARTMENT reserves the right to withdraw the invitation to EoI at any stage without assigning any reasons what so ever.
- 8.9 Addendum/Corrigendum, if any, to this EoI, will be hosted at our website, www.isro.gov.in. Respondents shall regularly monitor our website for any updates.
- 8.10 **Interaction meeting:** An interaction meeting shall be arranged through online or offline for EoI respondents in order to have a better understanding of the activities involved, clarify doubts, if any, and to visit site, if required. The interested respondents shall mandatorily to take part in the Pre EoI Bid interaction meeting.
- 8.11 Complete response to EoI must be received at LPSC to the address given below but not later than the date specified. Response to EoI in the prescribed format as per the terms & conditions mentioned in Attachment-1 shall be submitted in a sealed cover indicating Ref. No. and Due date for EoI. All the pages of the EoI submitted must be numbered and signed by the authorised signatory.
- 8.12 Indian vendors shall submit the EoI by post. LPSC shall not be responsible for non-receipt of EoI due to any type of delays and it shall be the sole responsibility of the Vendor to ensure delivery of the EoI to LPSC within the time fixed.

9.0 TENDER MILESTONES & TIMELINES

Tender milestones & timelines for the whole bidding process & award of contract is as per table-1 below;

Sl. No.	Milestone	Time line
1	Issue of PQC	T
2	Queries/ clarifications to the PQC by vendors	T + 4 weeks
3	Submission of clarifications, if any by LPSC (assuming no major change)	T + 6 weeks
4	Submission of response to PQC	T + 8 weeks
5	Presentation on overall project plan by respondents	T + 9 weeks
6	Evaluation & Short listing of qualified bidders	T + 10 weeks