NATIONAL ALUMINIUM COMPANY LIMITED (NALCO)

invites

EXPRESSION OF INTEREST (EOI)

from

Prospective Joint Venture Partners / Manufacturers / Investors/ Collaborators

for

Setting up of Production Facilities for Aluminium Fluoride (AlF_3: HBD & LBD)

EOI Document No: NALCO/BD/ST/2026/5805 **Dated: 21/09/2026**

EOI Submission by Date: 12/10/2026

National Aluminium Company Ltd.

NALCO Bhavan, P/1, Nayapalli,

Bhubaneswar, Odisha – 751013, India

Contents

1. Background & Objective 3

Backward Integration Initiative 3

2. Nalco's Indicative Requirement & Scope 4

Nature Of Collaboration Sought 4

3. Indicative Pre-Qualification Criteria 5

4. Submission Requirements & Format 5

Note On Submission Format 6

5. Evaluation & Shortlisting 6

6. Timeline 7

7. Terms & Conditions 7

7.1 Confidentiality & Nda 7

7.2 Clarifications 7

7.3 Disclaimer On No Commitment 7

7.4 General Conditions 7

8. Contact Details 8

Annexure-I: Detailed Specification – Aluminium Fluoride (AlF_3) 9

Annexure-II: Technical & Business Questionnaire 11

Declaration & Signature 11

1. Background & Objective

National Aluminium Company Limited (NALCO), a 'Navratna' CPSE of the Government of India, was established on 7th January 1981, with its registered office at Bhubaneswar, Odisha, India. It is one of India's largest integrated complexes in the aluminium value chain, having bauxite mining, alumina refining, aluminium smelting (including power generation) and coal mines.

- 6.825 million TPA Bauxite Mine and a 2.1 million TPA Alumina Refinery located at Damanjodi, Koraput district, Odisha.
- 0.46 million TPA Aluminium Smelter, a 1,200 MW Captive Power Plant and 4.0 million TPA Utkal D&E Coal Mines at Angul, Odisha.

As part of its green initiatives, NALCO has installed 198 MW Wind Power Plants at various locations across India and 1,020 kWp roof-top Solar Power Plants at its premises, contributing to its efforts towards carbon neutrality. In FY 2025-26, the Company achieved its highest ever revenue of Rs 17,843 crore and highest ever net profit of Rs 5,816 crore.

NALCO is currently expanding its Aluminium Smelter at Angul from its present capacity of 0.46 million TPA to approximately 0.96 million TPA through brownfield expansion, alongside a new 5th stream of the Damanjodi Alumina Refinery (adding 1.0 million TPA) and the upcoming Pottangi bauxite mine (adding 3.5 million TPA of mining capacity), in line with the Company's vision ‘To be a Premier and Integrated company in the Aluminium value chain with strategic presence in Mining both domestic & global, Metals and Energy sectors.’

Backward Integration Initiative

Aluminium fluoride (AlF_3) acts as a crucial electrolyte additive that lowers the melting point of the cryolite bath, optimizes electrical conductivity, and maintains thermal stability in the reduction cells. It’s used together with cryolite to lower the melting point and improve conductivity of the electrolyte bath in the Hall-Héroult smelting process. It is a critical, continuously-consumed input at every prebake aluminium smelter, including NALCO's plant at Angul.

As an initiative from NALCO’s Backward Integration and to reduce reliance on imports and support the Government of India's ‘Atmanirbhar Bharat / Viksit Bharat’ objective, NALCO proposes to explore the possibility of installing production facilities through

suitable Joint Ventures / strategic partnerships, on the lines of its backward integration initiatives for Bauxite, Coal, Power and Caustic Soda.

The purpose of this EOI is to identify prospective Joint Venture partners / manufacturers / investors / existing and potential suppliers, domestic and international, with proven manufacturing experience and interest in setting up production facilities with minimum offtake capacity matching NALCO's requirement, as detailed in this document. Responses to this EOI will help NALCO ascertain market interest and availability, and identified parties may subsequently be engaged for a detailed, binding Request for Proposal (RFP) / Joint Venture discussion/ feasibility for acquisition or setting up a plant facility altogether, as applicable.

2. NALCO's Indicative Requirement & Scope

NALCO's requirement of these raw materials will scale directly with its smelting capacity, which is being expanded from 0.46 million TPA to approximately 0.96 million TPA. The detailed product specifications presently applicable at NALCO's smelter are enclosed as Annexure-I to this EOI; NALCO's exact annual requirement, and any further technical refinements to the specifications, will be shared with qualified parties at the subsequent (RFP / detailed engagement) stage.

Nature of Collaboration Sought

NALCO seeks to engage with interested parties under one or more of the following indicative structures, and respondents are requested to indicate their preferred mode of collaboration:

- Joint Venture (equity partnership) with NALCO for setting up a production facility for **AlF_3**, preferably in the vicinity of NALCO's Angul Smelter Complex or at another suitable location, with equity participation.
- Long-term strategic partnership / investment linked to an assured offtake arrangement with NALCO.
- Any other collaborative structure (to be specified by the respondent) that furthers the objective of secure, cost-competitive supply.

3. Indicative Pre-Qualification Criteria

Prospective respondents are expected to broadly meet the following indicative criteria (final criteria to be confirmed by the Competent Authority prior to the RFP stage):

- Proven track record in manufacturing **AlF_3** of required industrial capacities.
- For long term supply arrangements, the party should have assured access to key feedstock raw materials required for production of Fluoride / **AlF_3** (e.g., Fluorosilicic Acid / Alumina Hydrate sourcing for HBD & LBD grade AlF_3).
- Party must submit supply credentials with respect to supply to Aluminium Smelters along with relevant LOA/LOI/Agreement/SAP Purchase Order.
    - **NB**: - The Experience / Completion Certificates shall be considered only when it bears the Name and Designation of Issuing Authority. This is only applicable for Experience/Completion Certificates issued after 30/06/2022.
- Financial capacity with relevant balance sheets, threshold net worth. and willingness to explore a Joint Venture / long-term strategic partnership with NALCO for setting up a production facility.
- All the bidders are required to submit the copies of audited financial statements like profit & loss accounts and balance sheet of the **FY 2023-24, 2024-25 & 2025-26** in support of the indicative qualifying criteria along with the bid.
    - **NB**: - The certificate issued by Chartered Accountant for any purpose must contain the UDIN number. In the absence of the same, concerned document will not be considered as a valid document and will not be used for bid validation.
- Demonstrated environmental compliance, including possession of valid Environmental Clearance (EC), Consent to Operate (CTO), and other applicable statutory / regulatory clearances for manufacturing operations.

Documentary evidence in support of the above, wherever available, should be submitted along with the EOI response.

4. Submission Requirements & Format

The EOI response must include the following, duly signed and stamped by the authorised signatory of the applicant:

- Completed Technical & Business Questionnaire as per Annexure-II (copy enclosed).
- **Company Profile** — including organisational structure, core areas of expertise, details of manufacturing facilities, and relevant project/client references.
- **Compliance Statement** — a point-wise statement confirming fulfilment of the indicative Pre-Qualification Criteria in Section 3, along with supporting documentary evidence.
- A brief note on the proposed nature of collaboration (JV / strategic partnership / investment / other) and indicative capacity, location and investment envisaged.

Note on Submission Format

- **Language**: All submissions shall be in English. Supporting documents in any other language must be accompanied by an authenticated English translation.
- **Units & Standards:** All technical data shall be provided in SI units. Any deviation must be clearly indicated with equivalent SI units.
- **Authorisation**: All pages of the submission must be signed and stamped by the authorised signatory of the applicant.
- **Completeness**: Submissions with incomplete information or without required documentary evidence are liable to be summarily rejected.
- **Confidentiality**: All information submitted will be treated as confidential and used solely for the purpose of evaluation of this EOI.

5. Evaluation & Shortlisting

- Initial evaluation will be based on the Questionnaire responses, eligibility, reference checks and commercial/technical disclosure.
- Qualified parties will be invited for further discussions and may be requested to provide presentations, additional technical/financial inputs, and site visits, as applicable.
- Evaluation will be based on parameters like Technical Capability, Input Raw Material Security, Financial Capacity, Environmental Compliance, Quality specifications, Years of previous business partnership with NALCO, ability to support project implementation etc.

6. Timeline

All submissions must be received within 21 days from the date of publication of this EOI, i.e. by **12/10/2026**. Late submissions will not be considered.

7. Terms & Conditions

7.1 Confidentiality & NDA

NALCO reserves the right to sign a mutual Non-Disclosure Agreement (NDA) with shortlisted respondents prior to sharing site-specific data or facilitating site visits and deeper technical/commercial discussions.

7.2 Clarifications

Any clarifications may be requested in writing to: CGM (Business Development) at the Email address: sugato.basu@nalcoindia.co.in | +916742303193, by date **12/10/2026**. NALCO may issue clarifications that will be shared with all prospective respondents.

7.3 Disclaimer on No Commitment

This EOI is for information gathering and shortlisting only. It does not constitute a commitment by NALCO to proceed with any respondent or to enter into any Joint Venture/agreement, nor to issue an RFP. NALCO reserves the right to accept/reject any or all submissions without assigning reasons.

7.4 General Conditions

- No EMD is required to be submitted by the respondent.
- NALCO shall not be liable for any mistake or error by the respondent in respect of the submission.
- NALCO will not be responsible for any loss to the respondents due to delay/cancellation etc. of this EOI process.
- The respondent shall bear all costs associated with the preparation or delivery of its EOI response.
- NALCO reserves the right to call for original supporting documents for verification, and to cross-check details furnished by the respondent from their previous clients; the respondent shall have no objection in this regard.

- NALCO will examine the EOI responses for completeness, whether the documents have been signed and are complete in all respects, and may seek feedback from other customers to authenticate submissions and performance.
- Mere submission of an EOI response shall not entitle automatic qualification/selection of the respondent for any subsequent Joint Venture / agreement.
- NALCO reserves the right to accept or reject any EOI response and to annul the EOI process and reject all responses at any time, without incurring any liability to the affected respondent(s) or any obligation to inform them of the grounds for such action.

8. Contact Details

Contact Person: CGM (Business Development)

National Aluminium Company Limited (NALCO)

NALCO Bhawan, Plot No. P/1, Nayapalli, Bhubaneswar – 751013, Odisha, India

Email: sugato.basu@nalcoindia.co.in | Mobile: +916712303193

Issued on: **21/09/2026**

ANNEXURE-I: DETAILED SPECIFICATION – ALUMINIUM FLUORIDE (ALF_3)

TECHNICAL SPECIFICATION				
Material: Aluminium Fluoride			**Type: High Density (HBD)**	
Sl. No.	**Parameters**	**Unit**	**Specification**	**Method Used**
1	Aluminium Fluoride (AlF3)	%	90.0 min	Chemical Method
2	Silicon Oxide (SiO2)	%	0.28 max	XRF/Chemical Methods
3	Iron Oxide (Fe2O3)	%	0.05 max	XRF/Chemical Methods
4	Sulphur Trioxide (SO3)	%	0.50 max	XRF/Chemical Methods
5	Phosphorous Oxide (P2O5)	%	0.05 max	XRF/Chemical Methods
6	Sodium Oxide (Na2O)	%	0.67 max	XRF/Chemical Methods
7	Loss on Ignition (LOI) at 300°C	%	1.00 max	Weight difference after ignition
8	Free Alumina	%	9.0 max	Calculation
9	Bulk Density	gm/cc	1.3 min	Weight/Volume of material poured into a cylinder
10	+ 20 Mesh	%	Nil	Standard sieves
11	- 325 Mesh	%	25.0 max	Standard sieves
12	Angle of Repose	deg	35.0 max	Standard method
13	Flowability	Sec	60 max	Time required for free flow of material through a hole of cone

XRF = X-Ray Fluorescence Spectrometer.

Note: The above specifications/figures are supposed to be for the Aluminium Fluoride as analysed and found at NALCO's site laboratory at Angul (to be verified within 30 days of receipt). Hence, while quoting, all allowances including apparatus, reagents etc., if any, must be taken into consideration.

TECHNICAL SPECIFICATION				
Material: Aluminium Fluoride			**Type: Low Density (LBD)**	
Sl. No.	**Parameters**	**Unit**	**Specification**	**Method Used**
1	Purity (AlF3)	%	95.0 min	Chemical Method
2	Silica (SiO2)	%	0.20 max	XRF/Chemical Methods
3	Phosphorous Oxide (P2O5)	%	0.02 max	XRF/Chemical Methods
4	Iron Oxide (Fe2O3)	%	0.05 max	XRF/Chemical Methods
5	Sulphur Tri Oxide (SO3)	%	0.5 max	XRF/Chemical Methods
6	Sodium Oxide (Na2O)	%	0.67 max	XRF/Chemical Methods
7	Loss on Ignition (LOI) at 300°C	%	1.00 max	Weight difference after ignition
8	Free Al2O3	%	9.0 max	Calculation
9	Bulk Density	gm/cc	0.75 min	Weight/Volume of material poured into a cylinder
10	Flowability	Sec	160 max	Time required for free flow of material through a hole of cone
11	Sieve Analysis: + 20 Mesh	%	Nil	Standard sieve
	- 325 Mesh	%	10% max	Standard sieve
Note: The above specifications/figures are supposed to be for the Aluminium Fluoride as analysed and found at NALCO's site laboratory at Angul (to be verified within 30 days of receipt). Hence, while quoting, all allowances including apparatus, reagents etc., if any, must be taken into consideration.				

ANNEXURE-II: TECHNICAL & BUSINESS QUESTIONNAIRE

Sl No	Details Sought	Response
1	Legal name	
2	Registered office	
3	Year established	
4	Website	
5	Parent company / group, subsidiaries	
6	Point of contact for EOI (name, email, phone)	
7	Product(s) of interest (AlF_3-HBD / AlF_3-LBD — tick all applicable)	
8	Current manufacturing location(s) and installed capacity for the product(s) of interest	
9	Process / technology employed (brief description)	
10	Years of continuous commercial production	
11	Major existing customers / reference clients (India & overseas), with contactable references with PO details 11(a) : Whether Supplied to NALCO during last 5 years and if so in what quantity with PO details.	
12	Certifications held (ISO 9001 / 14001 / 45001 or equivalent)	
13	Proposed nature of collaboration with NALCO (JV / equity partnership / long-term supply-cum-investment / technology transfer / other — please specify)	
14	Indicative capacity proposed to be set up / offered for NALCO's requirement	
15	Indicative investment / project cost estimate, if setting up a new facility	
16	Preferred location for the proposed facility (India — specify State/region — or overseas)	
17	Financial capability — indicative annual turnover and net worth for the last 3 years	
18	Raw material / feedstock linkages available, if any	
19	Any additional information / proposal	

Declaration & Signature

We confirm that the information furnished above is true and correct to the best of our knowledge and belief. We are interested in exploring collaboration with NALCO as detailed in this EOI and agree to the terms & conditions set out herein.

Signature: _____

Name & Designation: _____

Company Seal: _____

Date: _____