GAIL (INDIA) LIMITED



EXPRESSION OF INTEREST (EOI)

for

POTENTIAL CUSTOMERS FOR GREEN HYDROGEN

EOI DOCUMENT NO.: <u>GAIL/NEW</u> <u>DELHI/JV/HYDROGEN/EOI/2023</u>

DATE: 10th May 2023



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1. INTRODUCTION

GAIL (India) Limited ("GAIL") is India's leading Natural Gas Company with presence along the entire natural gas value chain comprising Exploration & Production, LNG imports, Gas Transmission & Marketing, Gas Processing, Petrochemicals, LPG Transmission and City Gas Distribution. GAIL is listed on the National Stock Exchange of India, the Bombay Stock Exchange and the London Stock Exchange (in the form of GDRs) with the market capitalization of more than Rs. 50,000 crores.

For additional information on GAIL, please visit https://www.gailonline.com

2. BRIEF ABOUT EOI

2.1. Government of India has launched the National Hydrogen Mission (NHM) with an aim to make India a hub for the production and export of Green Hydrogen, which is defined as hydrogen produced through electrolysis of water using renewable electricity or from biomass through thermochemical and biochemical routes.

The usage of Green Hydrogen will help India to achieve its emission goals under the Paris Agreement and reduce its import dependency on fossil fuels.

- 2.2. In line with its mission of "providing clean energy & beyond" and considering transformations taking place in the energy sector, GAIL is exploring opportunities in the renewable energy sector including Green Hydrogen. GAIL is setting up a 4.3 TPD Green Hydrogen production plant at GAIL Vijaipur, as it supplements GAIL's natural gas business with carbon-free fuel. Further, GAIL is also exploring more opportunities to set up Green Hydrogen units at other locations.
- 2.3. GAIL intends to identify suitable consumers who are interested to procure Green Hydrogen for their manufacturing process as a feed stock or Fuel or any other purpose, on a Long term basis.
- 2.4. In this backdrop, GAIL invites Expression of Interest (EOI) from any company in India (herein after called **Applicant**) for the sale of Green Hydrogen.

Pre-EOI submission	26 th May 2023, 3:00 PM
meeting Date & time	
Pre-EOI submission meeting link	https://teams.microsoft.com/l/meetup-
	join/19%3ameeting_YzY0NWM4ZjAtMTFkMC00MTBjLWEz
	MjQtYzNhMzgxZTlhMmYw%40thread.v2/0?context=%7b%2
	2Tid%22%3a%22288eb95d-efee-416f-b87b-
	0470a90e53e9%22%2c%22Oid%22%3a%22d12c7a6f-
	8bcd-4cd0-8ac2-6a65d4489151%22%7d
	Meeting ID: 486 892 127 710
	Passcode: 6CLsBf

2.5. Basic details of this EOI:



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EOI submission mode	Through E-mail: ashish.mittal@gail.co.in
Due date & time for submission of EOI	12 th June 2023, 5:00 PM
EOI Validity	6 months from the due date for submission of EOI

3. BRIEF SCOPE:

- 3.1. GAIL intends to set up the Green Hydrogen production unit as per the internal assessment of consumer demand.
- 3.2. The applicant shall provide the specifications of Green Hydrogen required at their battery limits in the format (Form II) provided. However, normal standard specification of Green Hydrogen is provided below, which may be further customized as per requirement by GAIL.

S. No.	Description	Value
1.	Hydrogen Purity	99.999 Vol%
2.	Moisture in Hydrogen	<5 PPMV
3.	Oxygen content in Hydrogen	<5 PPMV

Oxygen is also produced as a byproduct from the unit. Applicant may also provide willingness to purchase the produced oxygen in the format.

3.3. For reference the following information is being shared so that interested parties can understand the typical flow rates and utility and land requirement for a Green hydrogen Unit of 4.3 TPD capacity:

S. No.	Description	Value
1.	Hydrogen flow rate	2000 Nm3/hr
2.	Oxygen flow rate	1000 Nm3/hr
3.	Approximate power consumption	12 MW
4.	Approximate land requirement	2000 sq. mtr. (Excluding land requirement for power and utilities facilities)

3.4. Based upon the applicant's response, Price of Green Hydrogen will be derived after feasibility study of setting of Green Hydrogen Project at a particular location.

4. TECHNICAL CRITERIA

Minimum quantity of Green Hydrogen mentioned in EOI must be at least 400 kg/day.



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5. DETAILS REQUIRED FROM APPLICANT:

Applicant is required to provide the information as required in attached Form II.

6. SUBMISSION OF DOCUMENTS

Applicant should submit the following document(s) in support of their response to this EOI:

- 1. Covering Letter as per Form I
- 2. Applicant's Information & Technical Data as per Form II
- 3. Certificate of Incorporation of Applicant

7. GENERAL INSTRUCTIONS ON SUBMISSION OF EOI

- a. Each organization can submit only one bid either as a Party (in case of a single organization) or as a lead member of the consortium (in case of the Party being a consortium of two or three members). In case any organization submits more than one bid, all of its bids shall be rejected.
- b. The Authorized Person signing EOI document should be a Director on the Board / C&MD / Chairman / MD / CEO / CFO / CS or any person authorized by the Board of Applicant. Responses not signed by authorized signatory and / or stamped in the manner indicated in this EOI may lead to its rejection.
- c. To assist in the examination and evaluation of responses, GAIL may seek clarifications regarding any document / information submitted by the Applicant as part of its response to EOI.
- d. EOI is to be submitted through e-mail with covering letter addressed to the following. Email address for EOI submission is as follows.
 <u>ashish.mittal@gail.co.in</u>
 Ashish Mittal
 General Manager (Mktg. JV)
 GAIL (India) Limited
 GAIL Bhawan
 16, Bhikaji Cama Place, R K Puram
 New Delhi 110 066
 Phone No.: 011-26172580 Extn.2136
- e. Clarification, if any, can be obtained from General Manager (Mktg. JV) through Telephone: 011-26172580 Extn.2136 and E-mail: ashish.mittal@gail.co.in
- f. Intent of the EOI is to seek interest from the prospective applicants for procurement of Green Hydrogen for a location. Applicant shall also provide the details of land and utilities that can be spared for the Green hydrogen project. GAIL reserves the right to implement the Project after carrying out project feasibility



EXPRESSION OF INTEREST (EOI) POTENTIAL CUSTOMERS FOR GREEN HYDROGEN EOI DOCUMENT NO. GAIL/NEW DELHI/JV/HYDROGEN/EOI/2023

based on availability of land, number of consumers, contract demand, Utilities and renewable power availability. GAIL also reserves the right to terminate EOI process at any point of time without assigning reason.

- g. If the information submitted in the requisite format is found to be incomplete / incorrect / materially inconsistent / conditional, GAIL shall have the right to reject the EOI. Further, GAIL also reserves the right to reject any or all EOI received without assigning any reason.
- h. Submission of EOI doesn't provide the right to the parties for qualifying in the final bidding process. GAIL reserves right for qualification of a party based on their technical & financial credentials.



EXPRESSION OF INTEREST (EOI) POTENTIAL CUSTOMERS FOR GREEN HYDROGEN EOI DOCUMENT NO. GAIL/NEW DELHI/JV/HYDROGEN/EOI/2023

<u>FORM I</u>

FORMAT FOR THE COVERING LETTER

(To be submitted by the Applicant on its letterhead)

GAIL (India) Limited GAIL Bhawan 16, Bhikaiji Cama Place, R. K. Puram New Delhi-110 066 India

Subject: Expression of Interest for EOI DOCUMENT NO.: GAIL/NEW DELHI/JV/HYDROGEN/EOI/2023 dated _____

Dear Sir,

We, <u>(Name of the applicant)</u>, having read, examined and understood in detail the Subject EOI, confirm that neither we nor any of our Parent Company/ Affiliate/ Ultimate Parent Company has submitted response other than this response directly or indirectly in response to the aforesaid EOI.

- 1. We give our unconditional acceptance to the EOI, issued by GAIL, including its amendments and/or clarification, if any, the receipt of which is hereby acknowledged. In token of our acceptance to the EOI, the same have been signed & stamped by us and enclosed to the response.
- 2. We have submitted our response strictly as per the provisions and formats of the EOI, without any deviations, conditions and without mentioning any assumptions or notes.
- 3. We hereby expressly waive any and all claims in respect of EOI process. We confirm that there are no litigations or disputes against us, which materially affect our ability to participate or function under the obligations with regard to EOI.
- 4. The information submitted in our response is complete, strictly as per the requirements stipulated in the EOI and is correct to the best of our knowledge and understanding. We would be solely responsible for any errors or omissions in our response.
- 5. We confirm that all the terms and conditions of our response are valid for acceptance for a period of six (06) months from the response Deadline.

(SIGNATURE) (NAME AND DESIGNATION OF AUTHORISED PERSON)

Date: Place:

> (Seal of Company) 5 | P a g e



EXPRESSION OF INTEREST (EOI) IDENTIFICATION OF POTENTIAL CUSTOMER FOR GREEN HYDROGEN PRODUCED

EOI DOCUMENT NO. GAIL/NOIDA/PD/HYDROGEN/EOI/2023

FORM II

INFORMATION TO BE SUBMITTED BY APPLICANT ON ITS LETTERHEAD

- 1. Name of the Company / Lead Partner of Consortium / Affiliates / Representatives (strike off whichever is not applicable):
- 2. Legal status of the Company / Consortium / Affiliates / Representatives:
- 3. Brief description of the Company/Consortium/Affiliates/Representatives including details of its business groups/subsidiaries:
- 4. Status of Statutory compliance by company
- 5. Date of Incorporation:
- 6. Details of the contact person of applicant are furnished as below:
 - (i) Name:
 - (ii) Designation:
 - (iii) Mailing Address:
 - (iv) Contact number:
 - (v) Email id:
- Desired Quantity of Green Hydrogen to be procured by applicant iskg/Day & for a minimum period of years from the date of Commercial operation of the Unit.
- 8. Following information is to be provided by applicant

Sr No	Description	Input	
Part A :	· ·	· •	
1.	Whether land for setting up Green Hydrogen unit in	Yes /No	
	his premises/ near to his premises is available.		
2. Area of land, if available (Plot size details and			
	drawing/sketch, if available may be attached).		
3.	3. Whether spare handling capacity is available at		
	switchyard for sourcing of RE power for the project.		
4.	4. Whether such renewable power is on round the		
	clock basis / day time only.		
Part B :			
5.	Required quantity of Green Hydrogen (Nm ³ /day)		
6.	Required pressure of Green Hydrogen at consumer		
	end (kg/cm ² g)		
7.	Required quantity of Oxygen (Nm ³ /day)		
8.	Quality of Green Hydrogen		
	Permissible limit of Moisture in Green Hydrogen		
	(ppm)		
	Permissible limit of Oxygen in Green Hydrogen		
	(ppm)		
9.	Whether Green Hydrogen is required on an		
	Intermittent /24 X 7 basis. If intermittent, details of		



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EOI DOCUMENT NO. GAIL/NOIDA/PD/HYDROGEN/EOI/2023

	timings to be mentioned.	
10.	Availability of spare utilities at the battery limit of the	
	land/proposed area.	
	 Raw water (m³/h) 	
	 Cooling water (m³/h) 	
	• Nitrogen (Nm ³ /h)	
	• Instrument Air (Nm ³ /h)	

9. Documents to be enclosed:

Technical –

(i) Relevant documents / Information in support of Applicant's Nature of Business and Purpose of consumption of Green Hydrogen.

Financial –

Applicant should submit the following documents

- (ii) Copy of Audited Financial Results for the preceding three (03) financial years issued by Statutory Auditor / Chartered Accountant.
- (iii) Details of Financial capability of applicant issued by a Chartered Accountant
- (iv) Net Worth of the applicant should be positive as per the last audited financial statement

Document at (ii) above must be duly attested by a notary public with legible stamp.

(SIGNATURE)

(NAME AND DESIGNATION OF AUTHORISED PERSON)

(Seal of Company)

Date:

Place: