

Expression of Interest (EOI) to identify prospective customers to sale products from Bio Refinery set up by Assam Bio-Refinery Limited (50% JV company of NRL)w.e.f. December 2022 onwards

Numaligarh Refinery Limited(NRL) intends to invite Expression of Interest (EOI) from interested Domestic/international organizations to procure Bio-Refinery products from ABRPL (50% JV company of NRL) on long term basis.

1. About NRL :-

Numaligarh Refinery Limited (NRL) is a public sector undertaking, with shareholding of Oil India Limited (77.06%), Govt. of Assam (18.57%) and Engineers India Limited (4.37%). The refinery located at Golaghat District in Assam was commissioned in the year 2000 with a crude processing capacity of 3 million tonnes per annum (MMTPA) to process indigenous low sulphur crude oil of Assam. Product range includes LPG, Naphtha, Motor Spirit (MS), Aviation Turbine Fuel (ATF) Superior Kerosene Oil (SKO) High Speed Diesel (HSD), Raw Petroleum Coke (RPC) Calcined Petroleum Coke (CPC), Wax, Nitrogen, Mineral Turpentine Oil (MTO), Special Boiling Point Spirit (SBPS) and solid and Liquid Sulphur.

Numaligarh Refinery Limited (NRL) has joined hands with two Finnish companies viz M/s Fortum and M/s Chempolis to make a strategic entry into the field of producing ethanol, from cellulosic feedstock 'Bamboo' which is available in abundance in North-Eastern (NE) states of India. Assam Bio Refinery Pvt Limited (ABRPL) a joint venture company has been incorporated with three promoters viz: Numaligarh Refinery Limited (50% equity contribution) along with two other foreign companies Fortum (28% equity contribution) and Chempolis (22% equity contribution) from Finland respectively for setting up a Bio Refinery adjacent to the NRL Refinery at Numaligarh.

2. Description of Bio-Refinery products :-

The Bio refinery shall produce liquid Acetic Acid , Fufural and liquid Carbon Di-Oxide in addition to bio-Ethanol.

✓ **Acetic Acid :-**

Chemical Formula = CH_3COOH

Estimated production quantity/annum = 9600 MT

Acetic Acid is the most diverse industrial organic chemical and one of the most important commodities. Acetic Acid is a chemical reagent for the production of chemical compounds. The largest single use of Acetic Acid is in the production of vinyl acetate monomer (VAM), closely followed by acetic Anhydride and Ester production. The end use of Acetic Acid are in Food & Beverages, Coatings, Printing inks, Adhesives, Textiles & Clothing, Personal Hygiene products, Pharmaceuticals, Cosmetic products etc. We offer a sustainable and environment friendly non methanol based Acetic Acid suitable for multiple end uses.

✓ **Furfural :-**

Chemical Formula = $\text{C}_5\text{H}_4\text{O}_2$

Estimated production quantity/annum = 18400 MT

Furfural is an organic compound produced through the acid hydrolysis of agro based bio mass. Furfural is also an important chemical solvent and is majorly used for production of Furfuryl alcohol. We produce/shall produce bio based Furfural which can be used to make other furan chemicals for end use in industries such as Chemical, Pharmaceutical and Foundry.

✓ **Liquid Carbon Di-oxide :-**

Chemical Formula = CO_2

Estimated Production quantity/annum = 32000 MT

The End users of CO₂ include food & beverage sector, industrial and chemical end-users and oil & gas sector being few of them

3. Total Acetic Acid , Fufural and Liquid CO₂ production and specifications

Product	Quantity			Quality	Specification	Likely Available
	Tons/Hr.	Tons/Day	Tons/ Annum			
Acetic Acid	1.2	28.8	9600	99.8%	Purity:99.8% (w/w, Min) Moisture:0.15% (w/w, Max) Residue:0.01(w/w, Max) Formic Acid:0.15% (w/w, Max)	December,2022
Furfural	2.3	55.2	18400	99.0%	Purity:99.0% (w/w, Min) Moisture:0.2% (w/w, Max) Residue:0.5% (w/w, Max)	December,2022
Liquid Co ₂	4.0	96	32000	99.9%	Food Grade	December,2022

4. Submission of EOI:

- I. Interested parties are required to submit information complete in all respects as per the formats mentioned below ,
 - Annexure A- Acetic Acid
 - Annexure B- Furfural
 - Annexure C- Liquid Carbon di-oxide
- II. Prospective parties may submit their “Expression of Interest” in any one or more product(s) mentioned above. The interested bidders to submit the relevant format(s) duly signed latest by 5 PM of 27.12.2021 in a sealed cover or {scan copy submitted through Email } to:

Chief Manager (Marketing)
Numaligarh Refinery Limited
4th floor , NEDFI House
G. S. Road , Ganeshguri
Guwahati , Assam , India
Pin : 781006
E-Mail id: rajiv.changkakati@nrl.co.in ; Mobile : +916001581367

- III. Subsequently, NRL may notify through its website about the discussions meeting with respect to the EOI. For any clarification, you are requested to contact {+916001581367} and {rajiv.changkakati@nrl.co.in}.

5. Disclaimer:

- I. NRL has issued this Expression of Interest with the best intention to explore the market for interested buyers of Acetic Acid, Furfural and liquid CO₂. Any manufacturer(s), dealer(s), stockist(s) , supplier of Acetic Acid , Furfural and liquid CO₂ may apply in the standard format(s) enclosed in

Annexure A, Annexure B and Annexure C. This EOI does not guarantee conversion of this EOI into any definitive contractual agreements.

- II. It is also agreed that NRL in its sole discretion, may reject any and all proposal made by respondent(s), may change the conditions relating to the EOI or cancel this EOI at any time without assigning any reason.
- III. Prospective respondent(s) acknowledge and agree that response to the EOI is purely voluntary action on their part and for any expenditure on this account shall be borne by the respondent(s).
- IV. NRL will have no obligation or liability to the respondent(s) in the event of cancellation of EOI.

Note: Respondents are requested to keep themselves updated with the website on regular basis for any addition / deletion / modification / clarification or notification in respect of this, at EOI stage. No separate notification will be issued in any other media.

NRL

ANNEXURE A – Acetic Acid - Details of the respondent

1. Name of Company :

2. Address details (1):-

(address of prime place of business Head office/registered office/corporate office/ Marketing office etc.)

Village/locality:-

Street & House no. :-

Postal code :-

City :-

State :-

Country

Postal code:-

3. Address details (2):-

(address of the establishment where physical delivery of materials is required) (leave blank if it is same as same as address 1) (insert all locations (if available))

Village/locality:-

Street & House no. :-

Postal code :-

City :-

Sate :-

Country

Postal code:-

4. Contact details :-

Name of the contact person(s):-

Phone/Mobile no. :-

E-mail id :-

5. Documents (please enclose copies of relevant documents):-

TIN No.

PAN No. :-

GST registration no. and address:-

Last three years net worth of the company:-

Last three years turnover:-

Statutory approvals from authorities for storage and handling **Acetic Acid** .

6. Type of company : Manufacturer/Dealer/Stockist/Trader/any other

(enclose company registration document)

For Manufacturer using Acetic Acid as raw material:

- Annual Quantity of Industrial grade Acetic Acid required at present (MT):-
- Present source(s) of supply:-
- Present utilisation of Acetic Acid:-
- Present average purchase price (exclusive of GST and freight) of Acetic Acid per MT :-
- Additional requirement of Acetic Acid as raw materials in future, if any.

For Dealer/stockist/Trader

- Present storage capacity of Acetic Acid:-
- Present trading volume in terms of MT/annum:-
- Present source(s) of supply:-
- Present average purchase price (exclusive of GST and freight) of Acetic Acid per MT :-

7. Requirement of Acetic Acid

- Proposed quantity of Acetic Acid to be sourced from NRL (MT/annum):-
- Utilisation of proposed quantity of Acetic Acid required :-
- Transportation from ex-ABRPL gate to be arranged by customer :- Yes/No

ANNEXURE B – Furfural - Details of the respondent

1. Name of Company :

2. Address details (1):-

(address of prime place of business Head office/registered office/corporate office/ Marketing office etc.)

Village/locality:-

Street & House no. :-

Postal code :-

City :-

State :-

Country

Postal code:-

3. Address details (2):-

(address of the establishment where physical delivery of materials is required) (leave blank if it is same as same as address 1) (insert all locations (if available))

Village/locality:-

Street & House no. :-

Postal code :-

City :-

Sate :-

Country

Postal code:-

4. Contact details :-

Name of the contact person(s):-

Phone/Mobile no. :-

E-mail id :-

6. Documents (please enclose copies of relevant documents):-

TIN No.

PAN No. :-

GST registration no. and address:-

Last three years net worth of the company:-

Last three years turnover:-

Statutory approvals from authorities for storage and handling **Furfural**.

7. Type of company : Manufacturer/Dealer/Stockist/Trader/any other
(enclose company registration document)

For Manufacturer using Furfural as raw material:

- Annual Quantity of Industrial grade Furfural required at present (MT):-
- Present source(s) of supply:-
- Present utilisation of Furfural :-
- Present average purchase price (exclusive of GST and freight) of Furfural per MT :-
- Additional requirement of Furfural as raw materials in future, if any.

For Dealer/stockist/Trader

- Present storage capacity of Furfural :-
- Present trading volume in terms of MT/annum:-
- Present source(s) of supply:-
- Present average purchase price (exclusive of GST and freight) of Furfural per MT :-

8. Requirement of Furfural

- Proposed quantity of Furfural to be sourced from NRL (MT/annum):-
- Utilisation of proposed quantity of Furfural required :-
- Transportation from ex-ABRPL gate to be arranged by customer :- Yes/No

ANNEXURE C – liquid Carbon Di-oxide - Details of the respondent

5. Name of Company :

6. Address details (1):-

(address of prime place of business Head office/registered office/corporate office/ Marketing office etc.)

Village/locality:-

Street & House no. :-

Postal code :-

City :-

State :-

Country

Postal code:-

7. Address details (2):-

(address of the establishment where physical delivery of materials is required) (leave blank if it is same as same as address 1) (insert all locations (if available))

Village/locality:-

Street & House no. :-

Postal code :-

City :-

Sate :-

Country

Postal code:-

8. Contact details :-

Name of the contact person(s):-

Phone/Mobile no. :-

E-mail id :-

6. Documents (please enclose copies of relevant documents):-

TIN No.

PAN No. :-

GST registration no. and address:-

Last three years net worth of the company:-

Last three years turnover:-

Statutory approvals from authorities for storage and handling **liquid Carbon Di-oxide.**

7. Type of company : Manufacturer/Dealer/Stockist/Trader/any other

(enclose company registration document)

For Manufacturer using liquid Carbon Di-oxide as raw material:

- Annual Quantity of liquid carbon di-oxide required at present (MT):-
- Present source(s) of supply:-
- Present utilisation of liquid carbon di-oxide :-
- Present average purchase price (exclusive of GST and freight) of liquid Carbon Di-oxide per MT :-
- Additional requirement of liquid Carbon Di-oxide as raw materials in future, if any.

For Dealer/stockist/Trader

- Present storage capacity of liquid Carbon Di-oxide:-
- Present trading volume in terms of MT/annum:-
- Present source(s) of supply:-
- Present average purchase price (exclusive of GST and freight) of liquid Carbon Di-oxide per MT :-

9. Requirement of liquid Carbon Di-oxide

- Proposed quantity of liquid Carbon Di-oxide to be sourced from NRL (MT/annum):-
- Utilisation of proposed quantity of liquid Carbon Di-oxide required :-
- Transportation from ex-ABRPL gate to be arranged by customer :- Yes/No