MANGALORE REFINERY & PETROCHEMICALS LIMITED

MANGALORE, KARNATAKA (INDIA)

(EOI. No. MRPL/2016/Projects/EOI/01)

EXPRESSION OF INTEREST

FOR

TECHNOLOGY PROVIDERS / LICENSORS FOR SETTING UP AND OPERATION & MAINTENANCE OF PLANT FOR CONVERSION OF

LIGNO-CELLULOSIC BIOMASS TO ETHANOL
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Mangalore Refinery & Petrochemicals Limited
(A Subsidiary of ONGC Ltd.)

INVITATION
FOR
EXPRESSION OF INTEREST (EOI)
FOR
Technology Providers / Licensors for Setting up and Operation & Maintenance of plant
for conversion of LIGNO-CELLULOSIC BIOMASS TO ETHANOL
FOR
M/s MANGALORE REFINERY AND PETROCHEMICALS LIMITED,
KARNATAKA

(EXPRESSION OF INTEREST Ref. No.: MRPL/2016/PROJECTS/EOI/01)

1.0 INTRODUCTION:

1.1 Mangalore Refinery & Petrochemicals Limited (MRPL), a subsidiary of Oil and Gas Corporation Limited and a Schedule “A” Company is a Grass root Crude Oil Refinery located at Mangalore, a coastal city of Karnataka (India). It is involved in the business of Refining and Marketing of Petroleum Products.

MRPL’s Refining capacity is 15 MMTPA and is around 7% of India’s total Refining Capacity during the year 2015-16.

1.2 M/s MRPL is planning to set up a new plant for conversion of LIGNO-CELLULOSIC BIOMASS TO ETHANOL

1.3 M/s MRPL invites expression of interest for “Technology Providers / Licensors for setting up and Operation & Maintenance of plant for conversion of LIGNO-CELLULOSIC BIOMASS TO ETHANOL” from competent agencies with sound technical and financial capabilities fulfilling the Qualification Criteria stated in paragraph 5.0 below.

2.0 PURPOSE:

Expression of Interest (EOI) is invited from all the interested Technology Providers / Licensors (hereinafter called “The Bidder”) with requisite competence, experience, infrastructure & finance, as enumerated in the EOI document; for setting up and operation and maintenance of Ligno-Cellulosic Ethanol Production Plant in Karnataka State, India in collaboration with MRPL; by using domestic agri-based lingo-cellulosic feedstock.

The interested parties may submit their proposals for providing their technology details for setting up & operation and Maintenance of a Ligno-Cellulosic Ethanol Production facility at a location in Karnataka, India.

The Bidder shall clearly understand that participating in the EOI and showcasing of their Technology to MRPL shall not be construed as acceptance of the same by MRPL.

MRPL reserves the right to accept or reject any of the technologies / solutions offered by the participating Bidder without assigning any reasons, whatsoever.

3.0 SCOPE OF WORK:

Mangalore Refinery and Petrochemicals Ltd invite Expression of Interest (EOI) for Technology Supply, Basic Design, Commissioning, Operation and Maintenance by the Bidder or by an authorized Agency of the Bidder or in collaboration with MRPL. The project should ensure Ethanol availability on sustained basis.
At present the ownership / share out of Plant / Operation / Supplies of Biomass have not been frozen. Therefore the Bidder can consider various options while bidding / suggest options.

MRPL shall offer/ arrange land for the Plant. However, the Bidder must indicate the approximate area of the land required for setting up of the Plant.

The Bidder basis their experience may indicate the suitable Location of the Plant in the Karnataka State for optimizing the Raw Material cost.

The Bidder will be responsible for providing process technology, preparation of basic engineering, assistance during Detailed Engineering, Commissioning, Operation & maintenance of the plant (including manpower, equipment’s required for the same), meeting the product quality and provide corresponding Performance guarantee to MRPL.

It is currently envisaged that after setting up of the plant; operation / maintenance of the plant and meeting product quality will be undertaken by the same Technology Provider for a period of Two years from the date of commissioning of the Plant. MRPL, at its discretion may decide to enter into further Operation and Maintenance Contract with the Technology Provider or choose any other option regarding operation & maintenance, as deemed fit.

The Ethanol will be supplied to MRPL or any other OMC in Karnataka State (as per advice from MRPL) for blending with Petrol.

The Bidder may indicate optimum capacity of the Plant. MRPL is looking for a Plant with capacity to produce Ethanol in the range of 50 KL to 150 KL per day; however, exact capacity will depend upon the optimum plant sizing, biomass availability, economic movement of Ethanol for blending, taxes and other factors. Bidder may indicate their capacity/ (ies) as per the economic size of the Plant.

### 4.0 SALIENT FEATURES OF THE EOI ARE AS FOLLOWS:

- **a. EOI No.** : MRPL/2016/PROJECTS/EOI/01
- **b. EOI on Website.** : From 02.01.2017 To 13.02.2017
- **c. Closing date for submission of EOI** : Upto 17:00 Hrs. (IST) on 13.02.2017
- **d. Validity of EOI Offers** : Upto 12.08.2017

### 5.0 TECHNICAL INFORMATION SOUGHT FOR:

**Technical Criteria:**

The Bidders must confirm in their response that they meet each of the following criteria:
| **Experience & expertise** | • The Bidder should have at least one installed and operationalized demonstration scale plant. The Plant should have a minimum feed capacity of 1TPD.  
OR  
• The Bidder should have been a technology provider and provided services for operating Ligno-cellulosic plants which may be owned by other parties.  
OR  
• Bidder can be an Engineering Company with Process Design expertise in case the technology is sourced from a licensor and BEDP is done by the Bidder.  
OR  
• Bidder can be an Engineering company with BEDP sourced from a licensor.  
OR  
• Bidder can be Licensor with experience of BEDP preparation.  

Bidder should mention quantity of Biomass, chemicals & Enzymes consumed, Ethanol & other by products produced etc. annually during any of the last three completed years. |
| **Technology** | The process technology should provide an end to end solution for producing ethanol from Ligno-cellulosic Biomass at sustainable cost. In order to extend the operability round the year, the process technology should utilize multiple feedstock; thus the technology should be feedstock agnostic.  

If the technology has any Enzyme / Chemical requirement, The enzyme should be proven and to have obtained guarantees from the enzyme supplier.  

As far as possible, the technology should provide complete solutions including utilization of major by-products, Generation of power for internal use, export power & recycling of water etc.  

Preferably, the technology should not generate effluent (i.e. zero discharge) and / or a proper treatment solution should be provided to manage the minimal discharge, green compliance etc.  

Finally, Product must meet Anhydrous Denatured Ethanol meeting present IS 15464:2004 specification & its revisions from time to time. The technology should be flexible to scale up. |
| **Holiday/Blacklisted status** | The Bidder must not have been debarred/ blacklisted by any Central/State Govt. department, agency, PSUs/ Institution/ Agencies/ Autonomous organization. |
MRPL may decide to visit Technology Supplier’s Plant, seek details as required and check the operation as well as Commercial viability. The Technology Provider will permit such visit and make available necessary data/details, except those which are patented or are not available for disclosure.

MRPL will be engaging a consultant for evaluation of the data provided by the bidders, who will also be preparing a feasibility report for MRPL. Bidders are also required to provide data sought by the consultant for evaluation.

Rules applicable to Consortium, Indian Arm of Foreign Bidder are given at the end of the EOI.

6.0 GENERAL

6.1 EOI not received by the due date and time shall be rejected.
6.2 EOI shall be sent through e-mail only, with covering letter as per Instructions to the Bidders.
6.3 **Bidders shall ensure that the size of attachments shall not exceed 18 MB.**
6.4 Hard copies of the offers shall NOT be submitted.
6.5 MRPL shall not be responsible for any expense incurred by bidders in connection with the preparation & delivery of their documents, site visit and other expenses incurred during bidding process.
6.6 Bidder submitting his proposal should not be under liquidation, court receivership or similar proceedings.
6.7 MRPL reserves the right to reject any or all the EOI without assigning any reason.
6.8 Clarifications, if any, can be obtained through Telephone No., Fax No and e-mail as below:

(i) Nirankar Singh  
Phone No.: +91-824-2883451  
Email: nirankar_singh@mrpl.co.in  
Fax: +91-824-2271204

(ii) Jimmy Jai Singh Malik  
Phone: +91-824-2882215  
E-mail: jimmy_malik@mrpl.co.in
# II. INSTRUCTIONS TO BIDDERS

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### B  PREPARATION OF EOI

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<tr>
<td>6.0</td>
<td>OWNER’S RIGHT</td>
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A  GENERAL

1.0  INTRODUCTION

1.1  MANGALORE REFINERY AND PETROCHEMICALS LIMITED (MRPL), a subsidiary of Oil and Natural Gas Corporation Limited has existing Refinery Facilities at Mangalore, Karnataka (India).

1.2  MRPL invites EOI, the entire work covered under the Bidding Documents (hereinafter referred as “WORK”).

2.0  COST OF EOI

2.1  All direct and indirect costs associated with the preparation and submission of EOI (including clarification meetings and site visit, if any), shall be to Bidder’s account and MRPL will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the EOI process.
B PREPARATION OF EOI

3.0 LANGUAGE OF EOI
3.1 The EOI and all correspondence incidentals to and concerning the EOI shall be in the English Language. For supporting documents and printed literature submitted in any other language, an equivalent English Translation shall also be submitted. Responsibility for correctness in translation shall lie with the Bidder. In case of any conflict, for the purpose of interpretation of the EOI, the English Translation shall govern.

4.0 OWNERS RIGHT TO ACCEPT / REJECT
4.1 MRPL reserves the right to accept or reject any EOI and to annul the bidding process and reject all EOI at any time without thereby incurring any liability to the affected Bidder) or any obligation to inform the affected Bidder of the grounds for the MRPL's action.

5.0 FORMAT, SIGNING AND SUBMISSION OF EOI PROPOSAL
5.1 The Bidder shall prepare the EOI proposal and submit the offer through soft copy only, along with covering letter.
5.2 Bidders shall ensure that the size of attachments shall not exceed 18 MB.
5.3 The EOI shall be signed by bidder or person(s) authorized to sign on behalf of the bidder. All pages of EOI shall be stamped and initialed by person(s) signing the EOI.
5.4 The EOI shall contain no interlineations, erasures or overwriting. All corrections/ cuttings/ alterations shall be signed in full by the Bidder with date. Numerical figures shall be written both in figures as well in words.
5.5 The Bidder shall submit the soft copy of EOI proposal to the following Email ID’s nirankar_singh@mrpl.co.in / jimmy_malik@mrpl.co.in.
5.6 Hard copies of the offers shall NOT be submitted.

6.0 OWNER’S RIGHT
6.1 MRPL reserves its right to call for original of the supporting document for verification, if so deemed fit and also to cross check for any details as furnished by the Bidder from their previous Clients / Consultants etc. Bidder shall have no objection whatsoever in this regard and shall facilitate to obtain the same.
III. FORMAT FOR EOI SUBMISSION

Table 1: Category of the Bidder

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Single entity</th>
<th>JV</th>
<th>Consortium</th>
<th>Others (pl. specify)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes/ No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Applicant Details

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exact Name of the Applicant/ Firm</td>
<td></td>
</tr>
<tr>
<td>Name of Contact Person</td>
<td></td>
</tr>
<tr>
<td>Designation</td>
<td></td>
</tr>
<tr>
<td>Nature or legal status of the Firm</td>
<td></td>
</tr>
<tr>
<td>Details of Registration document of the Firm</td>
<td>(provide details &amp; enclose copy)</td>
</tr>
<tr>
<td>Registered Address of the Applicant/ Firm</td>
<td></td>
</tr>
<tr>
<td>Tel No.</td>
<td></td>
</tr>
<tr>
<td>Mobile No.</td>
<td></td>
</tr>
<tr>
<td>E Mail Address</td>
<td></td>
</tr>
</tbody>
</table>

In case of consortium, please provide the details of lead member and also details of the participating firms

Table 3: Human Resource Strength

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Particulars</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Organizational structure</td>
<td>(Please provide a chart as annexure if applicable)</td>
</tr>
<tr>
<td>2</td>
<td>Key persons to be assigned on the proposed project - designation, experience, capabilities</td>
<td></td>
</tr>
</tbody>
</table>

In case of consortium, please provide the details of lead member and also details of the
participating firms.

Table 4: Technology Information

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Operational Strength</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Detailed write up on the technical parameters &amp; other details</td>
<td>Please provide copies of relevant documents</td>
</tr>
</tbody>
</table>

In case of consortium, please provide the details of lead member and also details of the participating firms

Table 5: Assessment on ongoing projects

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<tr>
<th>Sl. No.</th>
<th>Operational Strength</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Details of at least one of the similar projects/plants set up or being setup</td>
<td>Please provide copies of relevant purchase orders, Completion certificate from clients, current operational details etc.</td>
</tr>
</tbody>
</table>

- ☐ Technical and Commercial details of currently operating Plant
- ☐ Commercial viability analysis (e.g. Internal Rate of Return for the project) w.r.t the prevailing Ethanol supply Govt. fixed rates to OMC locations

Note:

1. The party submitting the EOI shall submit documentary evidence to substantiate the above.
2. MRPL reserves the right to assess the capability and capacity of the interested parties.
3. Submission of EOI does not entitle for any kind of registration / qualification for further bid process.
4. MRPL may ask for a presentation by the interested parties which will be arranged in MRPL office or at a place decided by MRPL anywhere in India. The Bidder should bear costs for travel, stay for its officials participating in the presentation.
5. MRPL at its cost may decide visit to Technology Providers plant.
Rules applicable to Consortium, Indian Arm of Foreign The Bidder are given here below:

1. Parties who are affiliates of one another can decide which Affiliate will make a Proposal. Only one affiliate may submit a proposal. Two or more affiliates are not permitted to make separate bids directly or indirectly. If 2 or more affiliates submit a bid, then any one or all of them are liable for disqualification. However up to 3 affiliates may make a joint bid as a consortium, and in which case the conditions applicable to a consortium shall apply to them. “Affiliate” of a Party shall mean any company or legal entity which:

   (a) Controls either directly or indirectly a Party, or
   (b) Which is controlled directly or indirectly by a Party; or
   (c) Is directly or indirectly controlled by a company, legal entity or partnership which directly or indirectly controls a Party. “Control” means actual control or ownership of at least a 50% voting or other controlling interest that gives the power to direct, or cause the direction of, the management and material business decisions of the controlled entity.

2. Proposals may be submitted by:
   a) A single person/ entity (called sole the Bidder);
   b) A newly formed incorporated joint venture (JV) which has not completed 3 financial years from the date of commencement of business;
   c) A consortium (including an unincorporated JV) having a maximum of 3 (three) members;
   d) An Indian arm of a foreign company.

3. Fulfillment of Eligibility criteria and certain additional conditions in respect of each of the above 4 types of Bidders is stated below, respectively:

   a) The sole Bidder (including an incorporated JV which has completed 3 financial years after date of commencement of business) shall fulfill each eligibility criteria.

   b) In case the Bidder is a newly formed and incorporated joint venture and which has not completed three financial years from the date of commencement of business, then either the said JV shall fulfill each eligibility criteria or any one constituent member/ promoter of such a JV shall fulfill each eligibility criteria. If the proposal is received with the proposal that one constituent member/ promoter fulfils each eligibility criteria, then this member/promoter shall be clearly identified and he/it
Mangalore Refinery & Petrochemicals Limited  
(A Subsidiary of ONGC Ltd.)

shall assume all obligations under the contract and provide such comfort letter / guarantees as may be required by MRPL. The guarantees shall cover inter- alia the commitment of the member/ promoter to complete the entire work in all respects and in a timely fashion, being bound by all the obligations under the contract, an undertaking to provide all necessary technical and financial support to the JV to ensure completion of the contract when awarded, an undertaking not to withdraw from the JV till completion of the work, etc.

c) In case the Bidder(s) is/are a consortium (including an unincorporated JV), then the following conditions shall apply:
   i. Each member in a consortium may only be a legal entity and not an individual person;
   ii. The proposal shall specifically identify and describe each member of the consortium;
   iii. The consortium member descriptions shall indicate what type of legal entity the member is and its jurisdiction of incorporation (or of establishment as a legal entity other than as a corporation) and provide evidence by a copy of the articles of incorporation (or equivalent documents);
   iv. One participant member of the consortium shall be identified as the “Lead member” and contracting entity for the consortium;
   v. This Lead member shall be solely responsible for all aspects of the Proposal including the execution of all tasks and performance of all consortium obligations;
   vi. The Lead member shall fulfill each eligibility criteria;
   vii. A commitment shall be given from each of the consortium members in the form of a letter signed by a duly authorized officer clearly identifying the role of the member in the Proposal and the member’s commitment to perform all relevant tasks and obligations in support of the Lead member of the Consortium and a commitment not to withdraw from the consortium;
   viii. No change shall be permitted in the number, nature or share holding pattern of the Consortium members after pre-qualification, without the prior written permission of MRPL.
   ix. No change in project plans, timetables or pricing will be permitted as a consequence of any withdrawal or failure to perform by a consortium member; No consortium member shall hold less than 25% stake in a consortium;
   x. Entities which are affiliates of one another are allowed to bid either as a sole Bidder or as a consortium only;
   xi. Any person or entity can bid either singly or as a member of only one consortium.

d) In case the Bidder is an Indian arm (subsidiary, authorized agent, branch office or affiliate) of a foreign Bidder, then the foreign Bidder shall have to fulfill each eligibility criteria. If such foreign company desires that the contract be entered into with the Indian arm, then a proper back to back continuing (parent company) guarantee shall be provided by the foreign company clearly stating that in case of any failure of any supply or performance of the equipment, machinery, material or plant or
completion of the work in all respects and as per the warranties/guarantees that may have been given, then the foreign company shall assume all obligations under the contract.

Towards this purpose, it shall provide such comfort letter/guarantees as may be required by Owner. The guarantees shall cover inter alia the commitment of the foreign company to complete the entire work in all respects and in a timely fashion, being bound by all the obligations under the contract, an undertaking to provide all necessary technical and financial support to the Indian arm or to render the same themselves so as to ensure completion of the contract when awarded, an undertaking not to withdraw from the contract till completion of the work, etc.