



CAIRN INDIA LIMITED

(Incorporated in Mumbai, India – U11101MH2006PLC163934)

(INTERNATIONAL COMPETITIVE BIDDING)

**GLOBAL EXPRESSION OF INTEREST (EOI) FOR SUPPLY OF MODULAR SKID MOUNTED
POLYMER SOLUTION UNIT, PRE-ENGINEERED BUILDINGS, ELECTRICAL POWER
HOUSE, PUMPS AND RTP PIPES FOR RAJASTHAN BLOCK**

Cairn India Ltd (“CIL”) is the Operator of the Onshore RJ-ON-90/1 block, on behalf of itself and its Joint Venture (JV) partners Cairn Energy Hydrocarbons Limited (CEHL) and Oil and Natural Gas Corporation Limited (ONGC), located in Barmer district, in the state of Rajasthan, India. The Block contains number of major oil discoveries, including the Mangala, Bhagyam and Aishwariya Fields and various other discoveries which would be developed over a period of time. The ‘Expression of Interest’ is sought for developments in Rajasthan Block, where Cairn India Ltd (CIL) is the Operator.

CIL has also implemented chemical EOR process at Mangala field which will increase the oil recoveries and intends to execute EOR in other fields.

CIL on behalf of its joint venture partner’s invites interest bidders (Indian and International) with demonstrated HSE performance to express their interest, with the pre-qualification documents, to participate in an International Competitive Bidding Process (ICB) for supply of modular polymer solution skids with installation and commissioning services for Rajasthan block.

Package A: Supply of Modular Polymer Solution Skids with installation and commissioning services

The Contractor shall have demonstrated capabilities in Process Design, Detailed Engineering, Procurement, Fabrication and Commissioning of Modular Polymer Solution Skids for polymer injection in oil and gas facilities

Brief Scope of Work

The scope of work involves Process Design, Detailed Engineering, Procurement, Fabrication, Inspection, FAT, Packing, Shipping, Erection, Installation, Testing, Pre-commissioning and Commissioning for Polymer Solution skid, typically comprising of

- Polymer Big Bag unloading system
- Feed water filters
- Polymer dissolution Unit
- Mother Solution maturation Unit
- Polymer Solution transfer pumps
- Coarse and fine mother solution filters
- Control Room with necessary automation system
- Electrical Systems
- Instrument Air, Nitrogen Package, and other utilities

Technical requirements:

- Cumulative production capacity for 18000 bbl/day of polymer mother solution with minimum 3 and maximum of 4 skids
- Operating parameters
 - Concentration : 15,000 ppm with turndown up to 5000 ppm
 - Viscosity : 3000 centipoise (cP),
 - Viscosity degradation : Maximum 2%
 - Temperature : 60degC - 80degC
 - Polymer Powder Handling capacity: 35 - 50 metric tons per day of polymer (Poly Acryl Amide - PAM)

Specific Pre-Qualification Criteria:

1. Contractor should have carried out supply of modular skid mounted Polymer Solution of capacity 4500bbl/day or more in the last five years.
2. Turnover in each of the two preceding financial years shall be equal or more than the estimated value.
3. Net worth of the Contractor should be positive in each of the immediately preceding two (2) financial years
4. Liquidity ratio of the Contractor in each of the preceding two (2) financial years should not be less than 0.60.

The Contractor is requested, as a minimum, to submit the following documents and details:

1. Letter of interest from Contractor on their Letter Head clearly stating the package reference
2. Organization structure, List of manpower with CVs of key personnel, Plant and Machinery list mentioning year of manufacturing, Support agencies and other facilities and resources.
3. Details of completion of high value similar projects in Petro Chemical / Refinery / Oil & Gas projects in the last five (5) years under headings:
 - a) Brief scope of work
 - b) Value of work in INR / USD
 - c) Contractual Duration
 - d) Actual completion of Project with Completion Certificates
 - e) Clients name
 - f) Contact details of the Client
 - g) Safety Certification / Inspection of plant and machineries
 - h) HSE statistics, LTI graph etc.

Note: only completed projects on or before EOI submission date shall be considered for evaluation.

4. Specific Execution Strategy outlining Design, Engineering, Procurement, Project controls, Manufacturing/Fabrication, Commissioning functions along with geographical locations for each of the functions. Also provide Technical Catalogue with lead time in line with the project requirement for supply of above items.
5. Details regarding manufacturing/fabrication capabilities for above items
6. Details of In-house Engineering Resources / Alliance Partnership with Engg firms /Engg Softwares / Tech support Availability
7. Details of In-house Manufacturing/Fabrication division handled similar type of projects / Fabrication and Testing Capacities & capabilities.

8. List of current contracts of similar nature under execution with the value of the Contract and percentage completion. Clear Mentioning of spare workload capacity which shall ensure that the project would be completed in schedule.
9. Health Safety and Environment (HSE) policies, HSE Safety Manual / Procedures, Organogram in line with internationally accepted practices with statistics for last three (3) years.
10. LTIFR track record for last three (3) years.
11. Quality Manual, Policies and Procedures, Organogram in line with internationally accepted practices.
12. Copies of ISO certifications for ISO 9001, EMS 14001, OHSAS 18001 etc.
13. Financial performance documents (Audited Balance sheets, Profit and Loss statements etc.) for last two (2) years.
14. Details of current and projected commitment.
15. Information regarding any current litigation in which the Contractor is involved

The following additional details shall be required only for Package A:

- 1 Details of similar skid based polymer flooding projects where you were the equipment provider. Please specify the projects undertaken for Enhanced Oil Recovery, as well as polymer flooding in other industries with similar operations like Mining, Water Treatment etc. For the projects please provide information including:
 - 2 Details of installations with Polymer Solution concentration, Mother Solution Polymer viscosity and polymer tonnage (per day) handled
 - 3 Please specify the equipment that your company provided
 - 4 Please include other operating parameters - temperature, pressure, maximum distance to which concentrate is transferred, loss of viscosity due to shear, injection temperature, injection pressure, injection viscosity
 - 5 Nature of execution – Project or Pilot
 - 6 Location of project, operator, year of commissioning, delivery lead times for equipment
 - 7 Project / Job value and Completion Certificates
 - 8 Delivery performance records
 - 9 Client references along with the point of contact
- 10 Provide details of product offerings (e.g. maturation tanks, mother solution transfer pumps, utilities requirement such as IA, Nitrogen package, power, control etc.) and product capabilities
- 11 Please specify which are the specific equipment / components typically included within a package solution for polymer flooding. Also mention which of these components / equipment can be provided separately and are skidded.
- 12 Clearly specify the delivery lead times of all the products/equipment. Include delivery lead times for complete package
- 13 Clearly include maximum polymer handling capability in kg / hour of equipment
- 14 List partner / preferred sub-contractor OEMs with whom you collaborate with to provide various elements of the package solution. Please provide delivery lead times for each sub-contracted element
- 15 Please list all major polymer suppliers with whom your equipment is compatible. Also please specify if there is any constraint on using PAM of requisite from any supplier
- 16 In case of polymer supply, please include references and case studies for projects (EOR / similar operation industries like Mining, Water Treatment)

The interested Contractors should evince interest to participate in the Expression of Interest by clicking on the “Evince Interest” link against the corresponding Eol listing on the Cairn India website i.e. <http://www.cairnindia.com> and submit their contact details online.

Further to this, interested Contractor s would be invited to submit their response via Smart Source (Cairn’s e Sourcing Platform). The Contractor s would be requested, as a minimum, to submit the above documents and details for prequalification via Smart Source within Fourteen (14) days of publication of Expression of Interest.