

GLOBAL EXPRESSION OF INTEREST (Eoi) FOR “INTEGRATED DEVELOPMENT SERVICES FOR MANGALA, BHAGYAM & AISHWARIYA (MBA) FIELDS WITHIN THE RJ-ON-90/1 BLOCK”

Vedanta (erstwhile Cairn India Limited merged with Vedanta Limited w.e.f. April 11, 2017, pursuant to NCLT order dated March 23, 2017) is a globally diversified natural resources company with interest in Zinc, Iron Ore, Aluminum, Copper, Power and Oil & Gas. Cairn, its upstream Oil and Gas vertical, 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). The ‘RJ-ON-90/1’ block located in the Barmer basin in North West India was the country’s largest onshore discovery in 30 years and has 38 oil and gas discoveries including the prolific Mangala, Bhagyam and Aishwariya fields with a total resource potential of ~6.4 Billion barrels of hydrocarbon in place.

Brief History

Mangala, Bhagyam & Aishwariya Fields (MBA)

Mangala, Bhagyam and Aishwariya (MBA) are world class conventional reservoirs and form the back bone of the prolific Rajasthan block with ~2.1 Billion barrels of Oil in place. The fields were discovered in 2004 and brought into production in a staggered manner starting 2009. Major infrastructure is already in place in the area with a central oil processing terminal, ~ 550 wells (combination of producers and injectors across the MBA fields), well pads, intra-field pipelines, power & injection systems and crude evacuation facilities.

The MBA fields have been an example of innovative reservoir management techniques since inception. Subsequent infill campaigns and production optimization efforts have pointed to improvement in recovery factors better than what was initially envisaged. We have also demonstrated operational excellence with large scale artificial lift deployments across all the 3 fields (eg. Mangala- largest jet pump operation in the world). In late 2014, we commenced the polymer flood in the Mangala field, the largest such implementation in the world. Within a 12 month period, the company has achieved peak polymer injection targeting the entire Mangala reservoir. Based on the success of the polymer flood in Mangala, similar developments are being planned in the Bhagyam and Aishwariya fields with respective Field Development Plans (FDPs) already submitted to the Joint Venture partners. To further realize the potential from MBA, a successful ASP pilot was also implemented in the Mangala field. Based on the results of the pilot and available analogues, full field ASP implementation is now being planned across the 3 fields.

Brief Scope of Work

Vedanta envisions to ramp-up production from the MBA fields on a fast track basis and sustain thereafter for several years by significantly enhancing the ultimate recovery factors. To achieve these objectives, Vedanta on behalf of itself and its joint venture partners invites global OFS players and/or consortiums with end-to-end capabilities in domains such as sub-surface (EOR/IOR recovery techniques), development planning, well construction, surface facilities development, reservoir management and production optimization techniques to express their interest for pre-qualification to participate in the International Competitive Bidding (ICB) Process for the “Integrated development services for Mangala, Bhagyam &

Aishwariya (MBA) fields within the RJ-ON-90/1 block". Interested parties/consortiums would preferably need to demonstrate strong and integrated capabilities across the entire O&G value chain as well as past experience of executing similar large scale developments.

The project scope entails end to end functional delivery across the below mentioned projects in 2 categories. Category-1 would include implementation of Polymer flood in Bhagyam and Aishwariya fields and ASP implementation in the Mangala field while Category-2 would include ASP implementation in both the Bhagyam and Aishwariya fields.

Category-1: Involves end to end development (including finalizing the Field Development Plan, integrated well construction, surface facilities development and reservoir management/production optimization)

1. **Polymer flood in Bhagyam** – Prospective OFS vendors/consortium would be responsible for the integrated development and implementation of the polymer flooding program in the Bhagyam field. This would entail executing the existing development plan or modified development plan (sub-surface and surface facilities concept, well configuration), well construction, development of surface facilities and reservoir management/production optimization.
2. **Polymer flood in Aishwariya** – Prospective OFS vendors/consortium would be responsible for the integrated development and implementation of the polymer flooding program in the Aishwariya field. This would entail executing the existing development plan or modified development plan (sub-surface and surface facilities concept, well configuration), well construction, development of surface facilities and reservoir management/production optimization.
3. **ASP flood in Mangala**- The prospective OFS vendors/consortium would be responsible for the integrated development and implementation of the ASP flooding program in the Mangala field. This would entail selection of the most viable development option (chemical formulations, sub-surface and surface concept, well configuration) and likely integrated development

Category-2: Involves design, planning and execution of the ASP pilot program and subsequent finalization of the Field Development Plan (FDP), and likely integrated development

1. **ASP flood in Bhagyam**- The prospective OFS vendors/consortium would be responsible for the integrated development and implementation of the ASP flooding program in the Bhagyam field. This would entail design, planning and execution of a pilot program followed by the finalization of the most optimal field development plan (chemical formulation, sub-surface and surface concept, well construction etc.) and likely integrated development
2. **ASP flood in Aishwariya**- The prospective OFS vendors/consortium would be responsible for the integrated development and implementation of the ASP flooding program in the Aishwariya field. This would entail design, planning and execution of a pilot program followed by the finalization of the most optimal field development plan(chemical formulation, sub-surface and surface concept, well construction etc.) and likely integrated development

“SPECIFIC PRE-QUALIFICATION CRITERIA

NOTE: APPLICANT wherever referred to in this document, would mean the leader of **CONSORTIUM** of Oil & Gas Services Companies (in case the bidder applies as a **CONSORTIUM**) or an Oil & Gas Services Company itself (in case the bidder applies as an individual company). **APPLICANT** will be required to meet the below mentioned pre-qualification criteria to legitimately express interest for collaboration with Vedanta.

KEY PRE-QUALIFICATION CRITERIA

1. **Financial performance:** Minimum annual average turnover of the **APPLICANT** in each **preceding 2 financial years** should be **USD 150 Million** if the **APPLICANT** is applying for Category-1 and **USD 50 Million** in each **preceding 2 financial years** if the **APPLICANT** IS applying for Category-2 and with positive net worth in each of those financial years

APPLICANTS are requested to submit company's financial performance documents (Audited Balance sheets, Profit and Loss Account & cash flow statement , Auditors Report and Notes to Accounts etc.) for last 2 (two) financial years. Latest financial statement **should not be older than 15 months** on the date of submission of response to Expression of interest.

Additional points to be considered for evaluation of financial performance:

- Normally standalone financials of the bidding entity only will be considered. However, consolidated financials at the bidding entity level, if available, can also be submitted. Parent company or Affiliate’s financials can be submitted and considered, subject to submission of Parent/ Affiliate company guarantee. This should be clearly mentioned in the EOI response
 - In case of **CONSORTIUM**, the financials of the leader of the **CONSORTIUM** (in whose name the bid is submitted) will be evaluated.
 - Evaluation will be done only on the basis of the published annual reports / audited financials containing Auditor’s report, Balance sheet, Profit & Loss a/c and Notes to Accounts
 - In case of unaudited statements (if there are no audit requirements for auditing of financials as per the local law), the financials shall be accompanied by a certificate from a Certified Accountant. Certificate should also mention the fact that there is no requirement of audit of the financials as per the local law
 - All qualifications and exceptions brought out in Auditor’s report and Notes to Accounts would be factored in while undertaking financial evaluation
2. **Project Interest:** The **APPLICANT** needs to certify in the table below on which of the 2 categories (or both) the **APPLICANT** is interested in.

Category	Yes or No
Category-1	
Category-2	

3. **E&P delivery capabilities:** The **APPLICANT** needs to certify in the table below on which of the specific E&P capabilities they possess either by themselves or as a part of a consortium

Please note that the **APPLICANT (bidder or leader of the consortium)** must have either one or multiple of the following as a core capability i.e. Sub-surface (For EOR/IOR application), drilling and Petroleum Engineering if applying for Category—1 and must have sub-surface capabilities (experience/demonstration of ASP/SP/Polymer processes) if applying for Category-2

Capability	Does the bidder/consortium have this capability? (Yes or No)	If No, does the bidder/consortium plan to sub-contract? (Yes or No)
Sub-surface (including capabilities for EOR/IOR implementation)		
Drilling- design and execution including logging and real time formation evaluation		
Petroleum Engineering- Completion design and artificial lift systems including PCPs and ESPs; producer and injector well start-up including flow backs and well remediation programs		
Field Development Planning		
Surface facilities development (EPC, Installation, commissioning etc.)		

4. **Health, Safety, Environment and Quality (HSEQ): APPLICANT (Bidder/all members of the consortium)** must have a comprehensive Health, Safety, Environmental and Quality Management systems in place.

APPLICANTS are requested to submit the following documents related to HSE and Quality:

- a) HSE Management System, Policy, Manuals and Procedures
- b) LTI statistics for past 3 years
- c) HSE certifications/accreditations
- d) Quality manual, policy and procedures
- e) Quality certifications/accreditations

Documents to be furnished in the Proposal for Pre-Qualification

1. Letter of interest from the **APPLICANT** on their letter head.
2. In case of bidding as a consortium, the division of the scope of work shall be submitted along with a Memorandum of Understanding (MoU)/declaration of intent.
3. Financial performance documents as listed in the Pre-qualification criteria 1 (Financial performance)
4. Project category interest table to be completed as listed in Pre-qualification criteria 2

5. E&P delivery capabilities table to be completed as listed in Pre-qualification criteria 3
6. **Some past case studies supporting specific E&P delivery capability if mentioned as yes in the table in Pre-qualification criteria 3**
7. HSEQ performance documents of the bidder/all members of the consortium as listed in Pre-qualification criteria 4 (HSE)
8. List of litigations in last 5 years, if any
9. Declaration specifying that the APPLICANT is not under liquidation, court receivership or other similar proceedings
10. Any other documents in support of APPLICANT's credentials and experience and expertise, relevant to Vedanta opportunity areas

The interested bidders/consortium should evince interest to participate in the Expression of Interest by clicking on the "Evince Interest" link against the corresponding EOI listing on our website i.e. www.cairnindia.com and submit their contact details online. Further to this, interested contractors would be invited to submit their response via smart source (Vedanta's e-sourcing platform). The contractors would be requested, as a minimum, to submit the above documents and details for pre-qualification via smart source with 21 days of publication of Expression of Interest.