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CAIRN INDIA LIMITED

(Incorporated in Mumbai, India – U11101MH2006PLC163934)

(INTERNATIONAL COMPETITIVE BIDDING)

GLOBAL EXPRESSION OF INTEREST (Eoi) FOR SUPPLY OF MODULAR SKID MOUNTED SULPHATE REMOVAL PLANT AND BALANCE OF PLANT FOR SULPHATE REMOVAL PROJECT ON EPC BASIS 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 on behalf of itself and its joint venture partners invites Expression of Interest under International Competitive Bidding (“ICB”) process from reputed contractors (Indian and International) with demonstrated HSE performance and proven track record with capabilities for below packages.

Package A: Supply of Modular Skid Mounted Sulphate Removal Plant

The contractors with capabilities in Process Design, Detailed Engineering, Procurement, Fabrication and Commissioning of Modular Skid Mounted Sulphate Removal Plant in NF + RO technology (including Pre-treatment system and Sulphate Removal Unit) in Upstream Oil and Gas Facilities.

Brief Scope of Work:

The scope of work involves Process Design, Detailed Engineering Design, Procurement, Fabrication, Inspection, FAT, Packing, Shipping and Supervision during Erection, Installation, Testing, Pre-commissioning and Commissioning for Sulphate Removal Plant (Package) comprising of

- **Pre-treatment System:** Water Pre-treatment system consisting of Multi – Media filters and Cartridge filters to handle 350,000 BWPD. Pre-treatment system to include Chlorine and SMBS Dosing of Multi-Media filters, Anti – Scalants to treat water incoming at a temperature of 40° C - 45° C and pH in the range of 6.8 - 7.2.
- **Sulphate Removal Unit:** Unit needs to reduce inlet water Sulphate concentration from 500~550 ppm to < 10 ppm with a reject of < 10% at an inlet water flow rate of 350,000 BWPD. The recommended technology is NF (Nano Filtration) + RO (Reverse Osmosis) membranes. Additionally, setup to have a Cleaning in Place (CIP) system consisting of Cleaning tank, Electric heater, Pump, Filter, and Chemical Injection skid.

The contractors shall have demonstrated capabilities in Process Design, Detailed Engineering, Procurement and Fabrication of Sulphate Removal Plant (Package) in NF + RO technology (including Pre-treatment) in Oil and Gas sector leveraging pre-fabrication and maximum usage of modular/skid mounted process equipment to minimize in situ construction.

Specific Pre-Qualification Criteria:

1. The contractor should have proven track record in successfully executing minimum two (2) Sulphate Removal Plant in NF + RO technology (including Pre-treatment system and Sulphate Removal Unit) of capacity more than 200,000 BPD in the last five (5) years.
2. Annual average turnover of the contractor should not be less than USD 105 Million in each of the immediately preceding two (2) financial years.
3. Positive net worth of the contractor should be at least USD 11 Million 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 0.75.

Package B: EPC works for balance of Plant for Sulphate Removal Project

The contractor with capabilities in Engineering, Procurement, Construction and Commissioning for EPC works in Petro Chemical / Refinery / Oil and Gas / Water Treatment in Upstream Oil and Gas Facilities.

Brief Scope of Work:

The scope of work involves Detailed Design, Procurement, Fabrication, Inspection, FAT, Packing, Shipping, Unloading at site, complete Erection and Installation, Construction of facilities at site, Testing, Pre-commissioning and Commissioning on EPC basis for the following:

- **Erection and Commissioning of Sulphate Removal Plant comprising of following systems / units. Supervision during Erection and Commissioning will be by Package Supplier. Sulphate Removal Plant shall be Free Issue Material.**
 - **Pre-treatment System:** Water Pre-treatment system consisting of Multi – Media filters and cartridge filters to handle 350,000 BWPD. Pre-treatment system to include Chlorine and SMBS Dosing of Multi-Media filters, Anti – Scalants to treat water incoming at a temperature of 40° C - 45° C and pH in the range of 6.8- 7.2.
 - **Sulphate Removal Unit:** Unit needs to reduce inlet water Sulphate concentration from 500~550 ppm to < 10 ppm with a reject of < 10% at an inlet water flow rate of 350,000 BWPD. The recommended technology is NF (Nano Filtration) + RO (Reverse Osmosis) membranes. Additionally, setup to have a Cleaning in Place (CIP) system consisting of Cleaning tank, Electric heater, Pump, Filter, and Chemical Injection skid.
- **Flow management:** Use of break tanks and corresponding pumps for managing flow for Feed inlet, product, and reject system.
- Additionally, facility to cover pipelines for raw water from the B/L, disposal of reject into reject disposal wells away from the plant in the proposed ROU and distribution of treated water (both metal and non-metal material of construction) to the existing plant.
- **Utilities:** Utility System like Air and Nitrogen Package, Fire Fighting System, Emergency DG, Portable Water, Substation / E-house etc.
- **Well pad for reject disposal wells:** Development of well pad including surface facilities like pipeline, OHL, substation/E-House, control room etc. (Well Drilling by Company).

Contractors shall have demonstrated EPC capabilities in Oil and Gas sector leveraging pre-fabrication and maximum usage of modular/skid mounted process equipment to minimize in situ construction.

Specific Pre-Qualification Criteria:

1. The contractor should have carried out at least one (1) major Petro Chemical / Refinery / Oil and Gas / Water Treatment project of value more than USD 30 Million in the last five (5) years or at least two (2) major Petro Chemical / Refinery / Oil and Gas / Water Treatment project of value more than USD 15 Million in the last five (5) years.
2. Annual average turnover of the contractor should not be less than USD 44 Million in each of the immediately preceding two (2) financial years.
3. Positive net worth of the contractor should be at least USD 4.4 Million 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 0.75.

The contractors are requested, as a minimum, to submit the following documents and details:

1. Letter of interest on the letter head.
2. Detailed contractor Information with 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 Sulphate Removal Plant (Supply Package) in NF + RO technology (comprising of Pre-treatment system and Sulphate Removal Unit) in major Petro Chemical / Refinery / Oil and 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) Client's name f) Contact details of the Client g) Safety Certification / Inspection of plant and machineries h) HSE statistics, LTI graph etc.
4. Details of completion of major Petro Chemical / Refinery / Oil and Gas / Water Treatment 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) Client's name f) Contact details of the Client g) Safety Certification / Inspection of plant and machineries h) HSE statistics, LTI graph etc.
5. Specific Execution Strategy outlining Engineering, Procurement, Project controls Construction and Commissioning functions along with geographical locations for each of the functions.
6. List of current contracts of similar nature under execution with the value of the Contract and percentage completion.
7. Experience of working in Remote Onshore location and Desert terrain.
8. List of Projects demonstrating Capabilities and Experience in modularizing various processing equipment in Oil and Gas Industry.
9. Health Safety and Environment (HSE) policies, HSE 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.

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

Further to this, interested contractors would be invited to submit their response via Smart Source (Cairn's e Sourcing Platform). The contractors would be requested, as a minimum, to submit the above documents and details for prequalification for **any or both of the above packages clearly specifying the package reference number and name** via Smart Source within Fourteen (14) days of publication of Expression of Interest.