Energy for India

CAIRN ENERGY INDIA PTY LIMITED

(Incorporated in New South Wales, Australia – ACN 002 066 784)

GLOBAL EXPRESSION OF INTEREST (EoI) FOR PROCUREMENT OF SKIDS AND BULK ITEMS UNDER LONG TERM RATE CONTRACT FOR BHAGYAM AND AISHWARIYA FIELD DEVELOPMENT AND MANGALA PROCESSING TERMINAL CAPACITY EXPANSION PROJECT

Cairn Energy India Pty Ltd. ("CEIL") is the Operator on behalf of Joint Venture partners CEIL, Cairn Energy Hydrocarbons Limited and Oil and Natural Gas Corporation, of the Contract Area RJ-ON-90/1 at Barmer in the state of Rajasthan. The RJ-ON-90/1 block contains a number of major oil discoveries namely Mangala, Bhagyam, Aishwariya and other fields. The Mangala field is the largest onshore oil discovery in India since 1985. The Mangala field development consists of well pad facilities and processing hub named Mangala Processing Terminal (MPT) which is currently under implementation.

It is now proposed to develop Bhagyam field consisting of 15 Well pads and Aishwariya field consisting of 9 Well pads with infield and trunk pipeline, OHL and other infrastructure facilities and augment the processing capacity of MPT by addition of new processing equipment. The development activity has already commenced and the tentative completion schedule is by December 2013.

CEIL, on behalf of its joint venture partners invites reputed Indian and International OEM/Fabricators/Integrators with demonstrated capability and HSE performance to express their interest, for prequalification to participate in the International Competitive Bidding Process (ICB) for the packages listed below. The Company shall enter into Long Term Rate contract for the supply of the Bulk Items /Packages to be issued on call-out order basis.The scope includes design, engineering, shop fabrication/manufacturing, testing and delivery (wherever applicable).

Package Ref No.	Item Description	Brief Technical specification	Approx. Total Qty	Expected delivery after PO
A	**Pipe, Fittings & Flanges**			
1.	**Pipe:**	Seamless pipe bare with bevelled ends to ASME B 36.10. Sizes ½" to 30". Pipe wall thickness ranging from sch 40 to Sch XXS. MOC: CS to ASTM A 106 Gr.B/C basis project piping material specification. Charpy & impact testing required for wall thickness >21mm Seamless pipe bare with bevelled ends to ASME B 36.19. Sizes ½" to 6". Pipe wall thickness ranging from sch 40S to Sch 80S. MOC: ASTM A 312 TP304L/316L basis project piping material specification.	20,000 mts & 4000 Mts (Various sizes and ratings)	3 to 4 months

Package Ref No.	Item Description	Brief Technical specification	Approx. Total Qty	Expected delivery after PO
2.	**Anchor Flanges**	• Design, manufacture and supply of Anchor Flanges for pipeline sizes 6" to 30" , designed to ASME Sec VIII BPVC and AISC (ASD) 9th Ed for pipeline applications, MOC A 105 / SA694 - F52 and F60/Equivalent	200 Nos	3 to 4 months
3.	**Pipe fittings:** Fittings will include Elbows, tees, caps, plugs, bushings, hex nipples, unions, weldolts, sockolets, thredolets,Nipolets, latrolet & elbowlets. All fittings shall be seamless and forged.	• All fittings to suit piping in accordance with ASME B31.3 & ASME B 31.1 • All pipe fittings shall be seamless and shall be to ASME B 16.9 & 16.11 • Wrought fittings machined from block forgings shall not be acceptable • Sizes 1/2" to 30" • Rating: 150/300/600/900/1500 • Pipe Fittings MOC: A105/A234 WPB/A420 WPL6/A430WP304L/316L	Fittings-10,000 Nos (Various sizes and ratings)	3 to 4 Months
4	**Flanges:** Flanges will include SORF, WNRF, blind and spectacle blinds. All flanges shall be forged and those machined from bar stock will not be acceptable.	• Flanges 24" and smaller shall be forged to the requirements of ASME B16.5. • Flanges >24" shall be as per ASME B 16.47 A or B series • Blind flanges shall be as per ASME B 16.48 • Flanges MOC : A-105/A-350LF2/ A182 F304L/316L	Flanges-4,000 Nos (Various sizes and ratings)	3 to 4 Months
B	**Manual Valves**			
1	Ball Valves	**Common for B1 to B5** • All valves to meet : ASME B16.10 end to end dimensions • Sizes: ½" to 30" • Rating: 150#, 300#, 600#, 900# & 1500# • All valves shall meet the project VMS specification. • Ball valves 150# shall be designed to ASME B16.34 & tested to API 598 • Ball valves 300# to 2500# shall meet API-6D design and testing requirements • API valves shall meet designed and tested in accordance with API 6A • Butterfly valves shall meet API-609 • Gate, globe, check, Plug and needle valve shall meet ASME 16.34 • Material of construction - CS/LTCS/SS	Ball valves: 3000 Nos Gate valves: 500 Nos Globe valves: 1000 Nos Check valves: 250 Nos Butterfly valves: 50 nos Needle valves: 1500 nos Plug Valves-100	4 to 5 Months
2	Gate/Globe/Check Valves			
3	Butterfly Valves			
4	Plug Valves & Needle Valves			

Package Ref No.	Item Description	Brief Technical specification	Approx. Total Qty	Expected delivery after PO
5	Y-Strainer, 100mesh		Y-Strainer :100 nos (Various sizes and ratings)	
C	**Mechanical**			
1	Design, Fabrication, testing, packing and Supply of Skid mounted Production/Test/Injection Manifolds for Well pads	• Skid to accommodate upto six well flow lines with ESD/Isolating valves, Instrumentation, cabling, heat tracing and insulation. • The skid to contain Production, Test and Injection headers lines. • The instrument air utility and chemical injection lines shall be part of the skid. • Skid to have terminal points suitable for installation on pedestal and piping hook-up. • All lines to be Heat traced & insulated. • All valves to meet ASME B16.10 • All fittings to meet ASME B 16.9 & 16.11	15	4 to 5 Months
2	Design, Fabrication, testing, packing and Supply of Skid Mounted Pig Launcher/Receiver	• The unit will be skid mounted and include a Quick Opening Closure, piping to various tie points, valves, instrumentation, pig signallers, etc. • All lines and Pig Barrels to be Heat traced & insulated. • Line Size/Spec : 6" to 30 "; Rating - 300#, 600#, 900#, ASME B 31.4 • The Supplier shall be responsible for detailed design, supply of materials, fabrication, assembly and testing, in accordance with ASME Section VIII, Div 1 as well as technical documentation, painting, and shipment.	30	4 to 5 Months
3	Design, Supply, Testing of Low Shear Multiphase Screw Pump	Multiphase Pump in line with API 676 Design , Material Procurement, Fabrication ,inspection ,testing, pre commissioning & commissioning support for low shear Multiphase Screw Pump for Multiphase Production Fluid (Electrical Motor Driven) capacities ranging from 250 m3/Hr to 500 m3/ Hr with Differential Pressure ranging from 125 psi to 200 psi along with package PLC and vibration monitoring system. Specific Qualification Criteria : Demonstrated track record of past supplies for heavy waxy crude of similar skids with minimum operation of 8000 hrs in one year.	4	6 months

Package Ref No.	Item Description	Brief Technical specification	Approx. Total Qty	Expected delivery after PO
D	Electrical			
1	Transformers	Oil-filled / dry type transformers up to 3 MVA, up to 33kV/433 V as per Indian Standards, furnish type test certificates from Central Power Research Institute (CPRI) - India or equivalent, proving guaranteed performance of the transformers at site.	28 Nos.	3-4 months
2	LV Switchboard	Indoor (IP 4X) and Outdoor (IP 55 min.), Double front, fuse less and draw-out type low voltage switchboards (415V, up to 4500 Amps, up to 100kA for 1 sec) with built-in VFDs / soft-starters / dual-speed drivers, as per IS/IEC Standards, furnish type test certificates from Central Power Research Institute (CPRI) - India or equivalent, and proving guaranteed performance of the switchboards at site.	26 Nos.	3-4 months
3	HV Switchgear Panels	SF6 circuit breaker panels (33kV, up to 1250A, 31.5kA for 1 sec), VCB / VC + Fuse panels (11kV, up to 4000A, 50kA for 1 sec & 6.6kV, up to 2500A, 40kA for 1 sec) as per IS/IEC Standards, integrate with existing Switchboards, panels built-in with numerical relays communicating over IEC 61850 protocol with Experion PKS SCADA, furnish type test certificates from Central Power Research Institute (CPRI) - India or equivalent, proving guaranteed performance of the switchgear panels at site.	20 Nos.	5-6 months
4	Packaged Secondary Substation	Comprising 33kV Switchgear with transformer protection relays, Oil filled / dry type 33kV/433V transformers up to 3MVA capacity and 415V, up to 4500A, up to 100kA for 1 sec Switchboard comprising ACB, MCCB, MCCB + Contactor motor and power feeders. Complete packaged substation shall be enclosed in weatherproof (IP 55 minimum) enclosure and come as ready to install unit at site Packaged Substation shall have in-built numerical relays communicating over MODBUS protocol with plant control system, with voltage & energy measurement modules, furnish type test certificates from Central Power Research Institute (CPRI) - India or equivalent, proving guaranteed performance of the switchboards at site.	24 Nos.	5-6 months

Package Ref No.	Item Description	Brief Technical specification	Approx. Total Qty	Expected delivery after PO
5	**Un-interruptible Power Supply (UPS) System**	Solid state parallel redundant UPS system with by-pass mains up to 50kVA, 240V, 1ph, 50Hz as per IS/IEC Standards, 12 pulse rectifiers, complete with ultra-low maintenance Ni-Cd batteries, capable of communicating over MODBUS protocol with plant control system, furnish type test certificates from Central Power Research Institute (CPRI) - India or equivalent, proving guaranteed performance of the UPS at site.	24 Nos.	5-6 months
6	**Reactive Power Compensation System (RPSC)**	11kV reactive power compensation system up to 15MVAR as per IS/IEC Standards, in IP 54 enclosures, with in-built numerical relays capable of operating without external control power supply and communicating over MODBUS protocol with plant control system, furnish type test certificates from Central Power Research Institute (CPRI) - India or equivalent, proving guaranteed performance of the switchboards at site.	1 No.	5-6 months
7	**High Voltage Power Cables -6.6kV (UE), 11kV (UE) & 33kV(E)**	Single / Multi-core power cables of stranded copper conductor, conductor screening, XLPE insulation & insulation screening formed by triple extrusion, extruded PVC-ST2 inner sheathed, galvanised steel / aluminium wire armoured, overall flame retardant low smoke (FRLS) and UV resistant extruded PVC-ST2 sheathed as per IS/IEC Standards. Cables should have been type tested in Central Power Research Institute, Bhopal or equivalent for electrical performance and in Central Institute of Mines and Fuel Research (CIMFR), Dhanbad - India or equivalent, approved by Directorate General of Mines Safety (DGMS) for use in hazardous area (Zone 1 & 2).	10 KMs	3-4 months

Package Ref No.	Item Description	Brief Technical specification	Approx. Total Qty	Expected delivery after PO
8	**Medium & Low Voltage Power and Control Cables**	Single / Multi-core power cables of stranded copper conductor, XLPE insulation, extruded PVC-ST2 inner sheathed, galvanised steel / aluminium wire armoured, overall flame retardant low smoke (FRLS) / Fire Resistant (FR) and UV resistant extruded PVC-ST2 sheathed as per IS/IEC Standards. Cables should have been type tested in Central Power Research Institute, Bhopal or equivalent for electrical performance and Central Institute for Mining and Fuel Research (CIMFR), Dhanbad - India or equivalent, and approved by Directorate General of Mines Safety (DGMS) for use in hazardous area (Zone 1 & 2).	200 KMs	3-4 months
9	**EHT & Skin Effect Heat Management System (SEHMS)**	Electrical heat tracing system for piping up to 24" dia., rotating and static equipment based on self regulating type tracers, for maintenance of process temperature up to 149^0C, piping exposure temperature of 232^0C. EHT System comprises, tracers, power & control cables, RTDs, temperature Controllers, transformers, flameproof control panels, power / control JBs, connectors etc. as per IEEE/IS/IEC standards. Performance of EHT system shall be demonstrated at site. All equipment should have been type tested at Central Power Research Institute (CPRI), Bhopal or equivalent for electrical performance, hazardous area equipment should have been type tested at Central Institute for Mining and Fuel Research (CIMFR), Dhanbad - India or equivalent, and approved by Directorate General of Mines Safety (DGMS) for use in hazardous area (Zone 1 & 2, Gas Group IIA/B, T3 temperature code).	50 KMs tracers	4-5 months

Package Ref No.	Item Description	Brief Technical specification	Approx. Total Qty	Expected delivery after PO
10	**CP System**	Temporary and permanent cathodic system for underground piping up to 24" dia., pipelines up to 24" dia., and static equipment based on sacrificial anode and impressed current principle. CP System comprise, transformer / rectifier units, power & control cables, impressed current / sacrificial anodes, insulating materials, field JBs / bond boxes etc. as per NACE/IS/IEC standards. Performance of CP System shall be demonstrated at site. All equipment should have been type tested at Central Power Research Institute (CPRI), Bhopal or equivalent for electrical performance, hazardous area equipment should have been type tested at Central Institute for Mining and Fuel Research (CIMFR), Dhanbad - India or equivalent, and approved by Directorate General of Mines Safety (DGMS) for use in hazardous area (Zone 1 & 2, Gas Group IIA/B, T3 temperature code).	62 KMs	4-5 months
11	**Power & Lighting Distribution Boards (PDB/LDBs) - Outdoor**	PDBs / LDBs self-standing / wall mounted, 415/240V, 100Amps, 3P,3W or 1P, 2W, Copper bus, weatherproof and flameproof enclosures, LM6 die-cast aluminium body, with 415V/240V, dry type transformers up to 20kVA capacity, up to 30 Way, feeder ratings as per panel schedule / single line diagram as per IS / IEC standards. PDBs / LDBs should have been type tested at Central Power Research Institute (CPRI), Bhopal for electrical performance and hazardous area equipment should have been tested at Central Institute for Mining and Fuel Research (CIMFR), Dhanbad - India or equivalent, & approved by Directorate General of Mines Safety (DGMS) for use in hazardous area (Zone 1 & 2, Gas Group IIA/B, T3 temperature code).	50 nos.	3-4 months

Package Ref No.	Item Description	Brief Technical specification	Approx. Total Qty	Expected delivery after PO
12	**Power & Lighting Distribution Boards (PDB/ LDBs) - Indoor**	PDBs / LDBs self-standing / wall mounted, 415V/240V, 630Amps, 3P,3/4W, Copper bus, IP4X enclosures, CRCA steel body, with 415V/415V or 240V, dry type transformers up to 125kVA capacity, up to 30 Way, feeder ratings as per panel schedule / single line diagram as per IS / IEC standards. Type test certificates from Central Power Research Institute (CPRI) - India or equivalent shall be furnished and guaranteed performance of the PDBs / LDBs shall be proved at site.	50 Nos.	3-4 months
13	**Lighting Mast – up to 30 meters height**	Symmetrical and asymmetrical, galvanised flood lighting mast up to 30 meters height, suitable for up to 20 nos. 400W metal halide fixtures, comprising flameproof motor operated mechanism, flameproof feeder pillar, cabling, aviation lamps, lightning protection etc. Lighting mast should have proven performance in desert environment in India and hazardous area equipment should have been type tested at Central Institute of Mines and Fuel Research (CIMFR), Dhanbad - India or equivalent, approved by Directorate General of Mines Safety (DGMS) for use in hazardous area (Zone 1 & 2, Gas Group IIA/B, T3 temperature code).	50 Nos.	3-4 months
14	**Street Lighting poles**	Galvanised round tapered straight street lighting poles up to 12 meters height, with 1.2 m single / double arm at 300 angle to horizontal, with base plate, suitable for flameproof 250W metal halide fixture, flexible cabling, flameproof junction box with MCBs, grounding/lightning protection etc. Street lighting poles should have proven performance in desert conditions in India and hazardous area equipment should have been type tested at Central Institute of Mines and Fuel Research (CIMFR), Dhanbad - India or equivalent, approved by Directorate General of Mines Safety (DGMS) for use in hazardous area (Zone 1 & 2, Gas Group IIA/B, T3 temperature code).	150 nos.	3-4 months

Package Ref No.	Item Description	Brief Technical specification	Approx. Total Qty	Expected delivery after PO
15	**Flood Lighting poles**	Galvanised round tapered lighting poles up to 12 meters height, heavy duty, one or two piece construction, with ladder / lowering mechanism for lamp replacement & base plate, suitable for 2 nos. flameproof 400W metal halide fixture, flexible cabling, flameproof junction box with MCBs, grounding/lightning protection etc. Flood lighting poles should have proven performance in desert conditions in India and hazardous area equipment should have been type tested at Central Institute of Mines and Fuel Research (CIMFR), Dhanbad - India or equivalent, approved by Directorate General of Mines Safety (DGMS) for use in hazardous area (Zone 1 & 2, Gas Group IIA/B, T3 temperature code).	150 nos.	3-4 months
16	**Safe area lighting fixtures**	Industrial general purpose indoor & outdoor / corrosion resistant, integral / non-integral type well glass, high / medium / low bay, bulk head, recess/surface mounted lighting fixtures with or without standby battery for emergency purpose, building exit lights etc suitable for use in office / substation / control rooms, unclassified plant areas such as periphery / gate /flood light / street light for use with 2X36W / 4X18W FTL, 80W/125W/250W high pressure mercury vapour (HPMV) lamps, 250W/400W metal halide (MH) lamps, 100W GLS lamp etc as per IS. Light fixtures shall be complete with low loss electronic type fixtures, mounting brackets, cable glands etc All fixtures should have proven performance in India.	500 nos.	2 months

Package Ref No.	Item Description	Brief Technical specification	Approx. Total Qty	Expected delivery after PO
17	Hazardous area lighting fixtures	Industrial indoor & outdoor, corrosion resistant, integral / non-integral type well glass, high / medium / low bay, bulk head, LM6 cast aluminium body, surface mounted lighting fixtures with or without standby battery for emergency purpose, suitable for use in hazardous area (Zone 1 & 2, Gas Group IIA/B, T3 temperature code) in Oil & Gas mine installations for use with 2X36W FTL, 80W/125W/250W high pressure mercury vapour (HPMV) lamps, 250W/400W metal halide (MH) lamps, 100W GLS lamp etc as per IS. Light fixtures shall be complete with low loss electronic ballast, mounting brackets, flameproof double compression cable glands, stopper plugs etc Lighting fixtures should have proven performance in desert conditions in India and should have been type tested at Central Institute of Mines and Fuel Research (CIMFR), Dhanbad - India or equivalent, approved by Directorate General of Mines Safety (DGMS) for use in hazardous area (Zone 1 & 2, Gas Group IIA/B, T3 temperature code).	500 nos.	3 months
18	Local Control Station	Weatherproof / flameproof local control station with Start and Stop push buttons, Hand-Off-Auto Switch, Ammeter, Emergency Stop Push Button mounting brackets, flameproof double compression cable glands, stopper plugs etc LCS should have proven performance in desert conditions in India and should have been type tested at Central Institute of Mines and Fuel Research (CIMFR), Dhanbad - India or equivalent, approved by Directorate General of Mines Safety (DGMS) for use in hazardous area (Zone 1 & 2, Gas Group IIA/B, T3 temperature code).	200 nos.	3 months

Package Ref No.	Item Description	Brief Technical specification	Approx. Total Qty	Expected delivery after PO
19	**Safe area power receptacles**	Industrial type, weatherproof single phase (240V, 1ph, up to 16Amps) and three phase (415V, 3ph, up to 200Amp) interlocked receptacles, CRCA enclosure IP 55 (min), with 3P/2P MCB/MCCB + earth leakage protection, galvanised sheet hood, SS hardware, double compression cable glands, stopper plugs etc Receptacles should have proven performance in desert conditions in India	100 nos.	2 months
20	**Hazardous area power receptacles**	Flameproof single phase (240V, 1ph, up to 16Amps) and three phase (415V, 3ph, up to 200Amp) interlocked receptacles, LM6 cast aluminium enclosure IP 55 (min), with 3P/2P MCB/MCCB + earth leakage protection, galvanised sheet hood, SS hardware, double compression cable glands, stopper plugs etc Receptacles should have proven performance in desert conditions in India, should have been type tested at Central Institute of Mines and Fuel Research (CIMFR), Dhanbad - India or equivalent and approved by Directorate General of Mines Safety (DGMS) for use in hazardous area (Zone 1 & 2, Gas Group IIA/B, T3 temperature code).	100 nos.	3 months
E	**Instruments**			
1	**Emergency Shutdown Valves (ESDV)**	Ball valve fire safe design, Sizes ranging from 2" to 30", ANSI class 150/300/600/900/1500, MOC: CS/SS body with DSS/Hastelloy-C ball, leakage class V with metal seat and Class VI with soft seat with Pneumatic single acting spring return actuators, 316SS Body 24 VDC low power solenoid valves and accessories like open/close position limit switchbox, Quick exhaust valves, silencers etc. Some of the valve shall be provided with partial stroke facility using electronic valve controller.	550 nos	5 to 6 months

Package Ref No.	Item Description	Brief Technical specification	Approx. Total Qty	Expected delivery after PO
2	**Motorised operated valves**	Ball valve fire safe design, Sizes ranging from 8" to 20", ANSI class 150/300, MOC: CS body with DSS/Hastelloy-C ball, leakage class V with metal seat, Electric motorised actuators 240VAC / 24VDC supply and accessories like open/close position limit switchbox, torque switches, local operation pushbuttons etc	10 nos	5 to 6 months
3	**Control Valves**	Globe/Ball/Rotary style body, sizes ranging from 2" to 30", ANSI Class 150/300/600/900/1500/2500, MOC : CS body with DSS/Hastelloy-C trim, leakage class IV, Pneumatic actuator with Electro-pneumatic smart positioner and AFR. Trim design. Valve sizing shall be as per ISA 75.01	220 nos	5 to 6 months
4	**Electronic Transmitters**	Pressure, Differential Pressure, Flow, DP type level transmitters, Temperature transmitters with RTD/thermowell, capillary, diaphragm and instrument isolation manifold including tube fittings suitable for Hazardous area (Ex-proof, ATEX certified, CMRI approved) and desert installation. Accuracy shall be min 0.1% of range.	625 nos	3 to 4 months
5	**Orifice plates**	Flow & restriction orifice complete with carrier flanges and pressure tappings. Pressure rating 150#, 300#, 600# & 900#. Sizing of orifice as per ISO 5167. MOC of orifice shall be SS316 and flanges to meet piping specification.	120 nos	3 to 4 months
6	**Instrument rotameters**	Variable area type metallic rotameters with local analogue/digital display. Accuracy class shall be 1%. MOC - SS316 and flange rating to match with piping. Pressure rating 150#, 300#, 600#, 900#	96 nos	3 to 4 months
7	**Pressure Safety valves**	Safety valves to API RP 520. Sizes ranging from ½" thru 8" to suit the flow rates. Flange rating 150#, 300#, 600# & 900# MOC: A216 WCB/A105 (CS)/A 182 F304/316	300 nos	3 to 4 months
8	**Self acting Pressure regulators**	Flanged self acting regulators per project specification complete with pneumatic pilots and diaphragm actuated. Flange rating: 150#, 300#, 600#, 900# MOC: Carbon steel body with SS316 trim	60 nos	3 to 4 months

Package Ref No.	Item Description	Brief Technical specification	Approx. Total Qty	Expected delivery after PO
9	**Pressure Gauges**	SS 304/316 body gauges, with blow our protection back, external adjustment, bezel, shatter proof glass, glycerine filled and screwed bottom connection. Gauges shall be supplied complete with isolation manifold and tube fittings as applicable. Accuracy class 1%. Accessories include snubbers and siphons.	300 Nos	3 to 4 months
10	**Temperature Gauges**	SS 304/316 body gauges, with SS316 thermowell, with external adjustment, bezel, shatter proof glass, glycerine filled, back connection, all angle & bi metallic sensor. Accuracy class 1%	75 Nos	3 to 4 months
11	**Integrated control system (ICS) with containerised instrument room**	ICS comprising of remote terminal unit (RTU) for control of well pad, SIL-3 certified emergency shutdown system (ESD) with associated marshalling cabinets and power distribution cabinets housed in a air conditioned instrument containerised room (approximate size equivalent to standard 40 feet container) with lighting, fire alarm system and telephone connections. ICS at each of the 24 well pads shall interface seamlessly with Yokogawa Centum CS DCS and Prosafe RS ESD system at MPT to allow remote monitoring and control of these well pads from MPT	24 nos	6 to 12 months (phased delivery
F	**Telecom**			

Package Ref No.	Item Description	Brief Technical specification	Approx. Total Qty	Expected delivery after PO
1	**CCTV System**	The CCTV Central Control System is an IP based solution utilizing DVTEL Latitude Elite Digital Media Controller (DMC) Video Software based Management System. Remote camera signals are standard PAL Video and RS 485 Serial Data (Pelco-P Protocol) which interface the Central CCTV equipment racks using single mode fibre optic transceivers, each using a single fibre Camera should be housed in one of the 2 housing: 1) PTZ Camera Housing 2) Fixed Housing • Hazard Rating: ATEX II 2 GD EExd IIC T6 • Material: Stainless Steel AISI 316L • Ingress Protection: IP67(PTZ Camera housing)/IP66 (fixed housing)	1	3 to 4 months
		Features: Sunshield, Heater, Wash Wiper Camera Junction Box: Hazard Rating: ATEX II 2 GD EExd IIC T6 Material: Stainless Steel 1.5mm AISI 316L Ingress Protection: IP66 Should contain: SAK Terminals, FCPC Inline Connector Camera: ½ Inch Sony Cameras Standard Output Colour: PAL Operating Temperature: 0 to 50 Deg Celsius Resolution: 530 TV Lines Signal to Noise Ration: >50dB Sensitivity:0.07 Lux Auto and Manual Iris Control: Yes F Stop: 1.4 Lens: 18X Zoom with f=4.1mm (wide) to 73.8mm (tele) focal length		

Package Ref No.	Item Description	Brief Technical specification	Approx. Total Qty	Expected delivery after PO
2	PA/GA System	The main PAGA system is located at MPT (Mangala Processing Terminal), all other sites are connected and act as satellite systems, broadcasting messages and alarms from the main system - the satellite locations in this scope are 24 Well pads. In the event the link between the main system and the satellites is compromised, the satellite systems will produce alarms from the Fire and Gas only. Equipments should be able to operate below the RF interference signals permitted by the ITU Standards. This should also be integrated with the existing PBX System	1	3 to 4 months
3	Access Control System (ACS)	The access control system is designed to provide controlled access to the site through use of proximity readers; it should also be capable of monitoring contacts, when fitted. Each door should consist of a combination of the following: • V100 Door Control module • Proximity Entry Card Reader • Exit button • Break Glass (some locations) • MagLock • Proximity Exit Card Reader (Some locations) • PIR (some locations) Each location will have a controller and interface units (V1000 & V200). The Interface modules I/Os upto 16 door control modules all daisy chained via RS485. This also reports back to the control unit (at MPT). In order for the interface unit to communicate to the security LAN , the controller (V1000) is used. Each V1000 controller will use fiber media converters to connect to the central equipment.	1	3 to 4 months
4	DNS (Data and Network System)	There are 2 6509 Core switches at the Central location at MPT – The edge switch functionality need to be provided using C3560 Catalyst switches – 24/48 ports. Also a 9U (wall mount)/15U/20U/42U (list all) Rack in each location to house the Data Switches and Fibre termination panels. There would be 2 to 4 data/IP telephone sockets each having 3 switch ports connected.	1	3 to 4 months

Package Ref No.	Item Description	Brief Technical specification	Approx. Total Qty	Expected delivery after PO
5	Hotline	The system should provide Point to Point connectivity from the Control Room to the Wellpad(s). The existing setup is created by the AS2850/AS2860 (KELTEL) combinations and is capable of being expanded from a basic 8 channel to 31 channels by adding additional modules – the proposed system for wellpad should integrate with this existing system.	1	3 to 4 months

Specific Pre-Qualification Criteria ("GO"/"NO GO")

For items A1, A2,A3,A4, B1, B2, B3, B4

- Demonstrate similar quantities of supplies to Oil & Gas projects of pipes, fittings and valves in size range for a single project
- Demonstrate manufacturing capability
- Demonstrate required quality approvals are available
- Identify raw material sourcing details
- In house testing arrangements
- Details of Frame Agreement with local and international Clients if any.

For item C1, C2

- Demonstrate supplies to Oil & Gas projects of similar skids in the past and in operation
- Demonstrate manufacturing capability
- Demonstrate in-house engineering capability to handle Structural, mechanical, piping and instrumentation associated with the package
- Issue current list of sub suppliers for valves, instruments, pipes, fittings, etc.
- Demonstrate in-house QA/QC capabilities
- Details of Frame Agreement/Term Contract with local and international Clients if any.

For items D1, D2, D3, D4, D5, D6, D12, 16, 19

- CPRI and / or equivalent international type test certificates for temperature rise, short circuit withstand, di-electric withstand, Ni-Cd battery discharge performance, enclosure protection, EMI capability, noise level and operational life as applicable

For items D7, D8

- CPRI type test certificates for thermal withstand, short circuit withstand, di-electric withstand, UV, FRLS and FR properties on outer sheath
- CIMFR or equivalent type test certificates and DGMS approval for use in Zone 1 & 2, Gas Group IIA/B, Temperature Group T3

For items D9, D10

- CPRI or equivalent international type test certificates for electrical performance and operational life
- CIMFR or equivalent type test certificates and DGMS approval for hazardous equipment and cables for use in Zone 1 & 2, Gas Group IIA/B, Temperature Group T3

For items D11, 17, 18, 20

- CPRI and / or equivalent international type test certificates for temperature rise, short circuit withstand and enclosure protection,
- CIMFR or equivalent type test certificates and DGMS approval for hazardous equipment for use in Zone 1 & 2, Gas Group IIA/B, Temperature Group T3

For items D13, 14, 15

- Should have in-house design, development, manufacturing and site erection capabilities
- CIMFR or equivalent type test certificates and DGMS approval for hazardous equipment for use in Zone 1 & 2, Gas Group IIA/B, Temperature Group T3.

For items E1 to E10

- Past track record (PTR) for instruments supplied to EPC upstream Oil and gas projects in Desert environment
- Confirm compliance with ATEX requirements
- Issue list of sub suppliers for manifolds and tube fittings, where applicable.
- Demonstrated delivery performance
- Details of Frame Agreement with local and international Clients if any.

Only those bidders possessing substantial and proven record in manufacturing/supply of above items/packages of similar scale with excellent delivery schedule & who are interested to enter into Long Term rate Contract. Should respond to this notice. Bidders are requested, as a minimum, to submit the documents listed against package A to F

In addition to the above requested document, bidder shall also submit credentials to support the specific qualification criteria for each package

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

1. Letter of interest with detailed company information
2. Technical Catalogue of the Item/Package with lead time for manufacturing
3. Lists of similar supplies successfully executed in the last five years and those of currently under execution with delivery performance records, job value, client certification, client references etc.(With emphasis of work carried out in Oil and Gas Sector)
4. Company's manufacturing set up with Capacity details and Geographical location.
5. Current Shop floor loading chart.
6. Quality assurance/control practices and certifications to manufacture such items.
7. Health, Safety and Environment (HSE) policies, certifications, procedures and statistics on HSE performance covering the last four (4) years.
8. Company's financial performance documents (Audited Balance sheets and Profit and Loss statements etc.) for last 3 years.

CEIL requests interested bidders to submit their Expression of Interest for any / all of the above packages, clearly specifying the **Package Ref. No./Sub-package Ref. No. with item description** {example – Ref No. E/1- Emergency Shutdown Valves} along with pre-qualification documents to the below address within fourteen (14) days of publication of this EOI by email as attached PDF File and via courier to:

Director – P&SCM
Cairn Energy India Pty Limited
Ground Floor, Tower A, Paras Twin Tower, Sector Road
Sector 54, Gurgaon -122 002
Tel.: 0091-124-476 4000 Fax: 0091-124-476 4568
E-mail : pscmmba@cairnindia.com