

EXPRESSION OF INTEREST (EOI)

Project	CERES
Company / Client	Perdaman Chemicals and Fertilisers Pty Ltd
Material Requisition Number	0000-HA-E-48007
Package Title	MACHINE AND CONDITION MONITORING SYSTEM (MCMS)
1. SUBMISSION PROCEDURE	
EOI Instructions	<p>Supplier(s) are invited to express interest by registering on ICN Gateway where competency and previous positive experiences of similar supply of goods / services can be demonstrated.</p> <p>When submitting interest registrants will be asked to complete an expression of interest document. The registrant's response will form their Expression of Interest (EOI) for material and/or services.</p> <p>Suppliers will only be considered for Prequalification should they satisfy stated criteria, including but not limited to Health, Safety & Environmental Management, Quality management, financial standing, relevant experience and availability.</p>
EOI Closing Date	Please submit by close of business on 30/11/2023
Returnable Schedules	Where the EOI calls for any Returnable Schedules, please ensure all schedules are submitted.
Contact	<p>All initial enquiries should be made through the Industry Capability Network Western Australia (ICNWA).</p> <p>Andie Pfaff Andie.Pfaff@icnwa.org.au +61 (08) 9365 7442</p>
URL	<p>For more information regarding the Perdaman, refer</p> <ul style="list-style-type: none"> • https://www.perdamanindustries.com.au/scjv/
2. INDICATIVE SCOPE OF WORK	
Package Description	<p>Overview</p> <p>Saipem Australia Pty Ltd and Clough Projects Australia Pty Ltd Joint Venture (herein referred to as the "CONTRACTOR") has reached an agreement with Perdaman Chemicals and Fertilisers Pty Ltd (herein referred to as the "OWNER") for the Engineering, Procurement, Construction and Commissioning of the PROJECT CERES located in Burrup Strategic Industrial Area, Burrup Peninsula, Western Australia.</p> <p>Perdaman Chemicals and Fertilisers Pty Ltd (OWNER) is focused on the development of Perdaman - Project CERES which shall be the world's largest gas stream ammonia-urea plant with a production capacity of 2.14 MMTPA granular urea.</p>

	<p>General Scope of Supply / Services</p> <p>Design, engineering, supply of materials, fabrication and assembly, shop tests and inspections, painting and marking, packing, transportation, etc., of MACHINE AND CONDITION MONITORING SYSTEM (MCMS) as listed in Annexure 1.</p> <p>Further inclusions consist of provision of management, design, calculation, procurement, fabrication, testing and certification to satisfy the scope of supply.</p> <p>The following must be provided:</p> <ul style="list-style-type: none"> • Technical deviations list • Special tools list • Schedule of rates • Spares list • Quality assurance <p>Responsibilities will include <i>inter alia</i>:</p> <ul style="list-style-type: none"> • The VENDOR shall assure responsibility for the entire package, including each sub-supply and components indicated in this specification. • Project management, reporting, attending meetings, participation in risk assessment workshops. • Comply with site mobilisation and site requirements. • Delivering work in a safe manner and to the required standards. • Whole Guarantee and responsibility for assembling and good operation of the complete unit.
Standards	Compliance with National, International and Industry Standards, Australian and WA Regulatory requirements.
Key Dates	Tender planned to be issued during end November 2023
Point of Delivery	Module Fabrication Yard (Outside Australia)
3. RETURNABLE DOCUMENTS	
List of Returnable Schedules	List of experience on similar equipment supply projects
4. DISCLAIMER	
This Expression of Interest to gain an insight into the capabilities of potential suppliers and/or service providers and not a Tender Invitation or offer - the schedule and content of this work is subject to change pending project demand and timelines.	

ANNEXURE 1

A. MCMS - SCOPE OF SUPPLY

SL. NO.	Tag. No.	ITEM DESCRIPTION	QTY	UOM
A	SCOPE OF SUPPLY			
A.1	MMS	MACHINE MONITORING SYSTEM		
1	System cum Marshalling Cabinet	MMS shall supply Rack, Modules, Communication Interface Modules, System Interconnection Cables along with System Cabinets to interface the Field Sensors as estimated in the IO Summary Table (Preliminary). Spare capacity Requirements Vendor Engineering shall include all necessary rack and module configurations, graphic displays, machine analysis & data archiving, testing and interfaces as part of their scope of work. MMS shall be protected against any cybersecurity vulnerabilities with rugged protections against unauthorized data access or cyberattacks.	1	Lot
2	Portable Engineering Workstation	Portable Engineering Workstation shall be Industrial Grade station running in Windows latest operating system. This station shall be supplied to test the configurations and also for trouble shooting. Individual softwares & Licenses break up price shall be provided	1	Lot
3	Data acquisition servers/Data loggers	Portable device for vibration measurements, Temperature measurements etc., shall be included. These portable devices require a network and database to upload and download data.	1	Lot
A.2	CMS	CONDITION MONITORING SYSTEM		
1	Condition Monitoring Server (Includes Diagnostic System) & associated software packages	One Monitoring Workstation with enhanced shall be Industrial Grade Desktop running in Windows latest operating system with Intel Pentium Processors with 16GB DDR5, 1TB SATA SDD (RAID 5), Keyboard, optical mouse, 24" or larger LED monitor (minimum resolution supporting 1280 x 1024 pixels or better), four (4) network interface ports, HDMI graphics Outputs, USB ports for data backup with necessary password protected against unauthorized data copying. etc. The Diagnostic System shall continuously acquire, analyze, monitor, and display data from the subordinated Monitor Systems. The system shall be able to handle scalar-data (one value together with a timestamp) and array-data (multiple values together with a timestamp). Machine specific Condition, Monitoring and Diagnostics Package (Automated rules, etc.) A backup and restore solution for the Diagnostic System and subordinated Monitor Systems shall be provided. Individual software & Licenses break up price shall be provided.	1	Lot
2	Data Historian	The historian database shall be redundant. Retention shall be for 10 years. It shall be possible to retrieve data into an external hard disk at regular intervals	1	Lot
3	Communication with Subordinated Monitor Systems	Interface between the Diagnostic System and the subordinated Monitor Systems shall be via proprietary protocol data link	1	Lot
A.3	SPARES	SPARE PARTS AND SPECIAL TOOLS		
1	Commissioning Spares	Spare Parts for Installation / Start-up and Commissioning	1	Lot
2	2 Year Operational Spares	Vendor shall include in the supply the spare parts for two (2) years of operations.	1	Lot
3	Spares list	Vendor shall complete recommendation and interchangeability record form. Completion of these forms shall be accompanied by copies of relevant drawings, all in accordance with the Purchase Order Conditions.	-	-
4	Special tools	Special tools, if any applicable to MCMS package.	1	Lot

B. MCMS – IO SUMMARY TABLE

S. NO	Plant	Equipment Tag	Equipment Description	Criticality Rating	MMS	CMS	Vibrational Probe		Accelerometer	Bearing RTD		Key Phasor/SpeedProbe	Over Speed Sensor	DI from ESD	DO to ESD	Total	Remarks
							Axial	Radial		Radial	Thrust						
1	AMMONIA	2500-K-431/ 2500-TK-431	Synthesis Gas Compressor (with Steam Turbine)	1	Y	Y	6	12	-	16	8	1	-	1	5	49	
2	AMMONIA	2500-K-441/ 2500-TK-441	Ammonia Compressor (with Steam Turbine)	1	Y	Y	6	12	-	16	8	1	-	1	5	49	
3	UREA MELT	2610-K-101/ 2610-TK-101	CO2 Compressor (With Steam Turbine)	1	Y	Y	4	24	-	24	8	6	-	1	5	72	
4	UREA MELT	2710-K-101/ 2710-TK-101	CO2 Compressor (With Steam Turbine)	1	Y	Y	4	24	-	24	8	6	-	1	5	72	
5	UREA MELT	2610-P-101A/B	H. P. Ammonia Pump	1	Y	Y	6	16	2	16	8	2	-	-	4	54	
6	UREA MELT	2610-P-102A/B	H. P. Carbamate Pump	1	Y	Y	4	12	6	12	10	2	-	-	4	50	
7	UREA MELT	2710-P-101A/B	H. P. Ammonia Pump	1	Y	Y	6	16	2	16	8	2	-	-	4	54	
8	UREA MELT	2710-P-102A/B	H. P. Carbamate Pump	1	Y	Y	4	12	6	12	10	2	-	-	4	50	
9	UTILITIES	3610-TG-001A/B	Gas Turbine Generators	1	N	Y											MMS - By other Scope, Interfacing hardware for CMS to be provide.
10	UTILITIES	3630-TG-101	Steam Turbine Generator	1	N	Y											MMS - By other Scope, Interfacing hardware for CMS to be provide.
11	AMMONIA	1300-P-301A/B/C/D	Semilean Solution Pump	1	Y	Y	-	16	12	24	4	4	-	-	4	64	
12	AMMONIA	1300-XP-301A/B	Reverse Pump for Semilean Solution Pump 1300-P-301A/B	1	Y	Y	-	8	2	4	2	2	-	-	5	23	
13	UTILITIES	3310-P-701 A + 3310-PT-701A	Steam Turbine for KP BFW pump A + KP Boiler Feed Water (BFW) Pump	1	Y	Y	4	8	-	4	6	2	-	-	4	28	
14	UTILITIES	3310-P-701 B + 3310-MP-701B	KP Boiler Feed Water (BFW) Pump + Motor for KP BFW Pump	1	Y	Y	2	4	2	6	2	1	2	1	5	25	
15	AMMONIA	1100-K-292	Start-up N2 compressor	2	Y	N	-	-	4	9	-	1	-	1	3	18	
16	AMMONIA	1100-K-294	Start-up recycle H2 compressor	2	Y	N	-	-	3	6	-	1	-	-	-	10	
17	AMMONIA	1300-K-301	Flash gas Compressor	2	Y	N	-	-	4	6	-	1	-	-	-	11	
18	AMMONIA	1300-P-302A/B	Lean Solution Pump	2	Y	N	2	8	6	12	2	2	-	-	4	36	
19	UREA MELT	2610-K-102A/B	Stripper Passivation Air Compressor	2	Y	N	-	-	2	-	-	-	-	-	-	2	
20	UREA MELT	2710-K-102A/B	Stripper Passivation Air Compressor	2	Y	N	-	-	2	-	-	-	-	-	-	2	
21	GRANULATION	2620-K-201	Atomization air compressor	2	Y	N	2	10	-	14	4	1	-	1	5	37	
22	GRANULATION	2720-K-201	Atomization air compressor	2	Y	N	2	10	-	14	4	1	-	1	5	37	
23	AMMONIA	1100-K-201	Combustion air blower n.1	2	Y	N	2	2	2	3	-	1	-	-	4	14	

