

## EXPRESSION OF INTEREST (EOI)

<b>Project</b>	CERES
<b>Company / Client</b>	Perdaman Chemicals and Fertilisers Pty Ltd
<b>Package Material Requisition Number</b>	0000-RA-E-20067
<b>Package Title</b>	UREA SHELL AND TUBE HEAT EXCHANGER AND VESSELS
<b>1. SUBMISSION PROCEDURE</b>	
<b>EOI Instructions</b>	<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 &amp; Environmental Management, Quality management, financial standing, relevant experience and availability.</p>
<b>EOI Closing Date</b>	<b>12/04/2023</b>
<b>Returnable Schedules</b>	Where the EOI calls for any Returnable Schedules, please ensure all schedules are submitted.
<b>Contact</b>	<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 7422</p>
<b>URL</b>	<p>For more information regarding the Perdaman, refer</p> <ul style="list-style-type: none"> <li>• <a href="https://www.perdamanindustries.com.au/scjv/">https://www.perdamanindustries.com.au/scjv/</a></li> </ul>
<b>2. INDICATIVE SCOPE OF WORK</b>	
<b>Package Description</b>	<p><b>Overview</b> 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><b>General Scope of Supply / Services</b></p> <p>Design, engineering, supply of materials, fabrication and assembly, shop tests and inspections, painting and marking, packing, transportation, etc., of <b>UREA SHELL AND TUBE HEAT EXCHANGER AND VESSELS</b> 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"> <li>• Technical deviations list</li> <li>• Special tools list</li> <li>• Schedule of rates</li> <li>• Spares list</li> <li>• Quality assurance</li> </ul> <p>Responsibilities will include <i>inter alia</i>:</p> <ul style="list-style-type: none"> <li>• Project management, reporting, attending meetings, participation in risk assessment workshops</li> <li>• Comply with site mobilisation and site requirements</li> <li>• Delivering work in a safe manner and to the required standards</li> <li>• Provide all equipment and materials for the Scope of Work</li> </ul>
<b>Standards</b>	Compliance with National, International and Industry Standards, Australian and WA Regulatory requirements.
<b>Key Dates</b>	Final Notice to Proceed planned during 2023
<b>Point of Delivery</b>	Module Fabrication Yard (Outside Australia)
<b>3. RETURNABLE DOCUMENTS</b>	
<b>List of Returnable Schedules</b>	List of experience on similar equipment supply projects
<b>4. DISCLAIMER</b>	
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

SL NO	EQUIPMENT INFORMATION		Design Condition for HE shell side		Design condition for HE tube side		EQUIPMENT DIMENSIONS					HEAT EXCHANGER DATA				MATERIAL				EPC STAGE ESTIMATED UNIT WEIGHT Kg
			Pressure	Temperature	Pressure	Temperature	ID (DIA)	TL - TL (T/L LENGTH / HEIGHT)	TUBE LENGTH (EFF)	SHELL THK.	HEAD THK. / CHANNEL THK	Tube OD	Tube Thk	No of Tubes	BAYAS / UNIT SHELL / UNIT	SHELL	Channel / Head	Tubes	Tubesheet	
1	2610-C-103	M. P. INERTS WASHING TOWER (ASSEMBLED WITH E-111) - 2610-C-103	2,3	-33 / 250	N.A	N.A	730	10656	N.A	15	12	NA	NA	NA	NA	SA 240 TP 304L	SA 240 TP 304L	NA	NA	2470
2	2610-L-102	M.P.DECOMPOSER HOLDER (Assembled with E-102A/B, V-102) - 2610-L-102	2,3	10/ 190	N.A	N.A	2130 / 1100	See V-102	N.A	13/27	13	NA	NA	NA	NA	SA 240 TP 316L	SA 240 TP 316L	NA	NA	4310
3	2610-V-102	M.P.DECOMPOSER SEPARATOR (Assembled with E-102A/B, L-102) - 2610-V-102	2,3	10/ 190	N.A	N.A	2750	15934	N.A	30	30	NA	NA	NA	NA	SA 240 TP 316L	SA 240 TP 316L	NA	NA	23220
4	2610-L-103	L.P.DECOMPOSER HOLDER (ASSEMBLED WITH E-103, V-103) - 2610-L-103	0,7	10/ 180	N.A	N.A	1890 / 1100	See V-103	N.A	8	9	NA	NA	NA	NA	SA 240 TP 316L	SA 240 TP 316L	NA	NA	1480
5	2610-V-103	L.P.DECOMPOSER SEPARATOR (ASSEMBLED WITH E-103, L-103) - 2610-V-103	0,7	10/ 180	N.A	N.A	2000	12682	N.A	10	10	NA	NA	NA	NA	SA 240 TP 316L	SA 240 TP 316L	NA	NA	8190
6	2610-L-104	VACCUM PRECONCENTRATOR HOLDER (ASSEMBLED WITH E-104, V-104) - 2610-L-104	0.18 / F.V.	10/ 132	N.A	N.A	3090 / 1500	See V-104	N.A	7/11	8	NA	NA	NA	NA	SA 240 TP 316L	SA 240 TP 316L	NA	NA	3250
7	2610-V-104	VACCUM PRECONCENTRATOR SEPARATOR (ASSEMBLED WITH E-104, L-104) - 2610-V-104	0.18/FV	10/ 132	N.A	N.A	4000	12051	N.A	15	15	NA	NA	NA	NA	SA 240 TP 316L	SA 240 TP 316L	NA	NA	17450
8	2610-E-102-1	M.P.DECOMPOSER_UPPER PART (Assembled with E-102-2, V-102, L-102) - 2610-E-102-1	2.8 / F.V.	10 / 250	2,3	190	2130	See V-102	5500	24	NA	38,1	2,108	1602	NA	SA 516 Gr.70 N	NA	SA-213 TP310MoLN	SA 266 Gr.2+ OVERLAY 25/22/2 Cr/Ni/Mo (thk.10 mm MIN)	49150
9	2610-E-102-2	M.P.DECOMPOSER_LOWER PART (Assembled with E-102-1, V-102, L-102) - 2610-E-102-2	2.8 / F.V.	10 / 250	2,3	190	2130	See V-102	1650	26	NA	38,1	2,108	1602	NA	SA 516 Gr.70 N	NA	SA-213 TP310MoLN	SA 266 Gr.2+ OVERLAY 25/22/2 Cr/Ni/Mo (thk.10 mm MIN)	Included in 2610-E-102-1
10	2610-E-103	L.P.DECOMPOSER (ASSEMBLED WITH V-103, L-103) - 2610-E-103	0.8 / F.V.	10 / 192	0,7	180	1890	See V-103	5000	13	NA	38,1	2,108	1271	NA	SA 516 Gr.70N	NA	SA 213 TP 316L	SA 266 Gr.2+ OVERLAY 316L (thk.10 mm MIN)	20100
11	2610-E-104	VACCUM PRECONCENTRATOR (ASSEMBLED WITH V-104, L-104) - 2610-E-104	2,30	10 / 165	0.18/FV	132	3090	See V-104	4000	33	NA	50,8	2,108	1881	NA	SA 240 TP 316L	NA	SA 213 TP 316L (SMLS)	SA 182 Gr. F 316L	44400
12	2610-E-111	M. P. AMMONIA ABSORBER (ASSEMBLED WITH C-103) - 2610-E-111	1,15	10 / 80	2,3	-33 / 100	730	see C-103	5500	10	see C-103	25,4	2,769	354	NA	SA 516 Gr.60N	NA	SA 213 TP 304L (SMLS)	SA 182 F304L	5340
13	2710-C-103	M. P. INERTS WASHING TOWER (ASSEMBLED WITH E-111) - 2710-C-103	2,3	-33 / 250	N.A	N.A	730	10656	N.A	15	12	NA	NA	NA	NA	SA 240 TP 304L	SA 240 TP 304L	NA	NA	2470
14	2710-L-102	M.P.DECOMPOSER HOLDER (Assembled with E-102A/B, V-102) - 2710-L-102	2,3	10/ 190	N.A	N.A	2130 / 1100	See V-102	N.A	13/27	13	NA	NA	NA	NA	SA 240 TP 316L	SA 240 TP 316L	NA	NA	4310
15	2710-V-102	M.P.DECOMPOSER SEPARATOR (Assembled with E-102A/B, L-102) - 2710-V-102	2,3	10/ 190	N.A	N.A	2750	15934	N.A	30	30	NA	NA	NA	NA	SA 240 TP 316L	SA 240 TP 316L	NA	NA	23220
16	2710-L-103	L.P.DECOMPOSER HOLDER (ASSEMBLED WITH E-103, V-103) - 2710-L-103	0,7	10/ 180	N.A	N.A	1890 / 1100	See V-103	N.A	8	9	NA	NA	NA	NA	SA 240 TP 316L	SA 240 TP 316L	NA	NA	1480
17	2710-V-103	L.P.DECOMPOSER SEPARATOR (ASSEMBLED WITH E-103, L-103) - 2710-V-103	0,7	10/ 180	N.A	N.A	2000	12682	N.A	10	10	NA	NA	NA	NA	SA 240 TP 316L	SA 240 TP 316L	NA	NA	8190
18	2710-L-104	VACCUM PRECONCENTRATOR HOLDER (ASSEMBLED WITH E-104, V-104) - 2710-L-104	0.18 / F.V.	10/ 132	N.A	N.A	3090 / 1500	See V-104	N.A	7/11	8	NA	NA	NA	NA	SA 240 TP 316L	SA 240 TP 316L	NA	NA	3250
19	2710-V-104	VACCUM PRECONCENTRATOR SEPARATOR (ASSEMBLED WITH E-104, L-104) - 2710-V-104	0.18/FV	10/ 132	N.A	N.A	4000	12051	N.A	15	15	NA	NA	NA	NA	SA 240 TP 316L	SA 240 TP 316L	NA	NA	17450
20	2710-E-102-1	M.P.DECOMPOSER_UPPER PART (Assembled with E-102-2, V-102, L-102) - 2710-E-102-1	2.8 / F.V.	10 / 250	2,3	190	2130	See V-102	5500	24	NA	38,1	2,108	1602	NA	SA 516 Gr.70 N	NA	SA-213 TP310MoLN	SA 266 Gr.2+ OVERLAY 25/22/2 Cr/Ni/Mo (thk.10 mm MIN)	49150

21	<b>2710-E-102-2</b>	M.P.DECOMPOSER_LOWER PART (Assembled with E-102-1, V-102, L-102) - 2710-E-102-2	2.8 / F.V.	10 / 250	2,3	190	2130	See V-102	1650	26	NA	38,1	2,108	1602	NA	SA 516 Gr.70 N	NA	SA-213 TP310MoLN	SA 266 Gr.2+ OVERLAY 25/22/2 Cr/Ni/Mo (thk.10 mm MIN)	Inlcuded in 2610-E-102-1
22	<b>2710-E-103</b>	L.P.DECOMPOSER (ASSEMBLED WITH V-103, L-103) - 2710-E-103	0.8 / F.V.	10 / 192	0,7	180	1890	See V-103	5000	13	NA	38,1	2,108	1271	NA	SA 516 Gr.70N	NA	SA 213 TP 316L	SA 266 Gr.2+ OVERLAY 316L (thk.10 mm MIN)	20100
23	<b>2710-E-104</b>	VACCUM PRECONCENTRATOR (ASSEMBLED WITH V-104, L-104) - 2710-E-104	2,30	10 / 165	0.18/FV	132	3090	See V-104	4000	33	NA	50,8	2,108	1881	NA	SA 240 TP 316L	NA	SA 213 TP 316L (SMLS)	SA 182 Gr. F 316L	44400
24	<b>2710-E-111</b>	M. P. AMMONIA ABSORBER (ASSEMBLED WITH C-103) - 2710-E-111	1,15	10 / 80	2,3	-33 / 100	730	see C-103	5500	10	see C-103	25,4	2,769	354	NA	SA 516 Gr.60N	NA	SA 213 TP 304L (SMLS)	SA 182 F304L	5340