

EXPRESSION OF INTEREST (EOI)

Project	CERES
Company / Client	Perdaman Chemicals and Fertilisers Pty Ltd
Package Material Requisition Number	0000-RA-E-20061
Package Title	AMMONIA SHELL AND TUBE HEAT EXCHANGERS LOT 1
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	12/04/2023
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 7422</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 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 AMMONIA SHELL AND TUBE HEAT EXCHANGERS LOT 1 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"> • 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 • Provide all equipment and materials for the Scope of Work
Standards	Compliance with National, International and Industry Standards, Australian and WA Regulatory requirements.
Key Dates	Final Notice to Proceed planned during 2023
Point of Delivery	Partial at Module Fabrication Yard (Outside Australia) & Partial at Project Site in Burrup Strategic Industrial Area (Western 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

TAG NO	Operating Condition / Operating condition for HE shell side		Operating condition for HE tube side		Design Condition / Design condition for HE shell side		Design condition for HE tube side		Dimensions						HEAT EXCHANGER DATA						MATERIAL				EPC STAGE ESTIMATED UNIT WEIGHT		
	PROJECT MAIN ITEM TAG	Pressur e	temperatur e	Pressur e	temperatur e	Pressur e	temperatur e	Pressur e	temperatur e	ID (DIA)	LENGT H	TUBE LENGT H (EFF)	SHEL L THK.	HEAD THK. / CHANNE L THH	SHEL L THK.	HEAD THK. / CHANNE L THH	Tube OD	Tube Thk	No of Tubes	BAYAS / UNIT SHELL / UNIT	EFF. HEAT TRANSFER AREA	TEMA TYPE	DESIGN Thermal Load	SHELL		Channel / Head	Tubes
	(Mpa(g))	(°C)	(Mpa(g))	(°C)	(Mpa(g))	(°C)	(Mpa(g))	(°C)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)				Nr.	(sqm/bay) (sqm/Shell)	(KJ/Hr)						kg
EXCHANGE R 1	3,33	87 / 45	0,43	38 / 43	4,10	-10/180	1,15	-10/80	320	3064	2360	10	10	10	10	19,05	2,108	68	1	9,6	BEM	0,49	SA 516-70N	SA 516-70N	SA 179 SEAMLESS	SA 266-2	770
EXCHANGE R 2	0,7	230 / 48	0,43	38 / 48	1,10	-10/260	1,15	-10/80	850	4860	3700	11	11	11	11	19,05	2,108	702	1	155	NBJ21 M	9,12	SA 516-70N	SA 516-70N	SA 179 SEAMLESS	SA 266-2	5.400
EXCHANGE R 3	0,876	79 / 230	4,7	384 / 261	1,10	-10/260	FV / 5.3	-10/425	740	4813	3300	10	26	10	26	19,05	2,11	147U	1	58,1	BJ12U	7,58	SA 516-70N	SA 516-70N	SA 179 SEAMLESS	SA 266-2	4.474
EXCHANGE R 4	4,5	33 / 60	4,35	70 / 69	6,15	-10/100	5,50	-10/100	350	2400	1280	12	10+3	12	10+3	19,05	1.651	49U	1	7,51	BEU	0,42	SA 516-70N	SA 516-70N + Ss304L Clad	SA 213 TP 304L	SA 266-2 + SS 304L Clad	880
EXCHANGE R 5	4,45	258 / 70	4,7	24 / 233	5,50	-10/271	5,50	-10/260	550	8232	6400	22	22	22	22	12,7	1,65	613	3	156,57	BEM	19,75	SA 240 Gr. 304L	SA 240 Gr. 304L	SA 213 TP 304L (SEAMLESS)	SA 182 F304L	6.941
EXCHANGE R 6	4,45	258 / 70	4,7	24 / 233	5,50	-10/271	5,50	-10/260	550	8232	6400	22	22	22	22	12,7	1,65	613	3	156,57	BEM	19,75	SA 240 Gr. 304L	SA 240 Gr. 304L	SA 213 TP 304L (SEAMLESS)	SA 182 F304L	6.941
EXCHANGE R 7	4,45	258 / 70	4,7	24 / 233	5,50	-10/271	5,50	-10/260	550	8232	6400	22	22	22	22	12,7	1,65	613	3	156,57	BEM	19,75	SA 240 Gr. 304L	SA 240 Gr. 304L	SA 213 TP 304L (SEAMLESS)	SA 182 F304L	6.941
EXCHANGE R 8	4,35	70 / 48	0,43	38 / 48	5,50	-10/100	1,15	-10/80	510	3946	3050	15	10	15	10	19,05	1,65	260	1	47,5	BEM	4,00	SA 240 Gr. 304L	SA 240 Gr. 304L	SA 213 TP 304L (SEAMLESS)	SA 182 F304L	2.365
EXCHANGE R 9	4,35	70 / 48	0,43	38 / 48	5,50	-10/100	1,15	-10/80	510	3946	3050	15	10	15	10	19,05	1,65	260	1	47,5	BEM	4,00	SA 240 Gr. 304L	SA 240 Gr. 304L	SA 213 TP 304L (SEAMLESS)	SA 182 F304L	2.365
EXCHANGE R 10	0,0482	80 / 65	0,65	50 / 57	0,60	-10/110	FV / 1.0	-10/85	1450	8187	5900	13	13	13	13	19,05	1,65	1089	1	769	BGU	35,27	SA 516-70N	SA 516-70N + SS 316L Clad	SA 213 TP 316L	SA 266-2 + SS 316L Clad	19.866
EXCHANGE R 11	0,825	80 / 48	0,43	38 / 46	1,30	-10/110	1,15	-10/80	400	4746	4000	6	10	6	10	19,05	1,65	106	1	25,4	BEM	1,02	SA 240 GR.304L	SA 516-70N	SA 213 TP.304L (SEAMLESS)	SA182 F304L	1.122
EXCHANGE R 12	3,41	75 / 65	3,35	45 / 65	4,10	-10/130	4,10	-10/100	1440	10232	6400	34	32	34	32	25,4	1,65	909	1	464	BEM	12,37	SA 240 Gr 304L	SA 240 Gr 304L	SA 213 TP 304L (SEAMLESS)	SA 182 F 304L	30.863
EXCHANGE R 13	3,38	54 / 45	0,43	38 / 46	4,10	-10/130	1,15	-10/80	1240	10329	8900	29	13	29	13	19,05	1,65	1148	1	611	AHM	22,60	SA 240 GR.304L	SA 516-70N	SA 213 TP.304L (Seamless)	SA182 F304L	24.990
EXCHANGE R 14	0,37	-22 / 2	3,3	50 / 5	2,50	-25/100	FV / 3.7	-10/100	1300 / 1980	6042	3320	23	21	23	21	19,05	2,108	1021	1	454	BKU	21,21	SA 516-70N	SA 516-70N	SA 179 (SEAMLESS)	SA 266-2	18.451
EXCHANGE R 15	5,89	128.3 / 48	0,6	36 / 48	8,20	-10/160	1,15	10 / 80	1050	9429	7800	35	13	35	13	25,4	2,11	558	1	347,29	AEM	7,24	SA 516 Gr. 70N	SA 516 Gr. 70N	SA 179 (SEAMLESS)	SA 266 Gr. 2	20.966
EXCHANGE R 16	9,33	89 / 48	0,6	36 / 48	10,50	-10/120	1,15	10 / 80	900	10117	8650	38	11	38	11	25,4	2,413	366	1	252,64	AEM	5,99	SA 516 Gr. 70N	SA 516 Gr. 70N	SA 179 (SEAMLESS)	SA 266 Gr. 2	18.326
EXCHANGE R 17	15,53	128.7 / 48	0,6	36 / 48	20,00	-10/120	1,15	10 / 80	1200	5862	3750	98	13	98	13	19,05	2,769	1692	1	379,73	BEM	11,50	SA 516 Gr. 70N	SA 516 Gr. 70N	SA 179 (SEAMLESS)	SA 266 Gr. 2	39.046
EXCHANGE R 18	0,129	125.1 / 48	0,6	36 / 48	2,50	-25 / 150	1,15	10 / 80	520	6741	6000	10	10	10	10	19,05	2,108	156	1	56,02	AEM	0,35	SA 516 Gr. 70N	SA 516 Gr. 70N	SA 179 (SEAMLESS)	SA 266 Gr. 2	2.849
EXCHANGE R 19	0,347	166.3 / 48	0,6	36 / 48	3,50	-25 / 200	1,15	10 / 80	1700	10643	8850	20	13	20	13	19,05	2/108	1820	1	963,91	AEM	9,23	SA 516 Gr. 70N	SA 516 Gr. 70N	SA 179 (SEAMLESS)	SA 266 Gr. 2	36.908
EXCHANGE R 20	0,05	-25 / - 25	1,65	41 / -21	2,50	-33/100	2,50	-25/100	500 / 960	5351	4230	12	10	12	10	19,05	2,11	120	1	62,5	BKU	3,87	SA 516-70N (A20/S5)	SA 516-70N	SA 334 GR.6 (SEAMLESS)	SA 350 Gr. LF2 CL1	3.289
EXCHANGE R 21	1,68	42 / 12	3,15	-3 / 22	2,50	-25/100	3,70	-25/100	820	5462	3750	11	13	11	13	12,7	1,65	1491	1	223	BEM	17,05	SA 516 Gr. 70N	SA 516 Gr. 70N	SA 179 (SEAMLESS)	SA 266 Gr. 2	5.974

EXCHANGE R 22	1,68	42 / 42	1,47	-9 / 15			2,50	-25/100	219	~2400	1500	n/a	8	n/a	8	19,05	2,108	6U	1	1,08	Special	0,05	-	SA 106 Gr.B / SA 516 Gr. 70	SA 179 (SEAMLESS)	SA 266 Gr. 2	VTA
EXCHANGE R 23	0,44	180 / 154	4,86	20 / 40	FV / 1.0	-10 / 250	5,40	-10 / 100	500	2242	860	10	12	10	12	19,05	2,108	308	1	15,86	BEM	1,27	SA 516 Gr. 70N	SA 516 Gr. 70N	SA 179 (SEAMLESS)	SA 266 Gr. 2	1.498
EXCHANGE R 24	4,7	261 / 302	12,3	327 / 327	5,30	-10 / 425	13,70	-10 / 336	390	3192	1830	17	23	17	23	19,05	2,415	48U	1	10,5	BEU	1,59	SA 516-70N	SA 516-70N	SA 179 SEAMLESS	SA 266-2	2.423
EXCHANGE R 25	0,0382	65 / 50	0,43	38 / 48	0,80	-10 / 180	1,15	-10 / 80	1600	9136	7400	13	13	13	13	25,4	2,108	1816	1	1072	AGM	38	SA 516-70N	SA 516-70N	SA 179 SEAMLESS	SA 266 Gr. 2	32.461
EXCHANGE R 26	0,041	69 / 44	0,43	38 / 44	0,35	-10 / 100	1,15	-10 / 80	1740	11334	8820	10	13	10	13	19,05	1,65	2940	1	1552	NXN	40,91	SA 240 Gr.304L	SA 516-70N	SA 213 TP304L	SA 182 F304L	37.900