

Santos

Dorado Development Project

| Project | Dorado Development Project | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Package Title | SCRUBBERS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Reference Number | 0D200-AKR-R-00-SA-000005-001 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Package Description/ Scope of Work | <p>The Dorado Project is a greenfield oil development located offshore WA approximately 150km northwest of Port Hedland comprising of a Floating Production Storage and Offloading vessel (FPSO), Wellhead platform (WHP) and various subsea (SURF) equipment.</p> <p><u>Equipment Particulars:</u></p> <p>Scrubbers are specialist process vessels which have bespoke-designed internals to separate liquids and particulate from gas. The type of scrubbers required for this project are dry type. The removable and upgradable separation technologies are expected to encompass; vortex breakers, cyclonic, diffuser, vane packs and demisters.</p> <p>Supplier shall be responsible for the supply of eight (8-off) specialist pressure vessels including internals, design to AS.1200, fabrication, shop assembly, inspection and testing painting, preservation, packing and delivery incl. provision of documentation for the scrubber package, spare parts, training, technical assistance, and shall provide a guarantee (mechanical and process performance) for the below listed equipment:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Item</th> <th style="text-align: center;">1</th> <th style="text-align: center;">2</th> <th style="text-align: center;">3</th> <th style="text-align: center;">4</th> </tr> </thead> <tbody> <tr> <td>Tag No</td> <td style="text-align: center;">23-VG-0001</td> <td style="text-align: center;">23-VG-0002</td> <td style="text-align: center;">26-VG-0001</td> <td style="text-align: center;">26-VG-0002</td> </tr> <tr> <td>Description</td> <td style="text-align: center;">LP Compressor Scrubber</td> <td style="text-align: center;">MP Compressor Scrubber</td> <td style="text-align: center;">HP Compressor Scrubber</td> <td style="text-align: center;">1st Stage Reinjection Compressor Scrubber</td> </tr> <tr> <td>Size, mm</td> <td style="text-align: center;">1,900 ID x 3,800 T/T</td> <td style="text-align: center;">1,900 ID x 4,800 T/T</td> <td style="text-align: center;">1,900 ID x 4,500 T/T</td> <td style="text-align: center;">1,700 ID x 3,400 T/T</td> </tr> <tr> <td>Est. Dry Weight, kg</td> <td style="text-align: center;">2,900</td> <td style="text-align: center;">10,900</td> <td style="text-align: center;">9,200</td> <td style="text-align: center;">30,800</td> </tr> <tr> <td>Design Pressure, barg</td> <td style="text-align: center;">FV / 6</td> <td style="text-align: center;">FV / 48</td> <td style="text-align: center;">FV / 65</td> <td style="text-align: center;">FV / 207</td> </tr> <tr> <td>Design Temperature, Deg C</td> <td style="text-align: center;">0 / 120</td> <td style="text-align: center;">-25 / 140</td> <td style="text-align: center;">-35 / 140</td> <td style="text-align: center;">-46 / 120</td> </tr> <tr> <td>Materials</td> <td style="text-align: center;">ASTM A516 Gr.70</td> <td style="text-align: center;">ASTM A516 Gr.70 + 316 Clad</td> <td style="text-align: center;">ASTM A516 Gr.70 + 316 Clad</td> <td style="text-align: center;">ASTM A516 Gr.70</td> </tr> </tbody> </table> | | | | Item | 1 | 2 | 3 | 4 | Tag No | 23-VG-0001 | 23-VG-0002 | 26-VG-0001 | 26-VG-0002 | Description | LP Compressor Scrubber | MP Compressor Scrubber | HP Compressor Scrubber | 1 st Stage Reinjection Compressor Scrubber | Size, mm | 1,900 ID x 3,800 T/T | 1,900 ID x 4,800 T/T | 1,900 ID x 4,500 T/T | 1,700 ID x 3,400 T/T | Est. Dry Weight, kg | 2,900 | 10,900 | 9,200 | 30,800 | Design Pressure, barg | FV / 6 | FV / 48 | FV / 65 | FV / 207 | Design Temperature, Deg C | 0 / 120 | -25 / 140 | -35 / 140 | -46 / 120 | Materials | ASTM A516 Gr.70 | ASTM A516 Gr.70 + 316 Clad | ASTM A516 Gr.70 + 316 Clad | ASTM A516 Gr.70 |
| Item | 1 | 2 | 3 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tag No | 23-VG-0001 | 23-VG-0002 | 26-VG-0001 | 26-VG-0002 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Description | LP Compressor Scrubber | MP Compressor Scrubber | HP Compressor Scrubber | 1 st Stage Reinjection Compressor Scrubber | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Size, mm | 1,900 ID x 3,800 T/T | 1,900 ID x 4,800 T/T | 1,900 ID x 4,500 T/T | 1,700 ID x 3,400 T/T | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Est. Dry Weight, kg | 2,900 | 10,900 | 9,200 | 30,800 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Design Pressure, barg | FV / 6 | FV / 48 | FV / 65 | FV / 207 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Design Temperature, Deg C | 0 / 120 | -25 / 140 | -35 / 140 | -46 / 120 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Materials | ASTM A516 Gr.70 | ASTM A516 Gr.70 + 316 Clad | ASTM A516 Gr.70 + 316 Clad | ASTM A516 Gr.70 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| Item | 5 | 6 | 7 | 8 |
|---------------------------|---|--------------------------------|--------------------------------|-------------------------------|
| Tag No | 26-VG-0003 | 43-VD-0001 | 43-VD-0002 | 45-VG-0001 |
| Description | 2 nd Stage Reinjection Compressor Scrubber | HP Flare KO Drum | LP Flare KO Drum | Fuel Gas Scrubber |
| Size, mm | 1,600 ID x 3,200 T/T | 3,400 ID x 13,500 T/T | 2,700 ID x 8,200 T/T | 1,400 ID x 4,300 T/T |
| Est. Dry Weight, kg | 32,500 | 23,800 | 12,800 | 30,800 |
| Design Pressure, barg | FV / 290 | FV / 48 | FV / 4 | FV / 46 |
| Design Temperature, Deg C | -46 / 120 | -46 / 90 | -29 / 170 | -46 / 110 |
| Materials | ASTM A516 Gr.70 | ASTM A516 Gr.70 Epoxy lined | ASTM A516 Gr.70 Epoxy lined | ASTM A516 Gr.70 + 316 Clad |

Pre-Qualification Requirements:

- Must have minimum 5 years' experience in supply to the oil and gas industry.
- Must have a list of past offshore project experience and preferably in delivering to offshore Projects in Australian waters.
- Must have existing capability & capacity to deliver.
- Must have an ISO quality system and OSHAS or similar certifications.
- Must have storage capability for the manufactured products.

Must be able to provide after-sales services during operations in Australia

Specifications and Standards

The equipment shall be in compliance with National, International and Industry Standards, Australian and WA Regulatory requirements including, but not limited to the following;

- NOPSEMA requirements to ensure regulatory compliance.
- DNVGL-RU-OU-0102, DNV Rules for Classification of Offshore Units – Floating Production Storage and Loading Units.
- DNVGL-OS-A101, Safety Principles and Arrangements.
- DNVGL-OS-B101, Metallic Materials.
- DNVGL-OS-D201, Electrical Installation (earthing)

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| | <ul style="list-style-type: none"> • DNVGL-OS-E201, Oil and Gas Processing Systems. • Hull Piping: DNVGL-OS-B101/D101. • Hull Piping fittings: marine shipyard piping construction standard (as approved by Company). • Hull Pressure Vessels: DNV Rules for Classification - Ships Pt 4 Ch 7 “Boilers, pressure vessels, thermal oil installations and incinerators”. • AS 1210-2010 Pressure Vessels, incl. amendment 1 & 2 • AS 1200-2015 Pressure Equipment. • AS 3788-2006 Pressure Equipment - In-service inspection. • ISO. 3702. Control and mitigation of fire and explosions on Offshore Prod Installations. • ISO.15156 Parts 1 to 3 • ISO 13702 - Control and mitigation of fire and explosions on Offshore Prod Installations. • AS/NZS 3000:2018 Electrical installations design, construction and verification minimum requirements from Standards Australia. <p>Compliance with Class Society rules</p> |
| Delivery Place (if applicable) | Singapore |
| Full Scope Expression of Interest Closing Date | 19-Nov-2021 |
| Supplier Instructions | <p>Supplier(s) are to express interest via ICN Gateway where competency and previous positive experiences for similar projects can be demonstrated for equipment of a similar size and service.</p> <p>Supplier(s) will only be considered for receipt of the Tender if deemed suitably qualified by the Company’s Procurement Entity.</p> |
| Contact | <p>All initial enquiries should be made through the Industry Capability Network Western Australia.</p> <p>Ray Loh Ray.Loh@icnwa.org.au +61 8 9365 7499</p> |
| URL | For more information about Santos please refer to their website www.santos.com |