

Package Number	TBA
Package Name	FPSO Physical Digital Twin and Engineering Information Management System - Integrator
Scope of Work (* To be confirmed)	<p>The company request Digital Twin System Integrator (DTSI) having expertise in the project and asset lifecycle.</p> <p>The DTSI scope of work includes , engage with the Company to evaluate and select Physical Digital Twin Solution (PDTS) to the satisfaction to Company’s functional specifications and requirements</p> <p>The DTSI shall have experience on implementing Digital Twin for FPSO / Oil & gas industries; shall have full understanding of the data and the method of data access through the project phase, including develop to a mature stage , understanding the Company systems and provide advise to PDTS provider.</p> <p>The scope for DTSI scope shall include as a minimum:</p> <ol style="list-style-type: none"> 1. Study on Company enterprise Software (s) , Electronic Documents management System, Engineering Information management System and propose if any suggestion for enhancement and strategy for integration with Physical Digital Twin. 2. DTSI shall perform study on Company’s data warehouse, IFS, which performs some aspects of the Engineering Information Management System required, however shall suggest a compatible Engineering Information Management System to provide the additional functionality to meet the required function specifications. 3. DTSI shall develop in conjunction with PDTS for a Engineering Information Management System for interface with data warehouse, the source of engineering master data and documents. The Company identified data warehouse is IFS, although to be evaluated for compatibility and interface with Physical Digital Twin. DTSI shall review the Physical Digital Twin interface with the Engineering Information Management System, to support work planning, SIMOPS, including maintenance and minimize FPSO site visits 4. DTSI to define the detail requirements and further develop the function specs including data interface requirements, synchronisation , configuration , bandwidth study etc. 5. Manage to issue tender to seek a Digital Twin Solution providers, to develop, build, and implement a Physical Digital Twin that consists of a 3D graphical representation of the FPSO physical assets with tag-based links to design, real time operation and maintenance data. 6. DTSI shall perform bid assessment comparing the System Solution providers, play key role in selecting a PDTS provider, satisfaction to Company requirements and functional specifications. 7. Project Management and perform implementation task. 8. Coordinate with PDTS provider, Company and other disciplines throughout the project .

9. Lead to perform Physical Digital Twin testing and closeout to the Company requirements. The DTSI shall be responsible to demonstrate acceptance test procedures both Factory Acceptance Test and Site Acceptance Test.
10. Launch Physical Digital Twin.
11. Post launch Support and adjust as necessary
12. The DTSI shall ensure the Physical Digital Twin design shall be designed to meet the requirements of Cyber security in the oil and gas industry based on IEC 62443 – DNVGL-RP-G108, which in turn is based on the requirements of IEC 62443.

Estimated contract award: Q1 2022 *

Estimated delivery: Q4 2023 implemented onboard vessel, Singapore & Australia*

Project Registration

Santos is committed to ensuring Australian Industry the opportunity to participate in the Barossa Project. Expressions of Interest are invited from contractors and suppliers with the relevant capability and capacity to undertake the scope of work.

This is a request for specific expressions of interest. Contractors and suppliers will be considered for prequalification and tender if suitably qualified against this package.

Scope level definition:

Full scope: Able to produce / supply all the package.

All registrations are to be completed via ICN Gateway BarossaOffshore.icn.org.au. Please contact the ICNNT if registration assistance is required. Contact details: (08) 8922 9422 [or resources@icnnt.org.au](mailto:resources@icnnt.org.au).

Project Website: Santos Australia