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Provaris advances GH2 Carrier engineering design works for delivery in June 2022

Highlights:

- GH2 Carrier engineering design package for Provaris' H2Neo is 70% complete and on track for delivery in June 2022.
- Design package compiled for construction cost and schedule discussions with shipyards in Asia.
- ABS Consultants engaged for gas dispersion, fire, and explosion safety studies for the GH2 Carrier.
- Discussions underway with Class Societies on the design and testing program to achieve Approval for Construction in 2023.
- Preliminary engineering and concept design for port infrastructure solutions required for compressed hydrogen import and export terminals under development
- Provaris will include outcomes in its scoping and feasibility studies which are underway and due for completion in July 2022.

Provaris Energy (ASX.PV1, the **Company)** is pleased to provide an update on the engineering and development of the GH2 Carrier, including preliminary engineering design works for maritime infrastructure solutions for both the export and import of compressed hydrogen.

Martin Carolan, Managing Director & CEO commented: *"The design team for the GH2 Carrier continue to make excellent progress on the final design package for discussions with shipyards, an important milestone to refine our cost and schedule for construction and feed into project studies now in progress. "*

"Management has recently completed a visit to Europe and the UK to market Provaris' compressed hydrogen solution, receiving an encouraging response given our target delivery for 2026. With the demand in Europe for import solutions starting from 2024-2026 the interest in transport solutions has increased given the focus on energy security and new gas infrastructure seeking approvals for gas imports required to demonstrate a hydrogen capability."

GH2 Carrier – Contract Design Package Approaching Completion

Provaris' design team and consultants continue to advance the detailed Contract Design Package (CDP) phase, which is now 70% complete and on track for final delivery in June 2022. The team has compiled several work packages to provide an updated outline specification, general arrangement drawing, and other key design and engineering plans.

Completed work packages are now being shared with shipyards for construction schedule and capital cost estimates, along with Class Societies as part of the Approval for Construction milestone targeted for mid-2023.

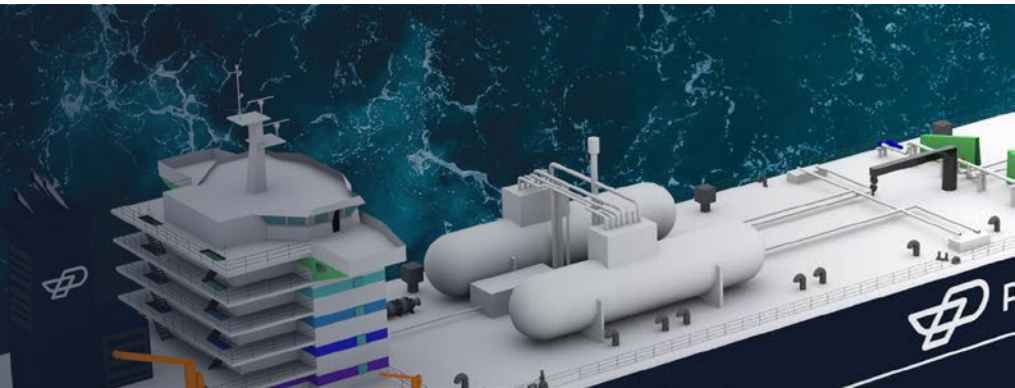
The packages include hull design optimization (speed-power, structural steel assessments, and intact and damage stability), finite element modelling, shipboard safety systems, general arrangement drawings and a ship outline specification. The advanced design of the H2Neo is illustrated in Figure 1 below.

Per Roed, Chief Technology Officer commented: *"The H2Neo engineering and design is now progressed sufficiently to commence discussions with Class for the design of testing and approval for construction. We are also now integrating port infrastructure designs for our supply chain discussions with ports in Asia and more recently in Europe."*

Figure 1: Provaris H2Neo 26,000m³ GH2 Carrier Outline Specification

Class Approvals for Construction

Provaris has engaged ABS Consulting for gas dispersion, fire, and explosion safety studies necessary to allow Class to verify the safety issues of the vessel surrounding its operation, especially in regard to the hydrogen storage tanks and cargo management.



Discussions with Class Societies, including American Bureau of Shipping, are underway on the program required for engineering, risk and safety studies, and testing to achieve an Approval for Construction in 2023.

Port Designs for Compressed Hydrogen

Provaris is now progressing concept designs for the export and import of hydrogen in locations that include Asia and Europe. It is expected that a base design will be adaptable to multiple locations, with site specific access and regulatory requirements a key requirement for customisation.

Provaris has engaged Paaras Marine Solutions, an experienced marine structural engineering company based in Singapore, to develop and assess port solutions for both the loading and unloading of compressed hydrogen using the Provaris GH2 Carriers, with the scope of the appointment to include:

- **Singapore**: concept development of an unloading marine jetty facility in Singapore to receive the GH2 Carriers for unloading and decompression of compressed hydrogen for local distribution. Concept solutions will include jetty solutions abutting onshore and a facility located offshore with subsea pipeline connecting on onshore distribution network; and
- **Port Melville, Tiwi Islands**: evaluating existing marine facilities at Port Melville to accommodate GH2 Carriers including the loading facilities for compressed hydrogen.
- **Barge Storage of Compressed Hydrogen**: concept development of a storage barge will be considered for storing compressed hydrogen based on the requirements for intermittent or redundancy in the supply chain.

Concept designs will be included in the feasibility studies in progress for Tiwi H2 and HyEnergy, along with analysis of compressed hydrogen with port operators now underway in Europe.

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About Provaris Energy

Provaris Energy (ASX: PV1) is the leading developer of integrated compressed hydrogen projects for export to regional markets. Our purpose is to develop green hydrogen supply chains that are simple and efficient to enable the global transport of zero-carbon energy.

Provaris is developing a portfolio of integrated green hydrogen projects, leveraging our innovative compressed hydrogen GH2 Carrier with a focus on value creation through innovative development that aligns with our business model of simplicity and efficiency.

The choice to support all of the development phases of a project is in line with Provaris' strategic desire to develop and invest in profitable hydrogen projects across the value chain, with a measured risk profile, and to retain an equity position of these assets over the long term.