Rass Research as a Service Provaris Energy Ltd

On the cusp of commerciality

Provaris Energy Ltd (ASX:PV1) represents a unique investment opportunity as a leveraged play on the growing shift to alternative energy and carbon reduction, particularly in Europe, but applicable on a global basis. The keystone to production and growth is the company's proprietary 'storage tank' IP, enabling greater volumes of compressed gases to transport at lower cost ('more for less'). The company holds a material early-mover advantage with a number of strategic partnerships and two hydrogen supply, offtake and shipping agreements expected to become unconditional over the next 12 months. Growth and diversification opportunities are readily evident and the growth pathway could be considered somewhat open-ended from an investment perspective. The current focus on Northern European markets is strategic with large addressable markets, diverse monetisation pathways and where political and social acceptance of the need to transition and the availability of capital is high. Importantly, the distance to markets is relatively small in a region with an increasingly integrated infrastructure network.

Business model

Provaris Energy (PV1) is a highly-leveraged play on the energy transition space initially focussing on the growing and highly-integrated energy markets of Europe, using **its proprietary tank storage IP to underpin a fundamental change in the economics of the hydrogen supply chain** – transporting 'more for less'. Compressed hydrogen is considered to be a critical element of the growing alternative energy supply-demand chain and the application of Provaris' IP may well support a quantum change in storage and transport capacity. Using Norwegian renewable energy to produce green hydrogen ensures the business model is compliant with EU fuel standards. Importantly the company is also adopting an innovative, 'capital-lite' financial model based on receiving licence and origination fees as an early cashflow stream with the potential for free-carried equity interests in vessel charter revenue over the life of the contracts.

On the cusp of commercial certainty

The company has two compressed hydrogen projects in train, having secured preliminary supply, offtake and shipping agreements with the expectation that all term sheets will be derisked to unconditional during 2026, targeting first production and supply in 2029. Delivering final investment decisions (FIDs) should be considered a game changer and critical validation of the business model. Provaris is also making significant progress in the carbon capture business stream forming a JV with Yinson Production AS to jointly develop solutions for the transportation and injection of liquefied CO2, leveraging each party's respective core expertise. The success case for the company's somewhat revolutionary tank designs can open multiple markets on a global basis.

We assign a NAV of \$123m (\$0.16/share) at the mid-point

Quantifying early phase businesses is a highly subjective exercise, particularly when predevelopment projects intrinsically retain a material degree of commitment and financing risk. Using the company's 'capital lite' business model with proforma data provided in the ASX release of 18-Feb, we can assign a risked value to the two compressed hydrogen projects of \$46m as a tangible deliverable but note **the potential upside value lies in the Tank Technology IP.** Assigning a value to IP assumes a success-case outcome and application of a risk weighted value multiplier to capture growth options in both hydrogen and CCS business streams. By definition the application of risk weightings and success-case multipliers is subjective and leveraged to potentially material adjustment on operational and corporate outcomes. However, **the business case is heading towards a validation point (FID) over the next 12 months at which point the commercial potential should be defined** and the risk weightings transfer from proof-of-concept to construction and commissioning. Our NAV range is set at \$83-147m (\$0.11-0.19/share) with a mid-point of \$0.16/share.

Initiation of Coverage

Energy

14 July 2025

Share Details					
ASX Code	PV1				
Share Price (11-Jul)	\$0.013				
Market Capitalisation	\$10.1M				
Shares on issue	777M				
Net cash (post raise)	~1.5M				
Free float	~86.2%				

Share Performance (12-months)



Upside Case

- Crystallising of current expressions of interest into term sheets demonstrating the growth potential of the business model
- Delivery of testing and certification of the prototype tank design, underpinning the drive to FID
- Diversification through the development and approvals for innovative LCO₂ tank to meet a surge in CCS infrastructure forecast by 2030

Downside Case

- Prototype tank testing and certification takes longer, delaying commitment to FID
- Slowdown in roll-out of hydrogen and CCS infrastructure resulting in delays to start-up
- Business costs are higher than expected and further financing is required

Board and Management

Managing Director/CEO
Chairman
Non-Executive Director
Non-Executive Director
Company Secretary
tact
+ 61 404 809 019 energy
+61 417 880 680 andrew.williams@raasgroup. com



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Provaris Energy Ltd – Unlocking The Energy Transition

Provaris Energy Ltd (ASX:PV1) is an ASX listed company, representing a unique way to play the energy transition model, through 'playing the technology'. The company holds proprietary storage tank design IP that we believe will cornerstone the expansion of compressed hydrogen as a critical element in the European energy supply chain. On the basis of 'shipping more for less cost' the company has what we consider to be 'disruptor' technology that can address the cost and transport limitations of the current hydrogen operating paradigm. Having already secured key partnerships and term sheets with respect to hydrogen supply^[1] (Norwegian Hydrogen AS) and off-takers (most notably Uniper), the company holds SPAs planned to convert to binding agreements around end-2025 and project start-up in 2029. The company is well placed to leverage the demand push towards renewables and alternative energies across the EU where political, social and financial support is strong. It doesn't stop at compressed hydrogen with a business stream emerging in carbon capture. Material progress has been made by the company in the CCS (carbon capture and storage) market, where a new CO₂ tank design is readily applicable to address the current constraining operational and cost issues with critical agreements with industrial partners Yinson and K LINE secured.^{[2],[3],[4]} The platform for commercial delivery is set. www.norwegianhydrogen.com

www.uniper.energy

Investment Case...A Look Into The Near Future

In our view, Provaris Energy Ltd is on the cusp of a material re-rating that can be delivered over the next twelve months.

From 'now' the company is looking to materially derisk its project portfolio with the most important and underpinning outcome being the completion, testing and certification of the hydrogen prototype tank.

Exhibit 1: The	e time-line l	highlights the	importance	of the next twelve months		
2025		2026		2027 - 2028	2029	
hipping, Appr	ovals, Cons	struction				
Appoint Shipping Pa	rtner; Charter Te Complete Prot Tank & Final C Approvals	erms; Yard LOI otype	Target FID 2H 2026; Newbuild Contract	construction		Target Operations mid-2029 aligned with HPA Offtake
Tri-party Colla	boration -	Norwegian Hy	drogen & U	niper		
erm Sheet 🔗 or Hydrogen PA. Q1 2025	Binding Hydrogen SP4 2H 2025	1	arget FID 2H 2026	construction		Target Operations 2H 2029
Second Norwa	y Supply C	hain Collabora	tion			
Term Sheet for Hydrogen SPA. Q2 2025	Binding Hydrogen SPA 2H 2025	1	arget FID Mid- 2026	construction		<i>Target Operations 1H 2029</i>
Qualify additio	nal H2 sup	ply chain oppo	ortunities			
Source: Compar	ny data					

The company is expecting to progress and complete its tank fabrication trials, where initial works had initially commenced before being halted due to the bankruptcy of the subcontractor responsible for the construction of the prototype tank^[5].

Fabrication is expected to restart imminently with a target of completion and certification by end-2025 followed by final Class certification.



The certification of tank design and operation is the critical result that connects production, shipping and sales, enabling a final investment decision and financing – moving a pre-development project into a construction phase.

The success case should represent the starting domino, although we caution that the path to project startup is not always linear or keeps to the timeline as planned – but all projects have to start somewhere and Provaris has delivered well beyond the conceptual, in our view.

We note recent announcements demonstrating clear progress in the development timelines for Provaris:

Securing a conditional term sheet with Uniper and Norwegian Hydrogen for supply and offtake of 42kt pa of green hydrogen for a minimum of 10 years, to be transported via proprietary H2Neo[™] compressed hydrogen carriers

...the partners are targeting for the term sheet to become binding by end-2025 and unconditional, supporting a Final Investment Decision (FID) in H1 2026.

Progressing a second collaboration MOU for hydrogen supply "...with a Norwegian Joint Venture hydrogen project development company and a major German multinational energy company".^[6] The company is anticipating a Binding Term Sheet by end-2025 and translation to FID from mid-2026.

We note Provaris has established a partnership with K-LINE to advance commercial shipping arrangements, financing and future ownership of hydrogen carriers. In our view, this establishes armslength, industry credibility across a new class of carriers, whilst providing operating experience and bankability to the strategy. We believe this sets a platform to unlock the hydrogen business model.

Delivering these hydrogen project confirmations over the next 6-12 months should provide transformational derisking of the investment case.

Both hydrogen projects are being targeted for start-up across 2029.

Additionally, the company is pursuing growth opportunities in the emerging business stream in carbon capture and storage.

The company has secured an agreement with Yinson Production AS, a leading independent owner and operators of FPSOs worldwide, to <u>"...innovate liquid CO₂ tanks and vessels</u>". The recent acquisition by Yinson of Stella Maris CCS AS^[7], could be interpreted as Yinson signalling an intent to establish itself as a material player in the EU CCS market. Yinson has also entered a strategic partnership with K-LINE to jointly develop maritime and offshore injection solutions for the CCS market in Europe.

Yinson is also providing 100% funding of the Provaris CO₂ tank program.

We note in a news release of 17-June:[8]

"K-LINE Energy Shipping (UK) Limited and Yinson Production have entered into an agreement to jointly develop and market solutions for the transportation and injection of liquefied CO_2 , leveraging each party's respective core expertise. Under the memorandum of understanding (MoU), KLES and Yinson will jointly develop and market a floating storage and injection unit (FSIU) and a liquefied CO_2 carrier. The collaboration will target CCS projects being developed mainly in Europe..."

...and highlight this as an important step in the potential conversion of the Provaris and Yinson strategy to "...deliver bulk liquid tank(s) for floating, onshore and ship-based storage opportunities" to operational reality.

We expect there to be material progress on the commercial definition of the CCS opportunity over the next 12 months as an adjunct to the hydrogen projects but at this time can only hypothesize as to the likely pace and nature of progress.

Whilst we do not infer that Provaris will be a globally dominant player in the provision of innovative tank IP for H₂/CO₂ transport and storage, it is worth stating that the company holds a four-year development head-start on its tank IP and we suggest that competitive alternatives are unlikely to emerge on an 'overnight' basis.

We'd also expect Provaris' developmental advantage to further crystallise after securing Maritime Classification approvals.



A Risk-Adjusted Valuation Range Of \$83m-147m

We ascribe a value range for PV1 from \$0.11-0.19/share **with a mid-point (base case) of \$0.16/share**, noting the closing share price of \$0.013/share (11-Jul) represents a 90% discount to the low end of the NAV range and in isolation can be considered a risk weighting of ~80% to our assigned mid-point value of the hydrogen projects alone.

Compressed Hydrogen	Pr 75%	Low	ed range (As Mid		
Compressed Hydrogen	75%			High	
		\$37	\$46	\$52	Based on the Tri-party Collaboration (Norwegian Hydrogen and Uniper) and the pending additional Norway Supply Chain Collaboration.
Tank technology IP		\$55	\$86	\$104	Based on applying a risk weighted value multiplier to capture the success case growth in both hydrogen and CCS streams.
					Our multiplier range is 2X – 4X – 7X (from low- high)
		\$92	\$132	\$156	
Net cash/(debt)	_		\$1		
Corporate	_		(\$8)		
TOTAL		\$83	\$123	\$147	
Ordinary Shares issued (m) 777		\$0.11	\$0.16	\$0.19	
Ordinary shares diluted (m) 787		\$0.11	\$0.16	\$0.19	Post the settlement of the Yinson placement

Exhibit 2: The NAV range represents a material premium to the market price

Source: RaaS analysis; Risked ranges based on discretionary RaaS risk adjustments

Establishing the nominal value range of a company on a pre-development/production basis is a somewhat discretionary exercise in the absence of direct project analogues or a sector peer group to establish boundary conditions.

We suggest there's an added complexity to defining the range due to the unique business model ('Capital Lite' strategy^[9]) and early-stage nature of the commercialisation strategy – any risk weightings as applied are set at RaaS discretion and should be considered as subjective.

Intrinsically and qualitatively, we think the company looks and feels under-priced based on the segments of the energy transition industry within which it operates, the early-mover technology advantage and increasing progress as represented in development partnerships moving towards commercially addressing the energy transition and CCS markets^{[10], [11], [12]}.

The most tangible methodology to establish, what we would consider to be a base-case valuation is to apply the 'Capital Lite'' model referencing the Uniper Term Sheet parameters provided, as proforma revenue guidance (**Exhibit 3**) against the expected rollout of the compressed hydrogen projects (**Exhibit 1**).

We note that fees are indicative only for modelling purposes and <u>actual outcomes may vary materially on</u> <u>execution of unconditional contracts.</u>

hibit 3: Proforma indicative <u>revenue</u> guidance – transformational to the capitalisation					
Per Supply Project ¹	USD Million	NPV ₈ at FID (USD Million)			
Technology License Fee ²	16.5	14.4			
Equity share of Time Charter Fees ³	18.0	7.9			
Total Per Project	34.5	22.3			
AUD	~54 million	35 million			

Source: Company data

#1 - As per the Uniper supply agreement – 42,500 tpa for 10(+5) years

#2 - 5% of capex paid over 30months and based on current industry models

#3 - 5% of charter rates targeting a rate of return of ~15%

- -- --

We highlight the indicative guidance in **Exhibit 3** is at the revenue line but on a 'Capital Lite' basis and on the assumption that the company is likely to operate on a similar labour 'lite' model, we'd suggest the transfer to EBITDA is likely to be high which we could consider as a direct net cash-flow proxy.



Against a market capitalisation of \$10.1m (close trading 11-Jul), crystallisation of the compressed hydrogen opportunities alone as per **Exhibit 3** (*'a risked value to the two compressed hydrogen projects of \$46m'*) would support a look through market-cap multiple of ~4.5x based on the valuation assumptions and likely timing to FID.

The company has indicated it is well progressed on converting a second collaboration project.

In practical terms, it's too early to nominally 'back-solve' the commerciality of the CO_2/CCS opportunities on a stand-alone basis although the securing of Yinson as a partner provides an initial third-party validation of the application of the technology to the CCS industry and the investment made to fund 100% of the programme.

The key feature and operating advantage we ascribe to Provaris is its innovative tank design IP.

As an intangible, assigning value to IP is subjective on a generic basis. A cursory web search provides a number of alternative methodologies, but essentially it relies on 'converting IP' to a cashflow stream.

We highlight a variety of methods typical of available guide lines noting that all rely to varying extents on forecasts related to the rate of commercialisation and operating assumptions which are intrinsically subjective with the potential for material changes on actual operating outcomes.

Exhibit 4: Typical methodologies applied to valuing IP

	Advantages	Disadvantages
Income Approach	Directly links IP value to economic contribution. Easy to understand and communicate.	Requires detailed financial forecasts. Sensitive to changes in discount rate and economic conditions.
DCF Method	Provides a detailed, quantitative valuation. Widely accepted and understood.	Relies heavily on accurate cash flow projections. Can be optimistic if risks are underestimated.
Venture Capital Method	Useful for high-growth potential startups. Captures value where traditional methods aren't feasible.	Highly speculative and dependent on future growth and market conditions. Relies on exit scenario assumptions.
Relief from Royalty Metho:	Straightforward if comparable data is available. Links IP value to real market conditions.	Requires accurate comparable market data. May not reflect unique IP features.
Real Options Method	Captures the value of flexibility in decisions. Highlights strategic value in uncertain environments.	Complex and requires advanced quantitative skills. Potential for overvaluing IP due to optimistic future options.

Source: etonvs.com; [RaaS highlighting]

For this exercise we use an adjusted DCF methodology based on our initial, weighted success case modelling of the compressed hydrogen projects targeted for FID from mid-2026.

In preference to modelling a rollout schedule of additional compressed hydrogen or CCS projects which would contain inherent and compound uncertainties associated with operating assumptions, we choose to apply a success case multiplier (range) to reflect the pre-cash-flow nature of the hydrogen commercialisation whilst also addressing the CCS (and other) potential.

We have applied a probability weighting over a nominal multiplier range of 2-(5)-10x, which represents lowmid-high success cases. If the company is successful with its initial rollout for its compressed hydrogen projects, the commercial risk for future growth will likely be low in a market that in practical terms could be considered open-ended.

As the technology is proven, the limit to growth will likely be constrained by the pace at which new tanker vessels can be manufactured and an upside to 10x ('unrisked') is not an unreasonable expectation, in our view.

We reiterate the highly subjective nature of this analysis, particularly on a pre-development, non-binding basis and reiterate that the range as noted is subject to material adjustment as current projects advance to FID and new opportunities begin to firm.



An M&A scenario thought exercise...is Provaris a potential target?

As a thought exercise, we believe it is worthwhile pondering a corporate play scenario, as simply the success case is potentially materially larger than the current capitalisation (\$10mn) of the company.

In very simplistic terms the 12-month outlook for the company could be considered as binary – prototype tank certification is delivered, hydrogen projects reach FID and the company is on the pathway to first cashflow...or it is not.

Certification and FID outcomes materially derisk the company's IP which would be proven and demonstrably commercial and logically should deliver a material rerating of the share price, considering the growth opportunities in multiple streams and early-mover technology advantage.

"...large addressable markets with multiple revenue streams and monetisation pathways"

Historical and personal market observations suggest the most difficult share price re-rating period for small companies comes during the proof-of-concept phase and often requires evidence of cash flow, which under the company's Capital-Lite model come as an initial and early technology licence fee consisting of:

5% on the capex for the $H2Neo^{TM}$ carrier and $H2Leo^{TM}$ barge, for the proprietary ship and tank design, based on the well-established and proven LNG containment tank licensing model. <u>Providing upfront revenue and</u> <u>early cash flow during the 30-month construction period'</u>.

We would not suggest the PV1 share price to necessarily rerate in the order of magnitude as indicated in our assigned NAV, which captures an intrinsic growth multiple, until the evidence is demonstrated through cash flows and new project commitments. But a lagging share price on a materially derisked business plan could draw attention from larger, well-funded corporates from an acquisition perspective as a method of entry into or potential to become a strategic player in the global energy transition and CCS space.

Our observations of the listed energy space on a global basis, would suggest larger companies more often would rather pay a premium for proven outcomes than a discount for residual risk, or own 'IP' rather than be a licensee on the same basis.

We highlight that this is a strongly hypothetical scenario only, particularly given the early-stage nature of the technology and distance to FID, but <u>on a success case driving commercial derisking</u> we think it is not unreasonable to at least contemplate the value of the IP in a M&A sense.

We note the scenario as outlined above remains highly uncertain, somewhat long-dated, and subject to a significant number of commercial and share market outcomes that may or may not occur; and may not translate to corporate appeal under any circumstances.



SWOT – Strengths Outweigh Weaknesses

Exhibit 5: SWOT analyses - building momentum into the growing 'global energy transition' market

Strengths 'Clean and Green' H ₂ leveraged play to European	Comment If H ₂ as an alternative fuel is going to work, then it will work in Europe, where political and soci
renewables and alternative energy policies - the low C transition.	acceptance; and investment financing is readily available. Distance to markets is small in a increasingly integrated infrastructure networ
	EU has committed some €138 Bn for industry support on infrastructure whilst setting legislativ quotas for the use of green H₂. Utilities have announced >€40b of planned investment
MOUs and partnerships with critical and notable European industrials across the value and business chain.	Norwegian H ₂ production for supply (Norwegian Hydrogen AS) and German utilities (notab Uniper) for offtake. We add the collaborative agreement with Global Energy Storage on a dedicate compressed H ₂ import facility in Rotterdar
Proprietary tank IP is a game changer	Compressed H ₂ is deemed as 'crucial' for the hydrogen supply chain. Tank design meets EU RED I compliance standards. Scale up options for storage from 5-10 tonnes are potentially achievable * <i>RED</i> = <i>Renewable Energy Directive</i>
underpinning a material early-mover advantage.	No obvious competing projects across the project chair
Demonstrated lower capex	robotic handling and laser-welding noted as the key aspects for lowering capex, being significant less labour intensive. Targeting an 80:20 capital cost split (material/labour)historically 50:50
Demonstrated higher tank capacities	moving more for less cost and not limited to the hydrogen market. Shifts the product source 'gaseous' hydrogen rather than ammonia or methanol with increases in unit energy per carg
Innovative, 'capital lite' (early cashflow) business model.	Partnering with ship owners to avoid large capital commitments. Shipping fleet to be funded by thir parties with the company receiving revenue from Technology Licence and Origination Fees (5% capex) and a free-carried equity interest (5%) in the vessel charter rates over the life of the contract
Roll-out of material news flow over the next 12 months	including but not limited to - delivering unconditional terms sheets for H ₂ supply, offtake ar shipping; completion of prototype tank construction with final approvals; completion of CO ₂ conce design; charters and small-scale tank production (Norway
Weaknesses	Comment
Not necessarily in control of the process or the timetable.	Pace of progress post-FID will in a practical sense, be determined by the manufacturing aspects the overall project - tanks, ship-builds, import facilitie
Company financing remains (still) largely dependent on equity markets in the short-term.	Early cashflow from Licence and Origination fees can obviate the pressure on equity capital financin but in a potentially rapid growth scenario we can't discount the risk of greater cost
Market currently applying a high-risk weighting to the project opportunities.	Markets are waiting for the de-risking event, likely to be the delivery of unconditional supply an offtake agreements around end-2025. There is currently nothing obvious to suggest, given th progress to date and commitment of partners that project certainty could not be delivered in the timefram
Awaiting completion of tank fabrication trials	The prototype is critical in the commercialisation process, particularly in underpinning the licencin model and final carrier design
Is there an acquisition opportunity unfolding here?	As an early-mover with an industry changing technology, the nominal potential of the company as a acquisition opportunity seems reasonably strong. But as an early-adopter in an emerging mark segment, it's likely that any corporate interest would be dependent on commercial derisking which realistically dependent on commercial demonstratior
Opportunities	Commen
Europe is a growth opportunity of 'scale'.	From an investment perspective, the growth opportunity could be considered open-ende
	Germany is projected to require >70% of its anticipated future H ₂ demand from import
more 'in-bound' interest.	A second H ₂ supply project (Nordic supply - German offtake) is progressin nominal inquiries for >150kt pa from 'Nordics and Spain' with German utilities looking for 2030
CCS is a growing opportunity	A new product market opening for offshore CCS. A binding Joint Venture ('NewCo') opportunity wi Yinson Production is a key step-forward, evaluating larger scale storage and transport options for
	CO
with upside.	Scale and reduction in storage and transport costs are key to achieving CO ₂ capture targets for industries. Growing the global CCS market will need a transformational change in transpo- technologies (specialised tankers) to link 'emissions to storage
Threats	Comment
Funding - companies on a pre-cashflow basis are dependent on external financing.	Equity raising and shot-term debt funding options remain on the table and the quality of ar partnering outcomes naturally comes down to price
Commitment of EU and nominated countries to maintain infrastructure roll-out and legislative/financial support.	The current global political landscape is volatile and alternative ('green') energy supply has to quick become cost-competitive on an holistic basis. In an evolving energy operating environment, th financial commitment to material infrastructure reform is likely to be high, with the cost benefi potentially long-dated. It is perhaps, a somewhat easy target for budget cut
Success breeds competition and the potential for competing technologies and developments is high in an emerging industrial segment.	Successful roll-out on a commercial basis, will bring investment and competition particularly fro major energy companies (utilities and upstream), with significantly greater capital resources. Althoug PV1 holds a material early-mover advantage, 'it's engineering' and all engineering problems can be solved by the application of capital. The early-mover advantage should underpin a significan investment window but is not infinit

Source: RaaS commentary and analysis



Provaris Energy – A Project View

Tank technology drives the business model

To paraphrase Theodore Roosevelt – "Nothing worth having comes easily" or quickly.

Provaris has been working on its businesses cases for leveraging the energy transition through compressed hydrogen and tanker innovation for the better part of five years, identifying that innovation to simplify and raise efficiency in the generation and transport of green fuels, could address the cost limitations overlying the sector, crucially in hard-to-abate industries.

Having evaluated and pursued a number of stand-alone projects, including in Australia, the company's chose to focus on development opportunities in Europe, having identified completed feasibility studies to determine that compressed (green) hydrogen could be economically transported into existing port locations in Europe to leverage a proposed interconnected network through the continent.

Underpinning the model, the company has spent significant resources on the design of a bespoke compressed hydrogen carrier (H2NeoTM) which received design approval from the <u>American Bureau of Shipping (ABS)</u>^[13]. The carrier capacity is set at 26,000m³ / 450t.

Reference (ABS): https://ww2.eagle.org

As described, the H2Neo vessel will contain "...two large-diameter cylindrical tanks, one in each of the port and starboard cargo holds with a maximum allowable operating pressure of 250 bar...(for hydrogen) carried at ambient conditions".



Exhibit 6: Schematic of H2Neo design illustrating fit of commercial size tanks

Source: Company data

The <u>250-bar litre rule</u> serves as a benchmark for protection and overall performance in the pressure vessel industry. Specifically, it outlines the minimum requirements for the design, fabrication, and inspection of vessels to ensure they can adequately contain gases or liquids at pressures as high as 250 bars. This rule guarantees that vessels are not only built to handle operational pressures but also include a margin of safety.

Reference: www.redriver.team/understanding-the-250-bar-litre-rule/

A bar is a metric unit of pressure that is defined as exactly 100,000 pascals. It is equal to 0.987 atmospheres (101,325 Pa), the unit often used as a reference of standard pressure.

The operational advantage lies in the patented tank design which is composed of nested (overlapping) layers of steel, including a stainless-steel inner layer as protection from hydrogen embrittlement. This nesting is designed to ensure sudden through-wall cracks or ruptures are an unlikely (low probability) occurrence.

The multi-layered tank has been designed to integrate readily into the hull of a conventional mid-range tanker which benefits the construction process.

The company is pursuing design optionality through two additional vessels – $H2Max^{TM}$ (120,000m³/ 2,000t) and a compressed hydrogen floating storage solution – $H2Leo^{TM}$ (300-600t)^[14].

Of particular importance is the H2LeoTM vessel, planned to be utilised in the Norwegian Hydrogen-Uniper venture for hydrogen bunkering, effectively smoothing the supply chain and as described "...(i)ts SIMOPs (simultaneous operations] capability allows for continuous production and discharge operations".



Exhibit 7: The portfolio of ship designs and capacities. H2Neo/H2Leo planned for startup

H2Leo (Storage)	H2Neo	H2Max
300 to 600t (at 250 bar)	26,000 m³ at 250 bar(450t)	120,000 m ³ at 250 bar (2,000t)
✓ AiP Received 2023	 ✓ AiP Received 2021 ✓ Design Approval (FEED) 2022 	 AiP Received 2021 Design Approval (FEED) 202- (scheduled) Effective Shipbuilding Contracts 2027 (target) First operations 2030 (target)
n/a	200,000 tonnes pa	950,000 tonnes pa
n/a	Up to 2,000 nautical miles	Up to 3,000 nautical miles
	300 to 600t (at 250 bar) AiP Received 2023 n/a	300 to 600t (at 250 bar) 26,000 m³ at 250 bar(450t) ✓ AiP Received 2023 ✓ AiP Received 2021 ✓ Design Approval (FEED) 2022 n/a 200,000 tonnes pa

Actual importation volumes can be multiples of the above "fleet" production facility capacities.

Source: Company data

The vessel H2LeoTM vessel is being designed as a "...flexible hydrogen floating storage unit that can be optimised in size, capacity, and operations for different applications".

The H2Max[™] vessel will have a capacity up to 120,000m³ to be utilised for projects requiring up to 950 kt pa.

Exhibit 8: Operational layout demonstrating bunkering utilisation



Source: Company data

The remaining piece of the puzzle is tank testing and certification^{[6],[13],[14],[15],[16]}

The successful completion of prototype testing will support delivering a Final Class Approval for the ship designs and as a critical milestone in the commercialisation of the proprietary tank design, underpinning:

- Future licensing and revenue opportunities,
- Third-party validation, and
- Acceleration of carrier design approvals and project deployment for both hydrogen and CO₂.

The prototype design is for a multilayered 2.5m diameter tank, 11m in length with a capacity to store 650kg of hydrogen at 250 bar. The tank will consist of 8 x 10mm-thick, carbon steel plates with an inner (3mm) stainless-steel liner and will be constructed using two laser welding robots, one material handling robot and a scalable, custom hydraulic jig.

We cite commentary from the 2024 Annual Report -"...(u)sing innovative construction methods and material(s)...the prototype tank achieved a 30% weight reduction (which) enhances the tank's structural efficiency (and supports) significant fuel savings and emission reductions".

It is expected that the prototype tank design in combination with the automated (laser-welding) construction process, will enable Provaris to scale tanks to the size required for the H2Neo[™] carrier.



Exhibit 9: Tank fabrication schematic...look, no hands



Source: Company data

Production located in Norway, using robotic handling and laser-welding have been identified as the key aspects for lowering capex being significantly less labour intensive. The company is targeting an 80:20 capital cost split (material/labour) versus an historic ratio of around 50:50.

In July 2023, Provaris awarded a contract to Prodtex AS as a Technology Collaboration Partner and contractor to develop the prototype-scale tank, alongside <u>SINTEF</u>, noted as Norway's leading independent research organisation.

Reference: www.sintef.no>en

Whilst reported progress was proceeding according to schedule, in Jun-2024, the Prodtex subsidiary, Prodtex Industri AS (Prodtex Industri), responsible for constructing the prototype tank and operating the Fiska facility, announced bankruptcy bringing construction to a halt.

Through the first half of 2025, Provaris has been able to advance the final agreements to resume prototype fabrication operations, importantly securing a lease agreement which includes access to the robotic laser-hybrid welding infrastructure and could support potential expansion capacity for the construction of small-scale hydrogen tanks and; pilot and demonstration designs for liquid CO_2 tank development.

At all times, under the Prototype Tank Contract the IP being developed remains the property of Provaris.

ABS and **Det Norske Veritas (DNV)** have been appointed to jointly certify the project and provide final Class Approvals. The testing phase must ensure that the "...full-scale tank design can safely store hydrogen, undergoing rigorous fatigue and over pressurisation tests that simulate 25 years of operational use".

Reference: www.dnv.com



Starting with hydrogen from production to offtake and distribution

Compressed hydrogen opportunities are the most advanced business stream of the company. The company is targeting two project sanctions (FIDs) from H2 2026 with concurrent start-up timing around H2 2029.

The most advanced from an unconditional perspective being the 'Tri-party Collaboration' (**Uniper** and **Norwegian Hydrogen**), under an initial MOU signed in Aug-2024, with a Term Sheet in Jan-2025.

Norwegian Hydrogen is now an established producer green hydrogen supplier in Norway with its foundation project, the Hellesylt Hydrogen Hub Pilot-E project becoming operational in 2024.

<u>Sourcing hydrogen supply from Norway is a critical aspect of the business model</u> with production utilising low cost, renewable power provided from a stable generation platform to deliver green-hydrogen meeting the EU RNFBO certification standard.

To that end, a MOU between Provaris, Norwegian Hydrogen and Uniper has been agreed for continuing collaboration to develop (additional) supply of hydrogen from the Nordics to import hubs in north-western Europe.^[19] The terms of the current MOU are **non-exclusive and non-binding**, with the intention to progress to binding agreements as required for the supply and offtake of hydrogen, along with the necessary agreements for shipping with the H₂ Project.

We quote "...(t)he Parties intend to collaborate to explore the possibility of Uniper off-taking RFNBO compliant H_2 from export projects being developed by Norwegian Hydrogen in collaboration with Provaris – (t)he supply and transport is targeted [for] delivery to a port defined by Uniper utilising Provaris' GH2 Carriers and GH2 Storage barges".

The FjordH2 Project in the Alesund region (Norway) has been selected as the preferred site for hydrogen generation, having been the subject of a detailed feasibility completed in 2023.^[20]

Renewable Fuel of Non-Biological Origin (RFNBO) is a legal classification under the EU Renewable Energy Directive (RED II and RED III) that refers to liquid and gaseous fuels produced from renewable electricity and not derived from biomass or any other biological feedstock. RFNBOs include synthetic fuels such as ehydrogen, all of which play a crucial role in the decarbonisation of transport and industry, especially in hardto-electrify sectors.

The RFNBO label ensures that a fuel is not only renewable but also produced under strict **sustainability and greenhouse gas (GHG) emissions criteria**, enabling it to qualify for EU renewable energy targets and regulatory incentives.

According to the EU Renewable Energy Directive, an RFNBO must meet the following conditions:

- It is **produced from renewable electricity**, such as wind, solar, hydro, or geothermal.
- It is **not of biological origin**, meaning it does not rely on crops, waste, or biomass.
- It qualifies under EU guidelines for additionality, temporal correlation and geographical correlation, as set out in the RED Delegated Acts adopted in 2023.
- It delivers GHG emission savings of at least 70% compared to fossil fuels on a full life cycle basis.

RFNBOs are recognised as key to achieving EU climate neutrality by 2050.

Source:www.hy5.energy

Provaris-Norwegian Hydrogen-Uniper - there is a Term Sheet[21],[9]

Provaris, Norwegian Hydrogen and Uniper have agreed a conditional Term Sheet for the supply, transport and offtake of RFNBO-compliant hydrogen, with the aim to complete negotiating a binding agreement in H2 2025 to support an FID outcome around mid-2026.

The Term Sheet remains conditional upon the negotiation and execution of a fully termed Hydrogen SPA and obtaining all necessary approvals.

The proposed hydrogen export volume will be ~42,500 tonnes per annum utilising Provaris' H2Leo barge storage to optimise production and a fleet of two H2Neo carriers for the *"efficient and cost-effective"* transport *"…limiting the losses in the supply chain from electrolyser to the distribution pipeline in Europe"*.



Uniper is to be responsible for the selection and development of the import terminal and working in collaboration with Provaris to identify the capital and operating equipment needed for offloading, including estimates of required storage capacity and connection to the 'European Hydrogen Backbone' [Refer Appendix B].

Key elements of the Uniper Term Sheet -

Seller	Norwegian Hydrogen or a special purpose vehicle which may include Provaris.
Product & Certification	Certified hydrogen based on RFNBO requirements.
Annual Contract Quantity	42,500t pa after an agreed build-up period
	After reaching the contract rate, 'Take or Pay' provisions apply for the Minimum Annual Quantity.
Shipping	Seller shall deliver each cargo of RFNBO-compliant compressed hydrogen using ships transporting up to 450t per cargo, compatible and compliant with the requirements of the Buyer's agreed receiving terminal.
Delivery	On a 'Delivery at Place' (DAP) basis with the Buyer to provide all required facilities and connections for the take-off and injection into the envisaged European hydrogen transport pipeline system.
Term	10 years with extensions of five years by mutual agreement.
Contract Price	Contract Price will be set at a fixed price level with annual price reviews.
Target Milestones	H2 2025 – Binding conditional Hydrogen SPA Early 2026 – Unconditional Hydrogen SPA H2 2026 – Targeting Final investment Decision Ready for start-up (RFSU) – H2 2029

...and we like a tri-party collaboration so much, why not a second?[22]

The company has announced another non-binding MOU with a Norwegian joint venture hydrogen project development company and a major German multinational energy company, targeting an import location in North-West Europe and leveraging the template used in the Provaris-Norwegian Hydrogen-Uniper (P-NH-U) venture.

In broad terms, the project is scoping target supply 30,000t pa utilising RFNBO compliant hydrogen.

Anticipated milestones are as schematically outlined in **Exhibit 1** with a Binding Term Sheet by end-2025 and an FID target of H2 2026.

The company will be responsible for developing the storage and shipping solutions for the project but it appears likely to twin the P-NH-U project in terms of utilising a single H2Leo barge and up to two H2Neo carriers operating under commercial charter terms aligned with the duration of the potential offtake SPA (as per the 'Capital Lite' operating model).

The model doesn't stop at H2...adding CO2 storage and transport

Whilst still a comparatively early-stage business stream, the company has announced material progress in the CCS (carbon capture and storage) market, where the tank design ('more for less') is readily applicable to address the current constraining operational and cost issues associated with CO_2 sequestration.

CCS has been described as a *"…vital decarbonisation tool"* in a sequestration segment forecast to grow from 62Mt pa to potentially 270Mt pa by 2030 but still only representing ~6% of global emissions.^[12]

The opportunity to further leverage the company's technology is obvious.

The company has secured an agreement with Yinson Production $AS^{[3]}$, a leading independent owner and operator of FPSOs worldwide, to <u>"...innovate liquid CO₂ tanks and vessels"</u>. Having recently completed the acquisition of Stella Maris CCS $AS^{[7]}$, we suggest Yinson is clearly signalling an intent to become a material player in the EU CCS market via the **Havstjerne CO₂ injection and storage project**, which was selected for a (conditional) <u>€225m grant</u> from the EU Innovation Fund.



The Havstjerne CO₂ injection and storage project is a cutting-edge carbon capture and storage (CCS) initiative located in the Norwegian North Sea, about 135km southwest of Stavanger. It is part of a broad initiative to help Europe meet its climate goals by providing large-scale, flexible CO₂ storage infrastructure.

The project concept is holistically simple – collect CO_2 from emitters across Europe, <u>transported by specially</u> <u>designed ships</u> for injection into a subsea reservoir via a Direct Injection Unit.

The project has secured up to ≤ 225 million in grant funding from the EU Innovation Fund for what is said to be 'the first-of-its-kind large-scale solution for CO₂ sequestration using shared, flexible offshore infrastructure'.

The project has the acronym "STARFISH" (Sequestration Technology And Reservoir: Floating Injection and Storage in Havstjerne) and is part of a broader Stella Maris CCS initiative, focussing on an open-access CO₂ storage concept capturing emissions from multiple sources for storage in the Havstjerne reservoir.

Phase 1 expected to enable the storage of 42.75Mt of CO_2 -equivalent (CO_2e) over the first 10 years. This effort is projected to avoid 42Mt of CO_2e emissions, with a relative greenhouse gas avoidance potential of 98%.

STARFISH is noted as the first offshore CO₂ storage project designed to <u>transport liquid CO₂ via purpose-built</u> ships directly to an offshore reservoir.

 $Source: https://www.offshore-energy.biz/first-of-its-kind-open-access-co2-storage-concept-gets-{\mbox{\sc e}225-million-eu-support} to the second s$

It is easy to reconcile the business growth potential associated with a joint venture success case underpinned by contracts with the Havstjerne CCS initiative.

As an adjunct to the Provaris and Yinson collaboration agreement, the companies will secure a strategic alignment of interests through the establishment of a new joint venture company (NewCo) to "...hold exclusive rights to the tank design, fabrication methodology and all future IP generated for tank designs".

Provaris and Yinson will own NewCo on an equal share (50:50) basis.

A key aim of NewCo is to explore "…leveraging the scalable design features of the LCO2 (liquid CO_2) tank IP to develop additional tank designs of different capacity, including those for LCO2 carriers (shuttle tankers) and onshore storage applications".

As part of the establishment of NewCo, Provaris will issue 10m ordinary PV1 shares to Yinson, at zero consideration, "...for Yinson's ongoing commercial, technical, and global market commercialisation support".

We interpret the establishment of a JV company as providing critically important and early third-party validation of the tank technology and basis for application.

In comparison to the compressed hydrogen business stream, the LCO2 tank progress is very early stage but with the intent to crystallise a JV with Yinson, Provaris has put a very tangible marker down on a new growth initiative, in a business segment that could be considered very open-ended in terms of opportunities.

Although Europe is the key geographical focus for Provaris, the Yinson JV provides for transference of the company's innovate tank IP to a global platform, particularly with small but growing initiatives on CCS in the Asian region.

The joint venture has successfully completed the Phase 2 Design Stage (on time and budget) having made a submission to a Marine Classification Society for preliminary Class approval, which will enable the transition to a formal FEED process.

The FEED stage will involve incorporating the LCO2 tank design into a Floating Storage Injection Unit (FSIU) currently under development by Yinson.

We deem this design phase to be critical in progressing towards commercial and operational readiness.

A primary focus will include optimisation of the tank design in terms of steel weight, hull integration and fabrication, leveraging Provaris' hydrogen tank template (material handling and laser welding robotics).



The LCO2 tank will be designed to deliver -

- Storage capacity for low-pressure LCO2 more than double the size currently available for bulk-scale maritime storage and transport;
- Simplification of the process engineering and associated equipment to lower capital and operating costs whilst increasing the capacity of LCO2 carriers and other floating storage assets;
- A design that meets the stringent International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code). Similarly, materials have been selected according to the IGC Code; and
- Reference: www.imo.org The integration of larger low pressure tanks to reduce vessel capex (through removing the process equipment required on larger numbers of small capacity tanks) and target lower freight costs.

We cite commentary from Provaris Managing Director Martin Carolan:

"Innovative liquid CO_2 tank designs can be a game-changer for the industry given long-term CO_2 shipping demand is significant, with the EU targeting 170Mt pa of CO_2 transported by 2050, potentially requiring up to 200 LCO₂ carriers and US\$30bn in investment."

...and there are other opportunities afoot.

Port of Rotterdam^{[23],[6]}

As announced on 9 Apr 2024, Provaris and Global Energy Storage (GES) Energy entered into a "...collaboration agreement to develop a gaseous hydrogen import facility at the GES terminal in Rotterdam" capable of importing both refrigerated ammonia and compressed hydrogen, with redeliveries into barges, rail, truck and the hydrogen grid.

Source: www.gesgroup.global

Rotterdam was identified as being "...the largest energy import terminal globally" and optimally situated as an import location for large-scale green hydrogen given its planned direct connection to the HyNetwork hydrogen grid currently under construction.

Under this collaboration, GES and Provaris are undertaking a comprehensive pre-feasibility study to develop a Concept Design "...for an initial 40,000t pa compressed hydrogen import project, including options for hydrogen storage at the terminal".

The company has declared the pre-feasibility completed in Q2 2025 and co-marketing underway with "...full access to European markets by 2028".

GES will finance and own the multi-product terminal.

Under the terms of the study Provaris would be responsible to oversee the transportation of hydrogen with GES responsible for the discharge and storage of hydrogen from these carriers and its injection into the hydrogen grid.

The success case would see Rotterdam become the world's first terminal for bulk scale import of hydrogen that can potentially accelerate the rollout of alternative energy and support the continuing development of the European Hydrogen Backbone initiative.



Board and Management

The energy transition space is a comparatively new industrial and business paradigm but accelerating with respect to commercial growth opportunities and demand, particularly in alternate energy sources (in this case compressed hydrogen) and decarbonising more traditional and difficult to abate industries. The scope for creation and implementation of new technologies and development of integrated business models is somewhat unprecedented. For Provaris to maintain its technology early-mover advantage whilst pursuing growth options is going to require focussed and innovative commercial strategies and continuing R&D. We believe the company has a board and management with strong technical and business expertise and success in project implementation to deliver projects of scale in the hydrogen and carbon-capture sector – from the technical through to the financial.

Board

Managing Director/CEO: Martin Carolan - B.Bus (Banking and Finance), G.Dip (Applied Finance)

Martin was appointed as an Executive Director and CFO in 2019 and was elevated to the MD/CEO role Jun-2021. He has been involved in Provaris since the company's inception in 2016, firstly as an advisor and founding shareholder, before joining the Board, responsible for corporate strategy and finance.

Mr Carolan brings extensive capital markets and corporate strategy experience having worked in the Australian capital markets for over 15 years, and consulting to large corporates prior to his career in finance.

Non-Executive Chair: Greg Martin – B.Ec, LLB, MAICD, FIML

Greg was appointed to the Board on 1-Feb-2022 and brings to the role over 40 years' experience and executive responsibilities across a diverse range of areas (utilities, financial services, energy and energy infrastructure) in Australia, New Zealand and internationally.

He previously held the role of CEO/Managing Director of AGL for five years with extensive and diverse experience from Board and Senior Management positions across a range ASX and non-listed entities including Iluka Resources (ASX:ILU), Santos Limited (ASX:STO), Murchison Metals Limited, Hunter Water Corporation, One Rail Australia Limited, the Sydney Desalination Plant, Prostar Capital, Everest Financial Group, NGC Holdings Limited (NZ), Empresa de Gas de la V Region S.A. (Chile) and Kyungnam Energy Co. Ltd (South Korea).

Greg has previously been a Member of the COAG Energy Appointments Selection Panel, Chairman NT Gas Pipeline and Natural Gas Corporation of New Zealand.

Mr Martin is currently Chairman of Sierra Rutile Holdings Limited, (ASX:SRX), and EngAige Pty Ltd and is a Non-Executive Director of Power & Water Corporation and Mawson Infrastructure Group Inc., (MIGI:NASDAQ)

Non-Executive Director: Andrew Pickering – B.Sc (Environ Sci), M.Sc (Environ Man)

Andrew was appointed to the Board on 1-Jan-2021, after senior roles with Stolt-Nielson Limited (<u>www.stolt-nielsen.com</u> [SNI.OL]) and the founding CEO of Avenir LNG Limited (<u>www.avenirlng.com</u>), bringing to the board extensive and specific application experience in shipping and logistics, transportation, storage and distribution solutions for bulk-liquid in a global context.

Non-Executive Director: David Palmer - M.A (Economics), Exec MBA

David was appointed to the Board on 1 Nov 2021 and brings critical and broad-based experience across the shipping industry, with John Swire and Sons (<u>www.swire.com</u>.), Stolt-Nielsen, Wah Kwong Holdings (as CEO [www.wahkwong.com.hk]) and COO/CFO of Britoil Offshore Services Pte Ltd (<u>www.britoil.com.sg</u>); and in capital markets as CEO of Pareto Securities Asia (<u>www.pretosec.com</u>), in corporate strategy and M&A.



Exhibit 10: Directors' holdings

	Latest ASX Notice	Fully Paid Ordinary Shares	Unlisted	Options	Performance Rights
			PV1 AC [^]	PV1 AO*	PV1 AM⁺
Martin Carolan	04/03/2025	19,000,000	625,000	83,334	5,000,000
Greg Martin	04/03/2025	7,000,000	1,250,000		
Andrew Pickering	04/03/2025	4,950,000	375,000		
David Palmer	04/03/2025	5,300,000	625,000		

Source: Company data (holdings as of last ASX releases)

Unlisted Options (PV1 AC)⁺: ex-price \$0.066, ex-date 08/05/2027 Unlisted Options (PV1 AO)⁺: ex-price \$0.075, ex-date 11/07/2026

Performance Rights (PV1 AM)+: vesting determined against a series share price benchmarks

The corporate structure is clean and currently consists of 698m ordinary shares and up to ~71.7m unlisted options and performance rights with the options currently sitting out of the money.

As with all small companies seeking growth opportunities and currently reliant on equity funding, PV1 has mainly sourced financing through market issues, but we suggest on a prudent basis.

Exhibit 11: Issues over the past five years have been targeted to minimise dilution

	New Issue	Average Price	Total Raised	Opening	Closing Issue	
	'000s	A\$	A\$'000s		'000s	
FY22	95,622	0.12	11,462	452,118	547,780	
FY23	1,500	0.06	90		549,281	
FY24	51,336	0.04	2,050		600,617	
FY25	97,385	0.025	2,455		698,001	
FY26*	89,046	0.012	1,079		787,047	Placement to Yinson (zero cost) subject to shareholder approval (15 Aug)
TOTAL	334,929	0.051	17,084			

Source: Company data as of 10/07/2025, * FY26 placements not yet issued/completed

We note the completion of a 10m ordinary share placement to Yinson is subject to shareholder approval (15 Aug) and currently sits outside issued capital - on a diluted basis, the issued capital base is estimated to be 787m ordinary shares on completion;

Top 20 shareholding register

Exhibit 12 Register is dominated by the top 20

HOLDER	UNITS	%	
CITICORP NOMINEES PTY LIMITED	43,120,420	6.18	
HSBC CUSTODY NOMINEES (AUSTRALIA) LIMITED	37,340,153	5.35	
BNP PARIBAS NOMINEES PTY LTD <clearstream></clearstream>	31,582,594	4.52	
SPO EQUITIES PTY LIMITED <march a="" c="" equity="" street=""></march>	30,610,963	4.39	
SASIGAS NOMINEES PTY LTD <fletcher a="" brand="" c="" family="" m=""></fletcher>	13,050,000	1.87	
MARJACK HOLDINGS PTY LTD <carolan 2013="" a="" c=""></carolan>	13,000,000	1.86	
SIR KURT ANDREW HOULDEN	11,009,614	1.58	
J P MORGAN NOMINEES AUSTRALIA PTY LIMITED	10,086,910	1.45	
ASTRUM ENERGY & SHIPPING PTE LTD	8,000,000	1.15	
PROSPECT CUSTODIAN LIMITED	8,000,000	1.15	
BNP PARIBAS NOMINEES PTY LTD < IB AU NOMS RETAILCLIENT>	7,873,403	1.13	
PINE STREET PTY LTD <pine a="" c="" fund="" street="" super=""></pine>	7,237,860	1.04	
MR CRISTIAN MERLI	7,224,889	1.04	
MRS KYUNGNAN KIM + MR YEONGSOO JOO	7,199,986	1.03	
BNP PARIBAS NOMS PTY LTD	7,004,310	1.00	
MR FRANK HEPBURN	7,000,000	1.00	
JAMOCA PTY LTD <martin a="" c="" family=""></martin>	7,000,000	1.00	
FULL CIRCLE STRATEGY PTY LTD < ENDLESS POWDER S/F A/C>	6,000,000	0.86	
LEMON TREE WEALTH PTY LTD	5,878,340	0.84	
ENBRIDGE INC	5,572,854	0.80	
TOP 20 SHAREHOLDERS	273,792,296	35.06	
Total Issued Ordinary Shares	781,001,282		

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Appendix A – Standby Funding Facility (Convertible Bonds)^{[24].}

On 3 May 2024, the company secured a \$3m standby funding facility ('Facility') with Macquarie Bank Limited (MBL) in the form of Convertible Bonds (CB), over a term of two years. The Facility provides for the drawdown of CBs in tranches with each Bond having a face value of \$5,000 and free attaching call options.

An initial tranche of \$500,000 was drawn on 8 May 2024, with the issue of 100 CBs to MBL. As at the date of writing no further tranches have been issued.

As the settlement of the Bonds is either via repayment in cash on maturity or the issue of a variable number of the company's shares, the host contract is considered to be a financial liability.

A comprehensive outline of all terms and conditions can be referenced in the ASX releases. [18] [24]

Discount value	The funding received on draw down is at a discount, with PV1 receiving 93% of the face value of the Bonds
Drawdown	The Bonds will be issued in Tranches with Tranche 1 already drawn
	The issue of further Bond Tranches shall be at Provaris' discretion, however MBL can elect, at its discretion as to whether it subscribes for the additional tranche
	Unless otherwise agreed by MBL, (i) Provaris may only request the issue of a further tranche once at least 75% of the immediately preceding tranche has been converted and (ii) each further tranche capped at an aggregate Face Value or \$1.0m
	As at the date of this report the face value of the remaining Tranche 1 drawdowr was reported at A\$235,000
Maturity	Each tranche will have a term of two years and no further tranches may be issued after two years from the issue date of tranche 1 (8 May 2024)
Interest rate	3-month bank Bill Swap rate plus 1.5% calculated daily on the aggregate face value of the outstanding bonds and charged quarterly in arrears
Conversion	Conversion into fully paid shares can be made at any time prior to maturity at the election of MBI
	Should PV1 be unable to issue shares for any reason, the settlement can be made in cash at a price equal to the nominal conversion price X the higher of (A) the VWAP on the date on which the conversion notice ('Notice') is delivered and (B) the average VWAP on each of the three consecutive trading days prior to the issue o the Notice
Conversion price	The higher of (A) 92% of VWAP on the ASX trading day immediately preceding the date of the Notice and (B) the minimum conversion price (A\$0.036/share)
	If the VWAP over the 10 consecutive trading days is less than the minimum conversion price, then the minimum conversion price shall be set at A\$0.024/share
Attaching call options	
Number	MBL will receive 40,000 call options per \$5,000 Convertible Bond
Exercise price	150% of the VWAP of the five consecutive trading days preceding the issue of the tranche
Expiry date	Three years from the date of issue
Adjustments	The terms will be adjusted to comply with ASX listing rules related to reorganisations of capital

Exhibit 13: Selected key terms associated with the Convertible Bonds



Appendix B – European Hydrogen Backbone (EHB) Initiative

The **European Hydrogen Backbone (EHB)** has been described as a "...a visionary infrastructure project" launched by a coalition of 33 European gas transmission system operators. Covering 25 EU Member States (with Norway, the UK and Switzerland) and aims to accelerate Europe's decarbonisation and transition to a climate-neutral economy by developing a dedicated hydrogen transport network across the continent.

Core Objectives

- **Enable a competitive hydrogen market** by connecting supply and demand centres across Europe.
- Repurpose existing natural gas pipelines complemented by new-builds to provide a cost-effective hydrogen network.
- Enhance energy security and independence, given the current geopolitical tensions and the EU's REPowerEU strategy.
- **Support industrial decarbonisation** through delivering renewable and hydrogen to key sectors.

Infrastructure Vision

- **By 2030**: Establish five major hydrogen corridors linking ports, industrial hubs, and hydrogen valleys.
- By 2040: Expand to a <u>58,000km network, with 60% repurposed pipelines and 40% new</u>, covering nearly all EU countries.
- Estimated investment: €80–143 billion.

Strategic Importance

- Aligns with the EU's 'Fit for 55' and 'REPowerEU' packages.
- Reduces reliance on fossil fuel imports by promoting green hydrogen.
- Facilitates cross-border cooperation and market integration.

Governance & Collaboration

- Coordinated by Gas Infrastructure Europe (GIE).
- Backed by national TSOs and energy stakeholders across Europe.

Source: www.ehb.eu

Source: vb.nweurope.eu

European Hydrogen Backbone – R. van Rossum et al, April-2022

The EHB initiative draws on a diverse mix of public and private funding sources to support its infrastructure goals, including but not limited to:

European Union Financing Programmes

- Innovation Fund One of the world's largest funding programs for low-carbon technologies. It supports hydrogen production, storage and infrastructure projects.
- Connecting Europe Facility CEF Energy funds cross-border hydrogen pipelines and storage; CEF-Transport supports hydrogen refuelling infrastructure.
- **Horizon Europe** Funds research and innovation via the Clean Hydrogen Partnership.
- **InvestEU** Provides guarantees and loans for riskier hydrogen infrastructure projects.
- **European Hydrogen Bank** Financing instrument to accelerate the establishment of a full hydrogen value chain.

Source: energy.ec.europa.eu/topics/eus-energy-system/hyfrogen/European-hydrogen-bank_en

H2Global – intermediary providing a 'double auction' mechanism connecting buyers-sellers at an early stage of market development.

Source: www.h2-global.org/the-h2global-instrument

Private & Blended Finance

- European Investment Bank (EIB) Offers loans and blended finance for hydrogen infrastructure.
- Important Projects of Common European Interest (IPCEI) Enabling state aid for large-scale, crossborder hydrogen projects.





Source: European Hydrogen Backbone – R. van Rossum et al, April-2022



Appendix C – Risk Commentary And Observations

Although the company is on the cusp of delivering its first sanctioned projects there are remaining operational and corporate hurdles to navigate to the Final Investment Decision.

We don't intend for this commentary to provide a comprehensive scoping of the potential risks remaining but rather as a high-level overview of issues that need to be completed or with the potential to materially alter the path to market or cashflow as guided.

Corporate and operational

Tank Technology IP

The entire operational outlook of the company is based on its proprietary and innovative Tank Technology IP which is currently in a research and development stage with the prototype tank fabrication yet to be completed and testing (for certification) yet to commence.

We highlight the delays to fabrication and testing were caused by issues well beyond the control of the company but the impact has been to push back targeted start-up timing to 2029, from earlier estimates of 2027.

Scaling up to the commercial parameters (12m diameter - 127m length) is also a nominal risk from the perspective of timing, complexity and cost, with incorporation into the tanker, as it will all be a 'first' and if there are going to be an operational delays and cost issues, it is usually magnified in the initial works.

As a rule, from our current observations in the energy and mining industries, new projects are taking longer and costing more, even if they are twinning adjacent working analogues and applying low risk designs and methodologies.

Once prototype testing is completed and certified, the process becomes "engineering" and to an extent repetition – the more tanks that are successfully completed and fitted, the more efficient the process becomes from a time and cost perspective.

We don't see the risks as material at this stage but transference of IP to commerciality remains an obvious and tangible risk to FID and future growth until completion of fabrication and certification is achieved.

Multiple projects and 'shake-down' operations

The company has two compressed hydrogen projects broadly heading into the same time and space, which will require 2x2 H2Neo carriers and 2x1 H2Leo barges as a 'startup' when there isn't an existing working prototype.

With multiple projects heading to FID and emerging business streams (CCS, 'tank storage', Port of Rotterdam) all of which will demand attention, there is the potential for management time and resources to be stretched. However, we understand the company through its key commercial partners has access to relevant technical and operational resources to supplement Provaris requirement's.

Although Provaris is not the vessel builder, it is a part of the process to project start-up that is beyond its immediate control, so will represent an undefined overhang with the potential to push out the start date on a worst-case scenario.

There are invariably intrinsic operational issues and risks on a start-up basis which can be exacerbated given the 'first to market' nature which can also imply 'first to mistakes'. How do the tanks perform in a practical setting, the efficiency of the loading/unloading infrastructure and the integration into port facilities are a few of the pieces interlinking A to B.

We note that although the responsibilities for the construction and integration of infrastructure at the port of destination is to the buyer, any material issues can blow back down the process line.

Scheduling

...loading, unloading times, scheduling, coordination from production to delivery.



These are not project specific risks per se and the scheduling is likely to utilise a tried and tested algorithmic solution. Given historical maritime practices, we'd suggest this is a low risk issue and would simply be an operational risk within the normal course of business.

Financing

With no current cashflow from operations, the company is strongly dependent on equity financing. Whilst the company has managed its capital base prudently in the period of review (refer **Exhibit 11**), delays to start-up or cost blowouts could result in further calls on equity.

The dominant reliance on equity financing is not unusual for companies in a proof-of-concept/predevelopment stage of working their assets.

We would highlight that whilst raising equity is dilutive in an absolute sense, the company is at a position on the path to project start-up that share dilution could be materially offset by the unwinding of risk as projects move into FID then cash flow.

Success brings competition

We reiterate our earlier commentary that "...(t)he success case should represent the starting domino, although we caution that the path to first production is not always linear or keeps to the timeline as planned – but all projects have to start somewhere and Provaris has delivered well beyond the conceptual".

It is worth noting that the company holds a significant design and development lead time across the industry and the delivery of competitive alternatives is likely to require a material 'event' to catalyse independent research and development. The 'moat' Provaris has is the timeline and novel design characteristics with pending tank certification after testing to meet rigorous approval criteria.

An industry example is the French engineering company GTT who specialise in membrane containment systems for LNG tanks. Their innovative technology has become the industry standard with 80% market share using a license model.

However, the commercial opportunities associated with hydrogen and CCS sectors are somewhat open-ended and it's unlikely one company can establish a monopoly position. To catch up, all it takes is time and money – the 'size of the prize' can be the driver and after all, it's just engineering in simplistic terms.

We do not infer that Provaris cannot become a potentially dominant player in the provision of innovative tank IP, but simply highlight that given 'the size of the prize!' in the offing and on a success case basis, the next version of tank technology may emerge sooner than anticipated.

In the meantime, the market potential, strategic partnerships and sunk capital (intellectual and monetary) simply reinforces the company's early-mover advantage.

The macro - hydrogen and the energy transition; and carbon capture

We would note the depth of readily accessible, publicly available studies on the outlook for European hydrogen demand and supply; and carbon capture and storage initiatives.

We do not intend to forensically analyse the assumptions behind the forecasts but rather highlight some consensus outcomes on the direction and growth magnitude of the sector, highlighting where necessary the potential benefits and risks to Provaris' business model.

We draw specifically from referenced presentations and publications as noted.^{[10], [12], [22], [24]}

European hydrogen - the actual is not matching the ambition

In broad terms the consensus outlook is that developing a hydrogen economy is a cornerstone requirement for the achievement of the 2050 Net Zero target as well as in the consideration of the interim 2040 target.

The European Union has set a legally binding target to become climate-neutral by 2050 as the cornerstone of the European Green Deal and enshrined in law through the European Climate Law in 2021.



It is somewhat arguable as to whether the target is achievable in practical terms given the obvious financial and infrastructure hurdles – requiring "...over US\$32 Tr in investments across energy, transport, buildings, and industry" and an "...(a)nnual investment in clean energy (that) must triple this decade and quadruple in the 2030s to stay on-track".

Hydrogen is expected to plays a pivotal role in reaching the 2050 Net Zero target especially in sectors where direct electrification is difficult or inefficient, for example transport and heating, which together account for nearly half of energy-related CO_2 emissions.

Abatement "...demands a huge expansion and digitalisation of the power grid, with \$3.8 trillion needed for grid upgrades alone".

The EU launched its Hydrogen Strategy in 2020, with ambitious aims including -

- Installation of 40 GW of renewable <u>hydrogen electrolysers in the EU by 2030</u>;
- To produce 10Mt of renewable hydrogen domestically and import another 10Mt by 2030;
- Prioritising renewable hydrogen over fossil-fuel derived hydrogen (...currently hydrogen accounts for less than 2% of Europe's energy use).

The ambition is admirable and challenging, with a complex set of obstacles across supply, demand, infrastructure, regulation, and finance.

Despite targets of 20Mt of hydrogen consumption by 2030, current (2024) renewable hydrogen production stands at just 0.02Mt pa and current forecasts indicate regulated demand of only 2.2–2.8Mt by 2030.

Currently high production costs for renewable hydrogen are indicated to be a detriment to the signing of long-term SPAs. In most any energy supply project, financing is underpinned by bankable sales gas agreements. The net result is the slowing rollout of capacity expansion and market penetration (replacement).

Building a pan-European network of electrolysis plants, pipelines, storage facilities, and refuelling stations **requires massive coordination and capital**. We have addressed the strategy of the European Hydrogen Backbone...the plan is in place.

Like many of the EU climate policies, "...hydrogen policy is currently overly regulatory in nature, rather than a more market driven approach with technological neutrality."

The Renewable Energy Directive (RED III) sets ambitious sectoral quotas for RFNBO yet leaves significant flexibility to member states in how they transpose and enforce these rules. **Divergent approaches to obligations, exemptions, and certification standards risk creating market imbalances and legal uncertainty**.

Mobilising the estimated tens of billions needed for electrolyser build-out **hinges on clear incentives**. **Instruments like Carbon Contracts for Difference can de-risk early investments**, but the contract design and scale appears to remain undefined. Without a stable, implementation-focused regulatory framework, investor appetite may remain muted.

It has been suggested that European governments have made low to moderate progress on numerous key performance indicators (KPIs) for low-carbon hydrogen despite the EU announcing one of the largest budgets globally for hydrogen support. Government funding and local content requirements are the only areas showing notable advancement, while many other KPIs—such as binding offtake quotas, infrastructure roll-out, certification standards, and demand stimulation remain underdeveloped.

More ambitious policy implementation is needed to kickstart a European hydrogen market.

"Northwest Europe is at the forefront of low-emissions hydrogen development. This region accounts for around 40% of Europe's total hydrogen demand, and it has vast and untapped renewable energy and carbon storage potential in the North Sea. It also has a well-developed, interconnected gas network that could be partially repurposed to facilitate the transmission and distribution of low-emissions hydrogen from production sites to demand centres".



European carbon capture - a multi-layered strategy with multi-layered uncertainties

"The European commitment to Carbon Capture and Storage (CCS) is gaining momentum, driven by the urgency to meet climate neutrality by 2050.

There were 191 commercial-scale CCS projects in development as of mid-2024 and Europe is witnessing a surge in policy, legal, and regulatory initiatives at both EU and national levels".

https://www.globalccsinstitute.com/resources/insights/ccs-in-europe-a-regional-overview/

Despite strong political support, carbon capture and storage in Europe is considered to be facing multiple hurdles that risk delaying implementation and scale-up.

- Prohibitive Costs and Funding Gap:
 - Average CCS project pipeline could total around €520bn, requiring roughly €140bn to bridge the gap to commercial viability.
 - High capture, transport and storage costs of €130–150/tCO₂ as cited.
- Low Technology Readiness it is estimated that over 90 % of proposed European CCS capacity sits at prototype or demonstration stage only.
- Regulatory Uncertainty and Fragmentation:
 - Overlapping legislation (CCS Directive, Gas Directive, Net-Zero Industry Act, RED III), often transposed differently across member states
 - Regulatory uncertainty on liability, cross-border transport and storage permitting remain incomplete.
- Permitting Delays and Infrastructure Bottlenecks:
 - Multi-agency approvals required with few Member States having streamlined processes in place.
 - Cross-border CO₂ transport corridors lack unified Network Development Plans.

It has been suggested that overcoming these barriers will require coordinated EU-level action, sharper carbon pricing, binding demand obligations, smoothed permitting rules and dedicated public-private funding mechanisms.

Over-regulation, confused and conflicting regulatory processes seems to be typical where there are multijurisdictional influences and a political overlay.

With ambitious hydrogen and carbon mitigation plans as part of an ambitious over-arching 2050 net zero target logically leads to risks and issues with project roll-out, particularly in cross-border transactions, whether that be international or state jurisdictions.

As we have commented previously and observed across the energy and resources sectors, all things are taking longer and costing more. The bigger the ambition, the longer and more costly that is likely to be and if there is one overlay that is bankable, it's that.

In terms of Provaris' business plans and growth outlook, the macro issues represent risk at the margin, in our view as there should be sufficient inherent growth in the macro strategy on a project-specific basis, to provide expansion options – though it may manifest at a slower pace.

A potential left-field benefit may be that it cements the company's early-mover advantage as fewer projects available would logically favour incumbent parties, particularly those with a technology lead.



Exhibit 15: Financial Summary

PROVARIS ENERGY	LTD	PV1 Jun				nm = not meaningful na = not applicable
NAV	A\$mn	\$0.16				na = not applicable
SHARE PRICE	A\$cps	\$0.014 i	ntraday		10-Jul	
MARKET CAP	Ascps A\$mn	00.014_1 11	niidudy		10-Jul	
ORDINARY SHARES	M	781				
OPTIONS	M	72				
	101	12				
RATIO ANALYSIS		FY23	FY24	FY25E	FY26E	EQUITY VALUATION
Shares Outstanding	M	549	601	698	781	A\$mn
EPS (pre sig items)	Acps	(2.26)	(1.07)	(0.61)	(0.54)	
EPS	Acps	(2.26)	(1.07)	(0.61)	(0.54)	Compressed Hydrogen
PER	×	na	na	na	na	Tank Technology IP
OCFPS	Acps	na	na	na	na	
CFR	x	na	na	na	na	
DPS	Acps	na	na	na	na	
Dividend Yield	%					Net cash/(debt)
BVPS	Acps	0.79	0.04	0.05	0.02	Corporate costs
Price/Book	x			0.3x	0.6x	
ROE	%	na	na	na	na	TOTAL
ROA	%	na	na	na	na	Shares on issue (M)
(Trailing) Debt/Cash	x	na	na	na	na	Shares on issue (M)
Interest Cover	x	na	na	na	na	
Gearing dn/(dn+e)		na	na	na	na	
EARNINGS	A\$000s	FY23	FY24	FY25E	FY26E	CASHFLOW
Income from non-operat	ing activities	586	342	500	500	Operational Cash Flow
Corporate and admin		(4,138)	(4,059)	(4,100)	(3,793)	Net Interest
Project development		(3,235)	(2,314)	(505)	(950)	Taxes Paid
Amortisation of intangib		(207)				Other
Derecognition of intangi	ble asset	(5,179)				Net Operating Cashflo
Share based payments		(234)	(104)	(15)		Payments for Acquisition
EBIT		(12,407)	(6,135)	(4,120)	(4,243)	Proceeds from sales
Profit/(Loss) before tax		(12,407)	(6,135)	(4,120)	(4,243)	Dividends received
Tax payable						Other
						Net Investing Cashflor
Profit/(Loss) after tax		(12,407)	(6,135)	(4,120)	(4,243)	Share Issues
Other Comprehensive P	rofit/(Loss)	(2)	(0.5)	-	-	Convertible bonds
Forex	5 1/0	(9)	(25)	0	0	Option exercise
Total Comprehensive Pr	ofit/(Loss)	(12,416)	(6,160)	(4,120)	(4,243)	Net debt movement
					FY26E	Other
DAL ANOF OUEFT		EVOO				Net Financing Cashflo
	A\$000s	FY23	FY24	FY25E		
Cash	A\$000s	5,070	744	653	247	Net Obergenie Orek
Cash Prepayments	A\$000s	5,070 0	744 224	653 100	247 100	Net Change in Cash
Cash Prepayments Other	A\$000s	5,070 0 159	744 224 260	653 100 434	247 100 500	Net Change in Cash
Cash Prepayments Other Total Assets	A\$000s	5,070 0 159 5,229	744 224 260 1,227	653 100 434 1,187	247 100 500 847	Net Change in Cash
Cash Prepayments Other Total Assets Payables	A\$000s	5,070 0 159 5,229 782	744 224 260 1,227 571	653 100 434 1,187 500	247 100 500 847 350	Net Change in Cash
Cash Prepayments Other Total Assets Payables Provisions	A\$000s	5,070 0 159 5,229	744 224 260 1,227	653 100 434 1,187	247 100 500 847	Net Change in Cash
Cash Prepayments Other Total Assets Payables Provisions Debt	A\$000s	5,070 0 159 5,229 782	744 224 260 1,227 571 129	653 100 434 1,187 500 205	247 100 500 847 350 255	Net Change in Cash
Cash Prepayments Other Total Assets Payables Provisions Debt Convertibles	A\$000s	5,070 0 159 5,229 782 115	744 224 260 1,227 571 129 299	653 100 434 1,187 500 205 71	247 100 500 847 350 255 71	Net Change in Cash
Cash Prepayments Other Total Assets Payables Provisions Debt Convertibles Total Liabilities		5,070 0 159 5,229 782 115 897	744 224 260 1,227 571 129 299 999	653 100 434 1,187 500 205 71 816	247 100 500 847 350 255 71 676	Net Change in Cash
Cash Prepayments Other Total Assets Payables Provisions Debt Convertibles		5,070 0 159 5,229 782 115	744 224 260 1,227 571 129 299	653 100 434 1,187 500 205 71	247 100 500 847 350 255 71	Net Change in Cash
Cash Prepayments Other Total Assets Payables Provisions Debt Convertibles Total Liabilities Total Net Assets/Equ		5,070 0 159 5,229 782 115 897 4,332	744 224 260 1,227 571 129 299 999 229	653 100 434 1,187 500 205 71 816 371	247 100 500 847 350 255 71 676 171	Net Change in Cash
Cash Prepayments Other Total Assets Payables Provisions Debt Convertibles Total Liabilities Total Liabilities Total Net Assets/Equ Net Cash/(Debt)		5,070 0 159 5,229 782 115 897 4,332	744 224 260 1,227 571 129 299 999 229	653 100 434 1,187 500 205 71 816 371	247 100 500 847 350 255 71 676 171	Net Change in Cash
Prepayments Other Total Assets Payables Provisions Debt Convertibles Total Liabilities Total Net Assets/Equ Net Cash/(Debt) Share Capital Reserves		5,070 0 159 782 115 897 4,332 5,070 85,901 3,856	744 224 260 571 129 299 999 229 445 21,078 3,963	653 100 434 1.187 500 205 71 816 371 582 23,259 6,044	247 100 500 847 350 255 71 676 171 176 25,338 8,008	Net Change in Cash
Cash Prepayments Other Total Assets Payables Provisions Debt Convertibles Total Liabilities Total Liabilities Notal Net Assets/Equ Net Cash/(Debt) Share Capital		5,070 0 159 5,229 782 115 897 4,332 5,070 85,901	744 224 260 1,227 571 129 299 999 229 445 21,078	653 100 434 1,187 500 205 71 816 371 582 23,259	247 100 500 847 350 255 71 676 171 176 25,338	Net Change in Cash

	92	132	156	\$0.12	\$0.17	\$0.20
Net cash/(debt)		1				
Corporate costs		(10)				
Corporate costs		(10)				
TOTAL	83	123	147	\$0.11	\$0.16	\$0.19
Shares on issue (M)	781					
Shares on issue (M)	791	diluted		\$0.10	\$0.16	\$0.19
CASHFLOW	P	\$000s	FY23	FY24	FY25E	FY26
Operational Cash Flow			(6,410)	(6,280)	(3,977)	(4,425
Net Interest			155	68	6	10
Taxes Paid						(
Other						
Net Operating Cashflow			(6,565)	(6,348)	(3,983)	(4,435
Payments for Acquisitions						
Proceeds from sales						
Dividends received						
Other				(209)		
Net Investing Cashflow			0	(209)	0	
Share Issues				1,900	2,181	1,079
Convertible bonds				465		
Option exercise						
Net debt movement						
Other				(150)	(236)	1,000
Net Financing Cashflow			0	2,211	1,946	2,014
Net Change in Cash			(6,565)	(4,346)	(2,037)	(2,421

Risked Range

Low

37 55 Mid

46 86 High

52 104 Mid

A\$/share

\$0.06 \$0.11

Low

\$0.05 \$0.07 High

\$0.07 \$0.13

Source: RaaS Research Group



References, Data Sources and Glossary

Note Reference	Document Ref	Data referenced in this Report	Date Published	Title/Source
[1]		Provaris Energy ASX release (Investor Presentation)	24-06-2025	'Enabling critical storage and maritime infrastructure for the energy transition'
[2]		Provaris Energy ASX release	20-06-2025	Partnership with K LINE to Accelerate Hydrogen Shipping
[3]		Provaris Energy ASX release	18-06-2025	LCO2 Design Milestone and Yinson Joint Venture
[4]		Provaris Energy ASX release (Investor Presentation)	14-02-2024	'Pioneering CO2 tank solutions to capitalise on a rapidly expanding global market'
[5]		Provaris Energy ASX release	12-07-2024	Quarterly Activities Report June 2024
[6]		Provaris Energy ASX release	24-04-2024	Quarterly Activities Report March 2025
[7]		Yinson Production news release	19-02-2025	Yinson Production completes acquisition of Stella Maris CCS, expanding its carbon capture and storage ecosystem
[8]		K Line news release	17-06-2025	K LINE and Yinson Production partner to jointly develop and market FSIU and liquefied CO2 carrier solutions Liquefied Gas Business News Releases Kawasaki Kisen Kaisha, Ltd.
[9]		Provaris Energy ASX release	18-02-2025	Commercial update Capital Lite revenue model and hydrogen supply chain progress
[10]		Global Market Insights	Feb-2025	https://www.gminsights.com/industry-analysis/europe-hydrogen- market
[11]		International Energy Association (IEA)	May-2025	Northwest European hydrogen monitor https://www.iea.org/reports/northwest-european-hydrogen- monitor-2025
[12]		DNV Outlook series	12-06-2025	Energy Transition Outlook 2024
[13]		Provaris Energy ASX release	12-12-2022	World first design approval for compressed hydrogen carrier
[14]		Provaris Energy ASX release	19-04-2023	Launch of Compressed H2 Floating Storage solution
[15]		Provaris Energy ASX release	31-10-2023	Quarterly Activities Report September 2023
[16]		Provaris Energy ASX release	08-01-2024	DNV engaged for class approval
[17]		Provaris Energy ASX release	05-06-2024	Delays to Prototype Tank completion and SPP issue date
[18]		Provaris Energy ASX release	29-08-2024	2024 Annual Report
[19]		Norwegian Hydrogen	20-05-2025	https://norwegianhydrogen.com/news/new-partnership-with- provaris-and-uniper-for-regional-supply-of-hydrogen
[20]		Provaris Energy ASX release	27-06-2023	Collaboration Agreement signed for joint development of the 270MW FjordH2 Project in Norway
[21]		Provaris Energy ASX release	06-01-2025	Term Sheet for hydrogen supply and offtake with Uniper
[22]		Provaris Energy ASX release	12-03-2025	Norway H2 and CO2 Development Programmes Advancing
[23]		Provaris Energy ASX release	24-04-2025	GES and Provaris to Develop Rotterdam H2 Import facility
[24]		Provaris Energy ASX release	03-05-2025	Provaris secures a two-year \$3 million standby funding facility with Macquarie
[25]		The Oxford Institute for Energy Studies	Jun-2024	2024 State of the European Hydrogen Market Report

All financial data in Australian currency unless otherwise specifically stated

FEED	Front End Engineering and Design	CCS	Carbon capture and storage			
FID	Final Investment Decision	FPSO	Floating Production Storage and Offtake			
SPA	Sales and Purchase Agreement	CO ₂ / CO ₂ -e	Carbon dioxide / Carbon dioxide equivalent			
		H ₂	Hydrogen			
RFNDO	Renewable fuels of non-biologic origin					
RED	Renewable Energy Directive (legal framework for the development of renewable energy across all sectors of the EU economy)					



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